



Skydio Dock for X10 Flight System

Operator Manual



Updated: May 12, 2026

Software: Cayley v43.147.53

NOTE:

Please read all documentation provided with your Skydio Dock for X10, including but not limited to the Skydio Safety Guidelines in the Safety and Operating Guide: www.skydio.com/safety. Failure to follow any instructions or recommendations in our documentation may void the Skydio Limited Warranty or other terms and conditions.

Revision History

| Revision | Software Version and Description | Date |
|----------|---|------------------|
| 1 | Battin v40.249 <ul style="list-style-type: none"> Initial Release | October 15, 2025 |
| 2 | Cayley v43.41.68 <ul style="list-style-type: none"> Updated to incorporate new features, enhancements, and operational updates introduced in the Cayley release | January 22, 2026 |
| 2.1 | Cayley v43.147.53 <ul style="list-style-type: none"> Added notice of the ability to sync pre-planned Map Capture Missions with X10 Controller Pilots Added Auto-Off When Using Boost NightSense Remote Flight Deck Setting | March 11, 2026 |
| 2.2 | Updated Dock for X10 power load requirements | April 15, 2026 |
| 2.3 | Updated the Dock Standby Wind Limitation | May 12, 2026 |

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How to Use this Manual

Overview

This manual has been created to prepare the Remote Pilot in Command (RPIC), Small Unmanned Aircraft System (sUAS) Program Manager, and any additional members of an organization's flight crew for safe use of the Dock for X10 Flight System.

In this resource, five primary phases of operational use will be described. While preparing for operation, note that the context and conditions of use may vary depending on an organization's objectives or operational environment. Evaluating the environment for hazards, identifying known issues with the flight system, and ensuring general preparedness are the responsibility of the RPIC for each flight.

Organizations operating the Dock for X10 Flight System beyond the Remote Pilot's visual line of sight (BVLOS) are required to carry a valid Certificate of Authorization or Certificate of Waiver from the Federal Aviation Administration (FAA).

It is recommended that new Remote Pilots, those transitioning into remote operations, and experienced Remote Pilots alike understand all flight system components and Skydio's guidelines on system operation covered in this manual. Prior to flying in applied contexts, it is recommended that RPICs achieve operational skillsets via hands-on practice in both classroom and field-based training environments. Safe, skillful use of any flight system requires continuous education and development of physical skillsets. See *Additional Resources* below for more information on programming provided by Skydio.

Using this Manual

The Dock for X10 Flight System has been specifically designed for operational use in commercial, industrial, and safety-critical applications. System readiness, operability, and reliability are achieved and maintained through the best practices that have been collated into this resource.

Depending on need, this manual can be leveraged at any time by navigating to a specific section. This manual is a living, controlled document and is regularly revised as flight system updates become available. This manual is uncontrolled when printed. Refer to the title page of this manual to find the most recent version and date of publication. The most recent version of this document can be accessed via Skydio Support.

This manual is organized into five primary phases of operation:

- 1. Initialization:** Completed at first installation and with each addition or modification of a flight system component, initialization ensures that all components of the sUAS are functional for safe and effective flight. Updates, repairs, and replacements may be required to achieve or maintain operational readiness. Reconfiguring the flight system may be required for specialized operations.
- 2. Operations Planning:** Objectives of the flight operation are determined during operations planning. The date, time, location, duration, and desired outcomes of the flight operation (among other variables) will determine the flight system configuration, flight settings, crew members, and other resourcing needed for a successful flight. Use of the **Missions** tab in Skydio Cloud is recommended during this phase, when applicable.
- 3. Preflight:** The successful achievement of preflight objectives immediately prior to launch ensures that the sUAS is operationally ready, the environment is free from any observable hazards, and the RPIC is ready for safe operation. A remote preflight inspection procedure leverages the Dock for X10 situational and inspection cameras, cloud-based device health readings, and system gauges to clear the sUAS for operation.
- 4. Inflight Operations:** Launching, landing, and all drone activity while in flight defines inflight operations. Objectives related to flight crew communications, situational awareness, and high-integrity data capture take precedence for

safe and effective remote piloting of the aircraft.

- 5. Postflight:** Once the Skydio X10 has returned to the Dock, postflight objectives include logging the flight, securing any reports or records, mission-related photogrammetry or evidentiary workflows, and preparing the system for future use.

Additional information regarding the objectives covered in each phase of operation can be found in the respective sections of this manual.

Prior to engaging in any operational use of the flight system and throughout, it is recommended that safe use (delineated in Skydio's Dock for X10 Safety Guidelines) be practiced and reinforced.

Warnings and Advisories

Throughout this manual, warnings and advisories highlight important information and potential hazards related to operational use of the flight system.

Each safety-related Warning reflects a corresponding level of criticality:

Danger

Indicates an immediate and unavoidable threat of death or serious injury.

Examples include: Exposed high-voltage equipment or unguarded machinery with moving parts.

Warning

Indicates a potentially dangerous situation where death or serious injury could occur if precautions are not taken.

Examples include: falling objects or entering an active landing zone during an autonomous return.

Caution

Indicates a potentially hazardous situation where minor or moderate injury could occur if precautions are not taken. Also used to highlight actions that could result in

hardware damage, flight performance issues, or non-compliance with operational standards.

Examples include: Pinch and crush points, handling hot batteries, pointing a thermal camera at the sun.

Note

Information advisories are indicated by Notes and may include information related to effective use of the flight system or special considerations.

Notes provide additional context, clarification, or detail that supports understanding of a feature, setting, or behavior. Notes do not indicate risk or required action.

Examples include: Linking to related sections, reminders of unsupported configurations, or clarifying system behavior in specific conditions.

Flight Crew Roles

This manual focuses primarily on the responsibilities of Organization Admins and Remote Pilots in Command (RPICs), who are typically the primary operators and system managers in a remote operations workflow. However, all flight crew members—including Cloud Users—are responsible for reading this manual and understanding how the system functions to support safe, compliant, and effective operations.

Role Responsibilities

Organization Admins

Organization Admins manage system-level settings in Skydio Cloud. Admins are responsible for tasks such as maintaining fleet and equipment readiness, managing integrations, assigning user roles, and ensuring compliance with regulatory and organizational policy.

Remote Pilots

Remote Pilots, or RPICs, conduct missions via Remote Flight Deck (RFD, the drone's remote Ground Control System), operating drones remotely rather than in person. This could include tasks such as piloting the sUAS, managing autonomous flights, monitoring live video feeds, and maintaining mission oversight from a command center or dispatch location.

The RPIC is solely responsible for the safe operation of the flight system during all phases of operation. Remote Pilots may also be referred to as RPICs, Remote Pilots, or Pilots in this manual.

Cloud User

Cloud Users view and manage data in Skydio Cloud. This can include viewing and running flight reports, viewing, sharing, and deleting media, and viewing the device health pages. The Cloud User role is assigned to personnel who need access to data in the cloud but won't be flying remotely, such as a data analyst.

Key Concepts

The following foundational concepts are mentioned throughout this manual:

Early Access Program (EAP)

Early Access Programs provide select customers with the opportunity to try out upcoming features or products, which can help inform early development. These programs help customers prepare for new capabilities early on and allow Skydio to gather user feedback regarding feature utilization and implementation. Skydio representatives may be contacted to provide additional information.

Beta / Closed Beta

Prior to making a product generally available, certain products may go through a Beta program. Features or products that are labeled Beta may have known limitations. Beta features may be new, experimental, or in active/late stage development.

Open Beta features are indicated by the 'Beta' tag; Closed Beta features require special authorization to access via Skydio's services teams. Skydio representatives may be contacted to provide additional information.

Flight System Updates: Software, Firmware, and Cloud Releases

Skydio regularly releases updates across the entire flight system. These updates may deliver new features, improve performance, or resolve known issues. A single release may include a variety of updates across different parts of the system:

- **Software** updates apply to the physical components of the flight system (such as drones, Docks, External Radios, etc.) that control how the drone or Dock operate (e.g., updated autonomous behavior). Administrators will use Skydio Cloud to update the software on their devices. Software updates for devices are initiated by the user.
- **Skydio Cloud** release updates will be delivered directly to the Skydio Cloud platform, which could include minor interface improvements or new features

to the Cloud platform or Remote Flight Deck. Skydio Cloud release updates are delivered automatically.

Releases are accompanied by release notes, which explain both new and improved features as well as known limitations and bug fixes. Release notes provide important details about how the updates will affect operations.

When a new release is published, customers will receive an email notification as well as in-Cloud alerts. It is the RPIC's responsibility to read the release notes and keep the flight system updated to ensure safe and effective operations.

Additional Resources

Training and Education

Skydio Academy: Online courseware with continuous access

Dock for X10 Flight System Operator Certification programming will soon be available via Skydio Academy to supplement knowledge and skill development, with modules applicable to all members of the flight crew. Skydio X10 drone courses can be accessed at any time.

A video library and suite of online courses facilitate continuous development and are regularly updated to reflect the addition of new flight system components, modifications, or updates.

Visit <https://www.skydio.com/skydio-academy> to get started.

Skydio Dock for X10 Operator Certification: Instructor-led skills training conducted on-site

On-site training, led by Skydio Instructors, is available for organizations seeking Skydio Dock for X10 Flight System Operator Certification and other instructor-led training solutions for all Skydio products and flight systems.

Become certified with Skydio Expert Operator or Train the Trainer programs through multi-day live training options. Skydio Instructors will visit and train staff on-site with Classroom and Live Flight Operations.

Contact us at training@skydio.com to schedule Live Training.*

**Live Training can be purchased through your Skydio Account team.*

Flight Simulation in Skydio Paraverse: Develop skillsets on simulated drones in Remote Flight Deck

Become familiar with Remote Flight Deck using the Skydio simulator, test integrations, and explore Skydio DFR Command all with Skydio Paraverse.

Learn more at <https://www.skydio.com/get-paraverse>.

System Readiness and Safe Use

Skydio Support

Visit Skydio Support support.skydio.com to view additional support resources for all Skydio products and Flight Systems. View Safety Guidelines, Help Articles, Release Notes, Notices to Operators (NTOs), and much more.

- [Skydio Safety and Operating Guide](#)
- [Notices to Operators \(NTOs\)](#)
- [Release Notes](#)

Notices to Operators

Skydio may issue a Notice to Operators (NTO) when we identify new safety or compliance risks, often as the result of newly-discovered software issues or unexpected edge cases. Read each NTO carefully to determine which parts of the flight system may be affected.

NTOs are designed to help RPICs avoid safety-critical issues that could affect flight safety and operations. The notice offers background information about the issue along with actionable, temporary mitigation guidance while long-term solutions are in progress.

Skydio updates NTOs whenever new information becomes available or a fix is released to ensure that RPICs are provided with timely information for mission planning.

NTOs are published on Skydio Support, and all Skydio Cloud users are notified via email and in-Cloud alerts when a new notice is issued or updated. It is the responsibility of the RPIC and the flight crew to review NTOs during mission planning and preflight operations to help maintain safe use of the flight system.

View the list of [current NTOs on our Support Site](#).

Notice Regarding Printed Copies


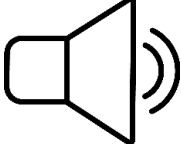
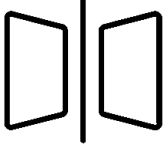


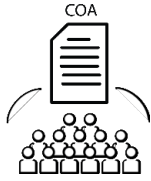
This manual is subject to updates. For the most current procedures, safety information, and operational guidance, refer to the online version of the manual on our Support site. Printed or locally stored copies may become outdated and should not be relied upon as the sole source of truth.

It is the responsibility of the operator to ensure they are referencing the most recent version available online.

Modifications and derivative works of this manual are not authorized without written permission from Skydio. Please contact support@skydio.com for inquiries.

Dock for X10 Flight System

Safety Guidelines

| | | |
|--|---|--|
|  <p>To prevent serious bodily injury while the Dock for X10 or Drone are in motion, all personnel in the Dock operational area must maintain a 7 ft (2.1 m) distance. Remote Pilots are responsible for ensuring launch and landing areas are safe and clear for use.</p> |  <p>Users must observe all Safety Lighting and Audible Alerts on the Skydio Dock for X10, which caution users to avoid moving parts during operation.</p> |  <p>Remote Pilots must exercise caution when flying the drone near reflective surfaces and near small or thin obstacles. Reflective surfaces greater than 23 in (58 cm) wide (e.g., still water, mirrored windows) pose risk of interference with flight system visual navigation. Thin obstacles (thin branches, chain link fencing, wires, etc.) may also be difficult for the drone to detect.</p> |
|  <p>Obstacle avoidance only applies to stationary objects. The drone should not be piloted in proximity to moving objects, including but not limited to other aerial vehicles, cars, and/or animals. The Remote Pilot must yield to all crewed aircraft and perform a Safe State Maneuver if they encounter air traffic or moving obstacles that conflict with their flight path.</p> |  <p>To reduce the risk of electromagnetic interference (EMI), Remote Pilots must maintain a distance of at least 10 ft (3.0 m) between the X10 Drone and emitters (including cell towers).</p> |  <p>Remote Pilots must not operate directly over people and moving vehicles without following all required regulations and garnering any required Certificates of Waiver or Authorization (COA).</p> |



Skydio X10 is IP55 rated and able to fly in light to moderate rain; however, precipitation may interfere with reliable obstacle avoidance functionality by occluding the navigation cameras. Remote Pilots should disable obstacle avoidance when flying in precipitation.



All users of the flight system are responsible for following FAA and country-specific civil aviation authority regulations, as well as local, state, and federal laws and regulations when operating Skydio X10.



To remotely operate docked drones, a beyond visual line of sight (BVLOS) approval is required.

General Safety Information

DANGER

Risk of electric shock or severe burn.

Do not handle or access any electrical components within the Dock for X10. All servicing and repairs must be performed only by Skydio-authorized technicians. Before performing any maintenance or inspections, always power off and lock-out all electrical equipment.

Risk of serious bodily injury or death.

Keep all limbs and body parts away from the Skydio X10 drone while it is in motion or in flight. Contact with moving propellers can cause severe injury or death.

Risk of serious injury or death from moving parts.

The Skydio Dock for X10 contains motorized components that can close or move unexpectedly, creating hazardous pinch points. Keep clear of all moving mechanisms and obey all labels and warnings on the Dock.

Risk of serious bodily injury or death.

Do not handle the flight system while safety lighting or audible alerts are active. Active alerts indicate that the drone or Dock components may move unexpectedly and cause severe injury.

Risk of serious bodily injury or death during Emergency Landing.

If the drone enters Attitude Mode, it will automatically descend and perform an Emergency Landing without pilot control. Emergency Landings cannot be canceled. Use extreme caution when operating with a single navigation source to reduce the risk of collision and serious injury. For more information, see: *Inflight > Emergency Landing*.

WARNING

Risk of serious injury or loss of flight safety.

Follow all General Care recommendations for the flight system as outlined in the *Dock for X10 Maintenance Manual*. Do not modify, repair, or service any components unless authorized by Skydio. All maintenance and repairs must be performed only by Skydio-authorized technicians or field teams, unless otherwise

WARNING

approved in writing. Unauthorized work may compromise flight safety, cause serious injury, and void the Skydio Limited Warranty or other applicable terms and conditions.

Risk of serious injury from rotating propellers.

Propeller blades are sharp and can cause severe injuries. Keep fingers, hands, and all body parts away from moving propellers at all times. Handle propellers with extreme caution and care.

Risk of serious injury or system damage.

Flight system use carries inherent risk; any operational use external to the guidelines described in this manual may incur undue operational risk, serious injury, or damage to the flight system, and violate the terms of Skydio's Limited Warranty, Skydio Care, or other terms and conditions.

Risk of collision or serious injury due to unintended flight commands.

Before flight, disable Sticky Keys on the computer keyboard. Sticky Keys can interfere with the pilot's ability to operate the drone safely and may cause unintentional flight commands, potentially resulting in a collision or serious injury. Refer to the computer's operating system manual for instructions on disabling Sticky Keys. Before each flight, ensure Sticky Keys are turned off if the setting cannot be disabled permanently.

Risk of collision or serious injury from uncommanded drone movement.

If the gamepad controller has loose or uncentered joysticks, fails to recenter properly, or exhibits stick drift, it may cause unintended drone movement during flight. While the drone is grounded, follow the controller manufacturer's instructions to calibrate the joysticks if supported. To verify proper operation, hover the drone over the Dock or another safe area without applying input. If the drone drifts consistently without input, land immediately and recalibrate or replace the controller before resuming flight.

Risk of mid-air collision and serious injury.

Overriding an automatically paused flight due to drone-to-drone deconfliction carries a significant risk of mid-air collision. Skydio strongly recommends that pilots avoid overriding deconfliction events when performing operations over people. For more information, see *Inflight > Airspace Deconfliction > Skydio Drone-to-drone Deconfliction (Beta)*.

Risk of serious injury, property damage, or loss of aircraft.

The Remote Pilot may choose to cancel an automated landing or delay the return when the Return Battery capacity has been reached at their own risk. The Remote Pilot is solely responsible for the potential loss of the drone and/or any serious bodily harm and property damage that may result. For more information, see *Inflight > Low Battery Behavior*.

CAUTION

Risk of propeller failure and loss of flight control.

Exceeding the recommended propeller flight hours increases the likelihood of component failure. Users must proactively track usage, inspect propellers regularly, and replace them as recommended to maintain safe and reliable flight operations.

Risk of burns from hot surfaces.

The chassis of Skydio X10, the Dock for X10, and External Radio may become hot to the touch when powered on for long periods of time, when in high-temperature environments, or when exposed to direct sunlight. The components of the flight system should be handled with extreme caution and care under these conditions.

Risk of eye discomfort or injury from bright light exposure.

When the flashlight on the VT-300L is in use, pilots should avoid staring directly into the light at any range or for any extended period of time.

Risk of reduced flight safety or equipment failure.

The Remote Pilot and their organization/agency are responsible for proactively tracking, examining, and replacing Skydio X10 drone propellers and batteries, as well as monitoring system faults to maintain optimal flight safety and reliability based on flight system maintenance guidelines.

Risk of overheating or equipment damage.

To ensure proper cooling and operation, air outlets or air intakes (aka vents) on the Skydio X10 or Skydio Dock for X10 must remain unobstructed.

Risk of flight instability or equipment damage.

The drone navigation cameras, propellers, attachments, and Sensor Package must remain unobstructed and unoccluded.

Risk of permanent sensor damage.

The thermal camera (Sensor Package) should not be pointed directly at the sun, or other high intensity energy sources for extended periods. Prolonged exposure may cause burn-in on the thermal sensor or irreversible damage to the thermal camera.

Risk of equipment malfunction or system incompatibility.

No Attachments other than NightSense, Parachute, Speaker, or Spotlight should be connected to the Skydio X10 when flying the drone using the Dock for X10 Flight System. Skydio Interface Control Document (ICD) is not compatible with the Dock

CAUTION

for X10 Flight System. See *Flight System Overview > Drone Attachments* for supported attachment configurations.

Risk of equipment malfunction or damage.

Third party equipment/accessories are not supported with the Dock for X10 Flight System. To help ensure safe and reliable operation, use only Skydio-approved components.

Risk of equipment damage.

The rear USB-C port should always be used when charging the drone outside of the Dock. Connecting the power adapter to the accessory ports may damage the drone.

Risk of equipment damage.

When manually opening or closing the roof of the Dock, do not grab the roof by the anemometer or rain sensor. Doing so may cause damage to the Dock.

NOTE

Follow the Operator Manual, Skydio Dock for X10 Maintenance Manual, Skydio Safety Guidelines, any warnings or notices printed on the Dock Flight System, and any notices or updates provided via Skydio Cloud. Failure to follow any instructions or recommendations in Skydio documentation may void the Skydio Limited Warranty or other terms and conditions.

The Skydio Parachute for X10 (“Parachute”) is not a replacement for safe flying practices. See additional Parachute Safety Guidelines below if flying with the Parachute attachment.

Aviation Safety and Regulatory Compliance

DANGER

Risk of mid-air collision causing serious injury or death.

Remote Pilots must never fly near or interfere with crewed aircraft operations.

WARNING

Risk of serious injury from loss of flight control.

When running Scheduled Missions, the RPIC must directly monitor all phases of the flight via Remote Flight Deck. Loss of control of the sUAS may lead to serious bodily harm of individuals in the operating environment.

Risk of serious injury or loss of aircraft control.

The Remote Pilot must not leave the Remote Piloting Station unattended during any active flights. Pilots must not exit Remote Flight Deck while actively flying the drone. The RPIC must directly monitor all phases of the flight via Remote Flight Deck. Never unplug or disconnect the Dock, External Radio, or any other system components during flight.

Risk of serious injury or loss of flight control.

Remote Pilots must not use generative AI tools (e.g., ChatGPT) to launch or operate Skydio drones. Skydio drones must be launched and operated under direct human supervision and control at all times. Using third-party AI tools to initiate launch sequences or conduct remote flights—whether via simulator or in live operations—is strictly prohibited. These workflows may violate FAA regulations (including Part 107.12 and 107.19), pose a significant safety risk, as well as void warranty coverage or other terms and conditions in the event of damage or loss. A qualified Remote Pilot should always be actively managing flight operations.

Risk of serious injury or property damage.

Remote Pilots must not operate directly over people or moving vehicles without complying with all applicable regulations and obtaining the required Certificates of Waiver or Authorization (COA).

Risk of mid-air collision causing serious injury or death.

In rare cases, non-cooperative crewed aircraft may not be transmitting ADS-B. These aircraft will not show up on the map. To avoid potential airspace conflicts, Remote Pilots should maintain situational awareness at all times.

WARNING

Risk of serious injury during flight over people.

The Remote Pilot must fly with the Parachute attached and armed when operating over people.

NOTE

The RPIC is solely responsible for the safe operation of the flight system during all phases of operation.

A beyond visual line of sight (BVLOS) approval is required to remotely operate docked drones. If the organization does not hold an approval by the time of deployment, then all operations must be conducted within the visual line of sight of a certificated pilot located onsite. In the United States the FAA issues waivers or certificates of authorization (COAs). In Canada the Transport Canada issues a Special Flight Operations Certificate (RPAS). In Japan the Japan Civil Aviation Bureau issues Flight Approvals.

All users of the flight system must follow their agency's policy, best practices, requirements, etc. for safe flight. Remote Pilots must follow Code of Federal Regulations - Part 107—Small Unmanned aircraft systems for guidance on Remote Pilot best practices for safe flight.

<https://www.ecfr.gov/current/title-14/chapter-I/subchapter-F/part-107>

All users of the flight system must always follow FAA and country-specific civil aviation authority regulations, as well as local, state, and federal laws and regulations when operating Skydio X10.

Remote Pilots and Administrators must ensure drones are registered with the FAA using <https://faadronezone-access.faa.gov/#/>

Remote Pilots must not fly in environments where the use of drones is restricted or not authorized. Users should consult resources such as https://www.faa.gov/uas/getting_started or apps like AutoPilot for additional information.

The Public Safety Lights option is only for strict use by authorized users comprising public safety first responders and emergency personnel performing a public safety mission. When operating in airspace viewable to the public, unauthorized users must refrain from using these police or emergency lights. Failure to comply may

NOTE

result in violations of local laws, regulations and ordinations and could subject the non-compliant user to civil or criminal penalties, fines, or other legal consequences.

Preflight Safety Considerations

WARNING

Risk of collision or loss of control.

The drone will stop approximately 3–6 ft (1–2 m) from the edge of a Geofence. Therefore, sites created inside Skydio Cloud should not be created with any Geofences that have any narrow passages (less than 15 ft (5 m) of space between walls, floors, and ceilings). Doing so may not leave enough room for maneuver through all areas of the passageway, potentially causing the drone to become “stuck” or unmaneuverable. Remote Pilots should not attempt to pass through any narrow Geofence passages that have less than 15 feet (5 m) of space between walls, floors, and ceilings. For more information, see *Inflight > Keep in and Keep out Geofences > Minimum Width and Geofence Margins*.

Risk of collision or loss of maneuverability.

Sites created inside Skydio Cloud should not have any ‘floating’ Geofences or unnecessary complexity added to the Geofence Zones. Flying through complex Geofence environments limits the Remote Pilot’s ability to safely maneuver in the event of air traffic, obstacles, or other flight hazards. For more information, see *Inflight > Keep in and Keep out Geofences*.

Risk of loss of control and serious injury.

Remote Pilots should never fly with damaged propellers. If cracks, nicks, bends, or other visible damage are found on the propellers, do not proceed with flight. Skydio recommends replacing all four propellers at once prior to the next flight.

Risk of unstable flight or loss of control.

To verify that all four arms are fully deployed before each launch, Remote Pilots should use the inspection camera on the Dock for X10. Incomplete deployment may result in unstable flight or loss of control.

Risk of unintended flight or serious injury.

Opening Live Mission Planner initiates a live flight. Ensure all preflight procedures are completed and all safety guidelines are followed before and during operation.

CAUTION

Risk of collision or equipment damage during landing.

To allow for safe descent and touchdown, each Safe Landing Point must be flat, unobstructed, open to the sky, and at least 16 ft (5 m) across. When setting up a Dock for X10, at least one Safe Landing Point is required near the Dock. Safe

CAUTION

Landing Points should be located in areas where the drone can safely land and be easily recovered. Ensure Safe Landing Points are clearly visible at the physical Site so they remain free of obstruction. If the selected area becomes unusable for safe landings, move Safe Landing Points. For more information, see *Initialization > Safe Landing Points*.

Risk of reduced flight safety or equipment malfunction.

Remote Pilots must monitor the Device Pages, Fleet health statuses, and system notifications for any errors or degraded operational states. Delay the mission if any condition may compromise flight safety, and resume only after the issue has been resolved.

NOTE

Skydio X10 relies on clean cameras for safe and accurate navigation. If a dirty camera is detected during flight, the system will display a warning in Remote Flight Deck. If a dirty camera is detected, clean the navigation cameras with a microfiber cloth prior to the next flight.

Remote Pilots should use the inspection camera on the Dock to check for visible damage or debris on the drone, including the propellers, arms, any attachments, and chassis. Any attachments must be fully seated and plugged into the appropriate attachment bay. The battery must be fully seated in the drone. For more information, visit *Preflight > Check the Condition of the Drone Using the Dock Inspection Camera*.

Inflight Safety Considerations

WARNING

Risk of collision or loss of control.

Skydio does not recommend creating floating Geofences or adding unnecessary complexity to Geofence Zones. Flying through complex Geofence environments limits the drone's ability to safely maneuver in the event the Remote Pilot encounters air traffic, obstacles, or other flight hazards. Extreme caution must be exercised when flying under or over a Keep-out Geofence Area or when flying in complex Geofence environments.

Risk of collision or serious injury.

When Low Light Mode is enabled, obstacle avoidance is disabled unless NightSense is active. When in Low Light Mode without NightSense (GPS required), top speed is 45mph (20 m/s) (when flying with no attachments in ideal conditions such as no wind, no precipitation, higher air density, etc.)

When in Low Light Mode with NightSense enabled, top speed is 18mph (8 m/s) in ideal conditions. The Remote Pilot should always be aware of the drone's top speed, surroundings, controller sensitivity, and adjust the flight settings accordingly to suit the mission and environment. Flying without obstacle avoidance increases the risk of collision.

Risk of serious injury or aircraft loss.

Operating the drone with a critical low battery may cause an in-flight power loss, leading to uncontrolled descent and serious bodily injury.

Risk of collision or equipment damage.

When obstacle avoidance is disabled, the drone will descend and land without detecting or identifying a flat landing surface.

CAUTION

Risk of collision or serious injury.

When Low Light Mode is enabled, obstacle avoidance is disabled unless NightSense is active. When in Low Light Mode without NightSense (GPS required), top speed is 45mph (20 m/s) (when flying with no attachments in ideal conditions such as no wind, no precipitation, higher air density, etc.)

CAUTION

When in Low Light Mode with NightSense enabled, top speed is 18mph (8 m/s) in ideal conditions. The Remote Pilot should always be aware of the drone's top speed, surroundings, controller sensitivity, and adjust the flight settings accordingly to suit the mission and environment. Flying without obstacle avoidance increases the risk of collision.

Risk of uncontrolled landing or aircraft loss.

Before flight, ensure Lost Connection Return Behaviors are properly set. This critical step allows the drone to return safely and land in an accessible location if the connection is lost.

Safety Guidelines: Attachments

NightSense

WARNING

Risk of serious injury or system damage.

When NightSense is automatically disabled during Pathfinder transit (e.g., when the toggle **Auto-Off When Using Pathfinder** is enabled), obstacle avoidance is also disabled which may pose a risk of serious bodily injury or damage. Pathfinder relies on map data and does not detect obstacles that are not represented in that data, including temporary or newly introduced structures.

Before enabling this setting, Organization Admins must ensure that all known temporary obstacles within the operating area are routinely identified and properly geofenced. Flying with NightSense or obstacle avoidance disabled significantly increases the risk of collision. The Remote Pilot in Command remains solely responsible for the safe operation of the aircraft at all times.

CAUTION

Risk of burns from hot surfaces.

After prolonged use, NightSense attachments may become hot to the touch. Before handling, wait for the attachments to cool.

Risk of eye injury from bright light exposure.

Users should avoid staring directly into the NightSense modules at close range. Visible and Infrared attachments, may cause eye damage if viewed closer than an arm's reach for 30 seconds or more.

Risk of burns or eye injury.

Due to potential burn risk and eye damage, Skydio does not recommend Hand Landing the drone while using NightSense.

NOTE

When flying with NightSense active, Skydio X10 will be limited to a max speed of 18 mph (8 m/s) in ideal conditions.

NightSense cannot be used to satisfy civil aviation anti-collision or position lighting requirements. Always use the appropriate RGB and/or strobe lighting options on the drone when required.

Parachute

DANGER

Risk of serious injury or death from low-altitude parachute deployment.

When flying over people with the Parachute attached, the Remote Pilot must not operate the sUAS below an altitude of 100 feet (30.5 m) above the ground except for takeoff and landing. Operating below this altitude may prevent full parachute deployment and fail to slow descent enough to avoid serious injury, death, or property damage.

WARNING

Risk of serious injury or equipment failure.

Do not modify the Parachute. Alterations may impair performance, cause injury or property damage, and void the warranty or other applicable terms and conditions.

Risk of serious injury or property damage.

When armed, do not handle the Parachute or point it toward people or property.

Risk of serious injury from unintentional parachute deployment.

Do not hand launch or hand land the Skydio X10 when the Parachute is enabled.

Risk of serious injury or property damage during emergency descent.

The Parachute attachment is designed to deploy automatically based on detection of abnormal flight conditions. Remote Pilots may also deploy the Parachute manually, if they determine it is safe and desirable to do so. In the event of an emergency landing due to system error, the Parachute may not be able to be deployed. For more information, see *Inflight > Emergency Landing*.

CAUTION

Risk of injury from unintended deployment.

A clear area of at least 6.5 ft (2 m) should be maintained when the Parachute is powered on and armed. A green flashing LED on the Parachute indicates that it is armed. A solid green LED signifies that the Parachute is in “Standby” mode, meaning it is enabled but not yet armed. A solid red LED indicates that the Parachute is disarmed. No LED illumination signifies either that the Parachute is not powered or that it has already been deployed.

Risk of improper deployment or equipment damage.

If the Parachute is dropped and the lid becomes detached, it must be sent back to Skydio for repacking.

Risk of equipment damage or malfunction.

Users should not attempt to charge the Parachute or connect it to anything other than the appropriate attachment bay on Skydio X10.

NOTE

When Parachute is in use, note that only one additional attachment may be initialized on the X10 drone. Adjustments in operational planning may be necessary to accommodate reduced attachment availability. See *Flight System Overview > Drone Attachments* for supported attachment configurations.

The Skydio Parachute for X10 (“Parachute”) is not a replacement for safe flying practices.

Spotlight

WARNING

Risk of fire or equipment damage.

Do not leave the Spotlight on while it is inside the Dock.

 **CAUTION**

Risk of eye injury from bright light exposure.

To avoid potential eye injury, users should not stare directly into the Spotlight at any distance or for any extended period of time.

Risk of burns from hot surfaces.

The Spotlight may become extremely hot during or immediately after use. During this time, users should avoid touching the Spotlight and avoid allowing it to come into contact with other materials.

Batteries

DANGER

Risk of fire, explosion, serious injury, or death.

Failure to follow battery safety warnings and handling guidelines can cause fire, explosion, or severe burns, resulting in serious injury or death, and may damage the drone, Dock, or surrounding property.

Risk of fire, explosion, serious injury, or death.

Incorrect battery replacement can cause fire or explosion, resulting in serious injury, death, or property damage.

WARNING

Risk of fire, explosion, or serious injury.

Batteries that are cracked, swollen, dented, gouged, or otherwise visibly damaged should not be used. Damaged batteries can overheat, rupture, or ignite.

Risk of fire, explosion, or serious injury.

Do not dismantle, open, or shred batteries.

Risk of fire, explosion, or serious injury.

Do not expose batteries or cells to heat or fire. Avoid storing batteries in direct sunlight.

Risk of fire, explosion, or serious injury.

Never short-circuit batteries. Loose or improperly stored batteries may contact metal objects or each other, causing overheating or fire.

Risk of chemical burns or serious injury.

Avoid skin or eye contact with leaking battery fluid. If contact occurs, thoroughly rinse the affected areas with copious amounts of water, and seek immediate medical attention.

Risk of fire or equipment damage.

Only the charger specifically provided for use with the equipment should be used. Always use the correct charger and refer to the manufacturer's instructions or equipment manual for proper charging procedures.

Risk of fire or equipment damage.

Use only batteries designed specifically for use with Skydio equipment. Do not

WARNING

install or operate the system with incompatible cells or batteries.

CAUTION

Risk of equipment damage or poor electrical connection.

Skydio X10 uses magnets to retain the battery, which may attract metallic debris. Inspect the battery bay and contacts regularly to ensure they are clean and undamaged.

Risk of battery damage or malfunction.

Do not subject cells or batteries to mechanical shock.

Risk of injury or choking hazard.

Keep all cells and batteries out of the reach of children.

Risk of corrosion or equipment damage.

Keep all cells and batteries clean and dry.

Risk of overheating or battery damage.

When not in use, do not leave batteries on prolonged charge.

NOTE

The Dock for X10 Flight System requires Dock-compatible batteries in order for the drone to charge from the Dock.

Batteries should be properly disposed of according to local laws and government agency's instructions.

Environment

WARNING

Risk of serious injury or aircraft loss.

Flight in icing conditions is not supported and may result in the loss of the drone.

Risk of loss of control or aircraft damage.

Failure to acquire strong GPS prior to flight over water may result in erratic flight and/or emergency landing and total loss of the drone.

Risk of serious injury or aircraft loss.

Skydio does not recommend flying the X10 in gusts at or above 28 mph (45 km/h) or in temperatures less than -4°F (-20°C) or more than 113°F (45°C). This can result in serious injury and/or damage including total loss of the drone.

Risk of damage or serious injury in high winds

To avoid potential damage to the drone, Dock for X10, or other parts of the flight system, the Dock should not be opened in winds greater than 40 mph.

CAUTION

Risk of equipment damage or flight instability.

Skydio X10 is IP55 rated, providing protection from limited dust ingress and light to moderate precipitation conditions. It is recommended to not fly in heavy dust conditions or heavy precipitation.

Risk of equipment damage from dust or moisture.

Skydio X10 Dock is IPX6 for water ingress when it is closed and IPX5 for water ingress when it is open. We do not recommend opening the Dock in heavy dust conditions or heavy precipitation.

Risk of flight instability or collision.

The Remote Pilot should ensure the flight environment has good initial visibility and will have good visibility throughout the duration of the flight.

Risk of flight instability or loss of control.

Remote Pilots should fly cautiously over bodies of water as low relative-altitude flight may degrade or impair autonomous flight performance. Before flying over bodies of water, pilots should ensure the drone has a strong GPS signal. Fly at least 10 ft (3 m) above the surface of the water.

 **CAUTION**

Risk of collision or loss of situational awareness.

Skydio X10 requires good visibility to retain its obstacle avoidance capabilities. Obstacle avoidance is off during Low Light mode (without NightSense enabled) and can also be impaired when in low light and poor visibility. Flight under these conditions should be conducted with extreme caution and care.

Risk of reduced battery performance or equipment damage.

Leaving the Skydio Dock for X10 open for over two minutes consecutively in very cold or very hot temperatures is not recommended and may result in reduced battery performance and could also lead to icing the Dock in very cold temperatures.

Flying Safely

WARNING

Risk of collision or serious injury.

Skydio X10 should never be launched or landed near moving equipment. Skydio does not avoid moving vehicles. Fly with extreme caution and care around moving obstacles including but not limited to other aerial vehicles, cars, and/or animals.

Risk of serious injury or loss of aircraft control.

To reduce the risk of electromagnetic interference (EM*), Remote Pilots must maintain a distance of at least 10 ft (3.0 m) between the X10 drone and emitters (including cell towers). EMI may lead to camera failures, potentially impacting situational awareness of the remote pilot during operation. Disruptions to both controlled and autonomous flight may lead to a total loss of the vehicle and pose a risk of serious bodily injury.

Risk of serious injury or equipment damage.

Users should not attempt to hand catch Skydio X10 before obstacle avoidance is disabled automatically during landing. Attempting to hand catch Skydio X10 while obstacle avoidance is still active may result in serious injury and/or damage.

CAUTION

Risk of collision or equipment damage.

Skydio X10 can not see certain visually challenging obstacles. Remote Pilots should not fly around thin branches, telephone or power lines, ropes, netting, wires, chain link fencing, or other objects less than 0.5 inch (1.3 centimeters) in diameter. This type of crash is not covered under the Skydio Limited Warranty or other terms and conditions.

Risk of collision or flight instability.

Skydio obstacle avoidance may be degraded around transparent or reflective surfaces, windows, mirrors, or still water greater than 23 in (58 cm) wide. Remote Pilots should fly with caution and reduce speed when operating near these obstacles.

Risk of flight instability or loss of control.

Remote Pilots must exercise extreme caution and care when the sun is low on the horizon as it can temporarily blind the Skydio X10 navigation cameras depending on the angle of flight. The drone may exhibit irregular flight behavior when flying directly toward the sun.

CAUTION

Risk of loss of aircraft or hard landing.

Flying at high altitudes may significantly increase the time required to return and safely land the Skydio X10. Though Remote Flight Deck will show battery-remaining indicators in the telemetry and will initiate automatic low-battery returns, it is ultimately the pilot's responsibility for managing altitude, range, and battery level at all times.

Risk of collision, injury, or equipment damage.

If landing in place, Remote Pilots should fly to a clear area where the ground is open and flat. Areas with people, animals, and moving objects should be avoided as well as areas with lots of fine pebbles, sand, rocks, or similar materials.

Risk of minor injury or equipment damage.

Users should not attempt to hand catch Skydio X10 while it is landing in the Dock.

Risk of collision or equipment damage during landing.

If Landing in Place (outside the Dock), always monitor Skydio X10 during landing. Be prepared to use the "nudge" feature or cancel the landing if Skydio X10 is landing in an undesirable location. Use extreme caution and care when landing on elevated platforms, such as the roof of a car or truck, as the Skydio X10 may move laterally to avoid the platform before descending to the 10 ft (3 m) threshold.

NOTE

Remote pilots should adhere to all warnings and alerts provided in Remote Flight Deck and Skydio Cloud.

Skydio Autonomy does not replace responsible piloting of the drone. The RPIC is responsible for all flight operations. Always follow all Safety Guidelines.

Remote Pilots should not intentionally try to crash Skydio X10.

The Remote Pilot should ensure the flight environment has good initial visibility and will have good visibility throughout the duration of the flight.

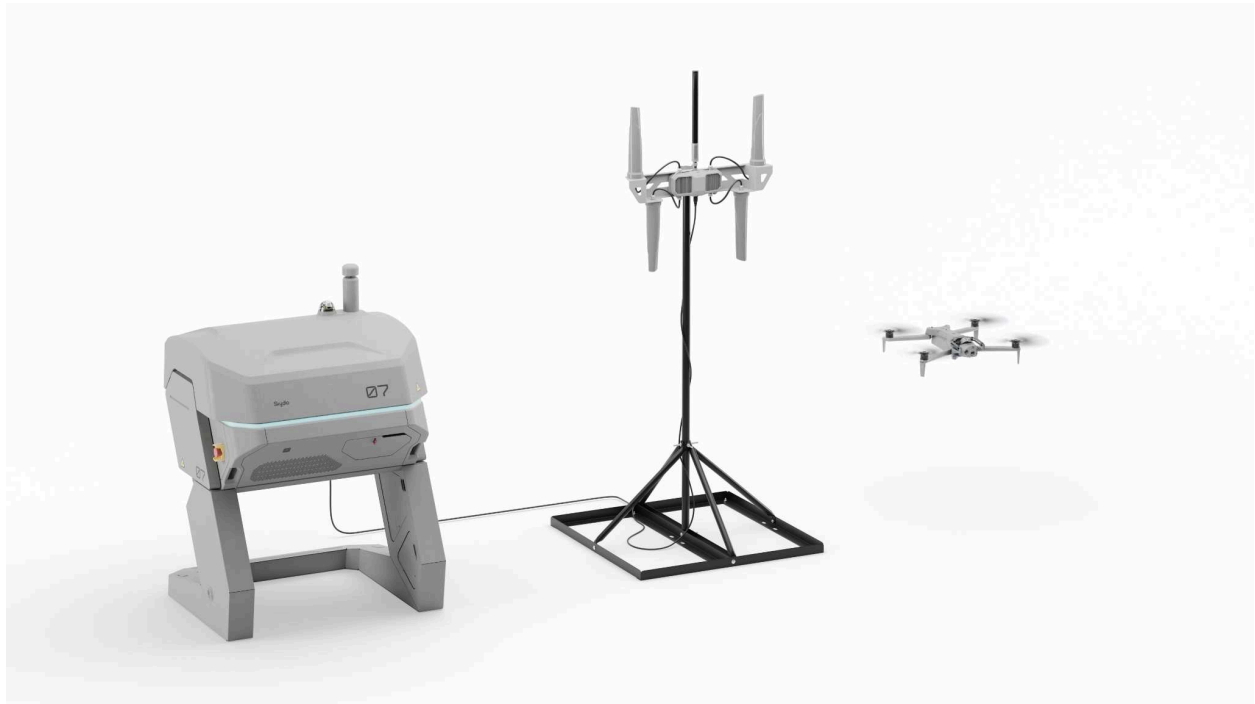
Dock for X10 Flight System Overview

The Flight System Overview details all components of the Dock for X10 Flight System. Each component is subject to continual updates over the lifespan of the flight system. Maintenance intervals and workflows associated with Flight System Updates are described in the Dock for X10 Flight System Maintenance Manual.

This section includes information about the following system components:

1. Skydio X10 Drone
2. Skydio Dock for X10
3. Skydio External Radio
4. Skydio Remote Piloting Station
5. Skydio Cloud
6. Remote Flight Deck
7. Technical Specifications

Product Description



The **Skydio Dock for X10 Flight System** consists of all hardware and software required to fully operate the Skydio X10 drone from a remote operating location.

Primary hardware components of the Dock for X10 Flight System include the **Skydio X10 Drone (including Sensor Packages and Attachments)**, **Dock for X10** and the **Skydio Connect External Radio**.

Primary software components of the Flight System are; organizational access to **Skydio Cloud**, which includes **Remote Flight Deck** and features that facilitate flight system set-up and initialization, Mission Planning, preflight inspections, remote operation and media management for Remote Pilots in Command (RPICs).

Depending on operational objectives and installation site considerations, additional equipment or software licenses may be required.

Dock for X10 is a remote base station that enables fully autonomous drone operations without requiring a human pilot or observer onsite. It houses, charges, and wirelessly communicates with Skydio X10 and provides a safe launching and landing platform for the drone. The Dock is equipped with sensors, a thermoelectric Cooler (TEC), and a compute module to monitor flight system health, manage the

internal dock environmental, and communicate with Skydio Cloud. It is installed in a fixed location with stable network and power connections.

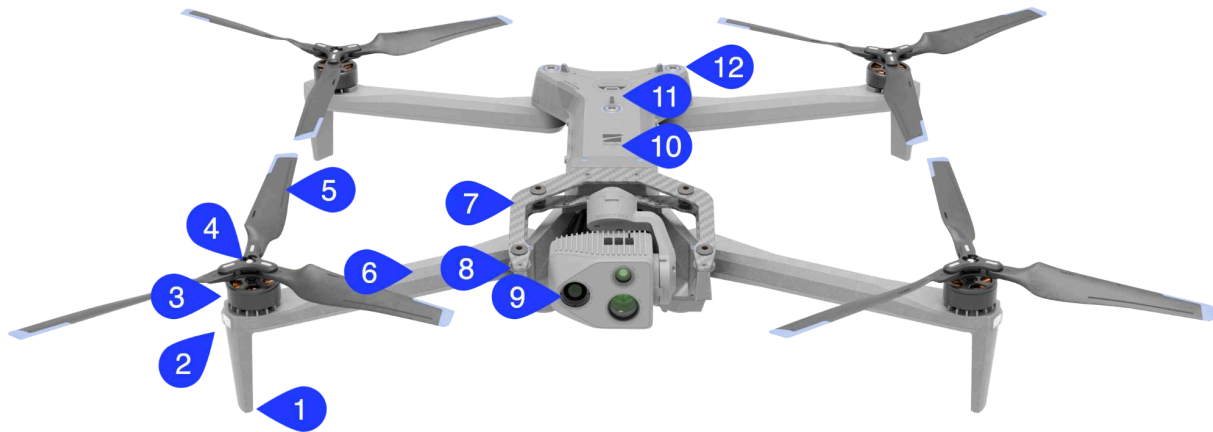
The Skydio Connect External Radio allows Remote Pilots to leverage the point to point connection without needing to be on site. The External Radio is a standalone backhaul that extends Skydio Link connectivity between Skydio X10 and the broader network infrastructure. It connects via Ethernet to a Dock (or wired network) as a means to maximize the point-to-point operational range.

Skydio X10 is the drone that launches from and lands in the Dock for X10 without onsite intervention. It is the aircraft controlled by RPICs during remote operations via Remote Flight Deck. Skydio X10 is equipped with a variety of autonomous capabilities and navigates using a combination of Visual Navigation (VIO) and GPS to maintain accurate positioning and navigate safely through complex environments. It supports a range of sensor packages and attachments.

Skydio X10 Drone

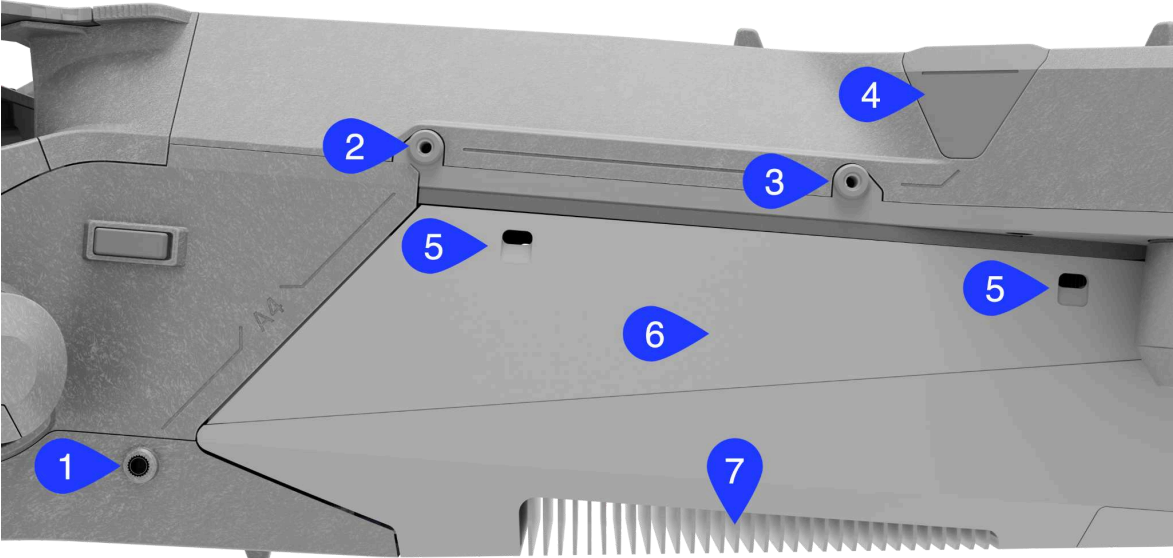
Overview

Top of Drone



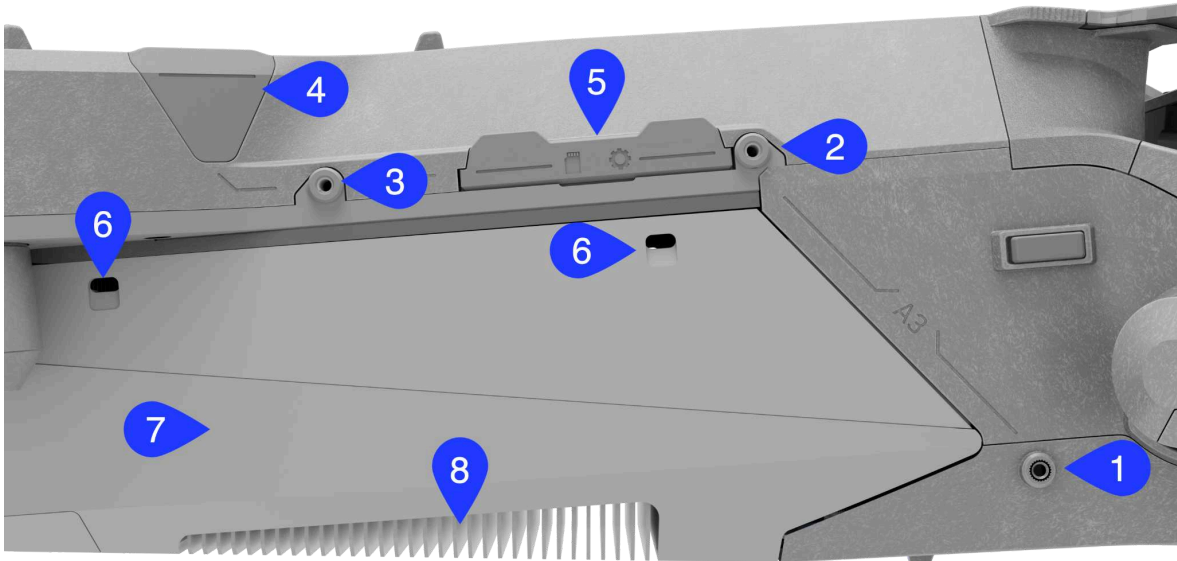
| | |
|-----|----------------------------------|
| 1. | Landing Feet (x4) |
| 2. | Drone Lights (e.g., RGB, Strobe) |
| 3. | Motor |
| 4. | Propeller Hub (x4) |
| 5. | Propeller Blade (x12) |
| 6. | Arm (4) |
| 7. | Sensor Package Bracket |
| 8. | Sensor Package Isolator |
| 9. | Sensor Package |
| 10. | Drone Chassis |
| 11. | Top Attachment Bay (A2) |
| 12. | Navigation Camera (6 total) |

Side View (Left)



| | |
|----|--------------------------------------|
| 1. | A4 Attachment Mounting Point 1 |
| 2. | A4 Attachment Mounting Point 2 |
| 3. | A4 Attachment Mounting Point 3 |
| 4. | A4 Attachment USB-C Port (and Cover) |
| 5. | Battery Drain Hole (x2) |
| 6. | Battery Body |
| 7. | Battery Heat Sink |

Side View (Right)



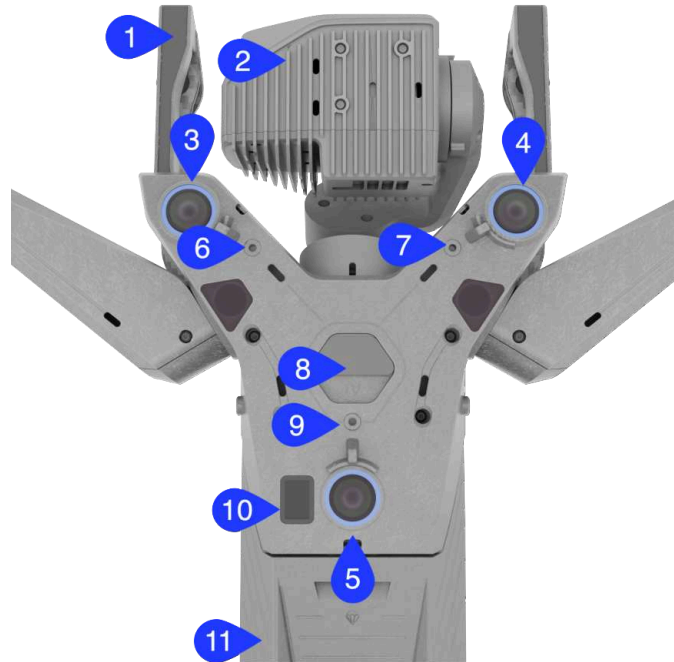
| | |
|----|--------------------------------------|
| 1. | A3 Attachment Mounting Point 1 |
| 2. | A3 Attachment Mounting Point 2 |
| 3. | A3 Attachment Mounting Point 3 |
| 4. | A3 Attachment USB-C Port (and Cover) |
| 5. | Media/Logs SD Ports (and Cover) |
| 6. | Battery Drain Hole (x2) |
| 7. | Battery Body |
| 8. | Battery Heat Sink |

Overhead View (Rear of Drone)



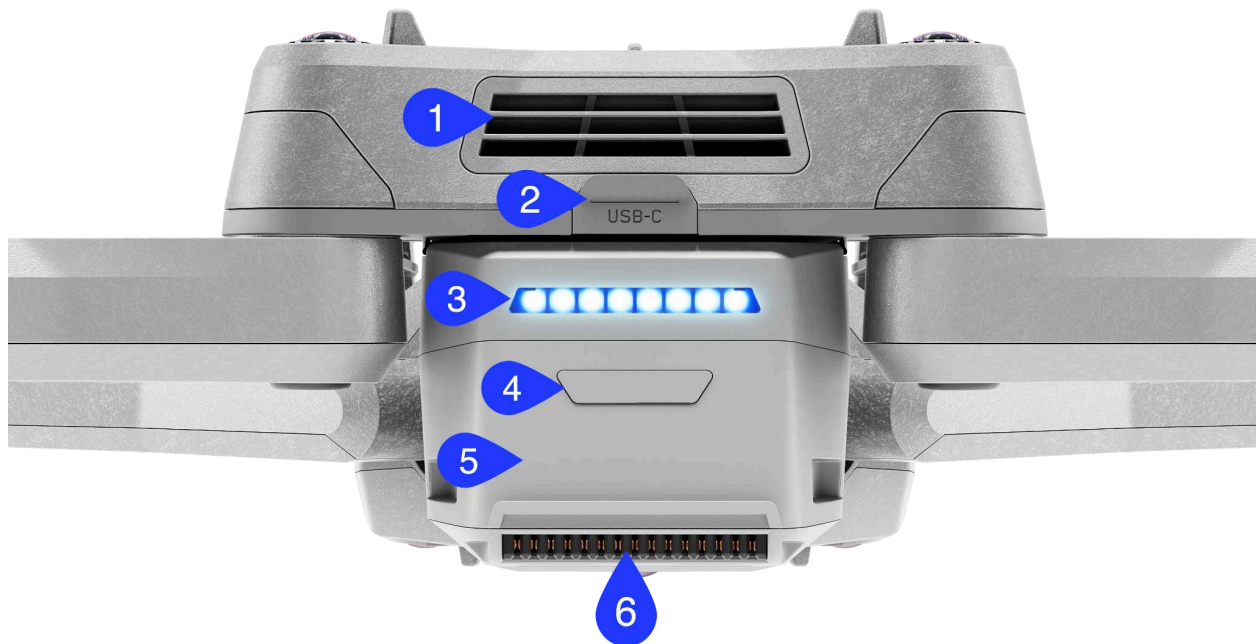
| | |
|-----|--------------------------------------|
| 1. | Arm |
| 2. | Navigation Camera 1 of 6 |
| 3. | Navigation Camera 2 of 6 |
| 4. | Navigation Camera 3 of 6 |
| 5. | A2 Attachment Mounting Point 1 |
| 6. | A2 Attachment Mounting Point 2 |
| 7. | A2 Attachment USB-C Port (and Cover) |
| 8. | A2 Attachment Mounting Point 3 |
| 9. | A3 Attachment USB-C Port (and Cover) |
| 10. | A4 Attachment USB-C Port (and Cover) |

Underhead View (Front of Drone)



| | |
|-----|--------------------------------------|
| 1. | Sensor Package Bracket |
| 2. | Sensor Package |
| 3. | Navigation Camera 4 of 6 |
| 4. | Navigation Camera 5 of 6 |
| 5. | Navigation Camera 6 of 6 |
| 6. | AI Attachment Mounting Point 1 |
| 7. | AI Attachment Mounting Point 2 |
| 8. | AI Attachment USB-C Port (and Cover) |
| 9. | AI Attachment Mounting Point 3 |
| 10. | Time of Flight Sensor |
| 11. | Battery |

Rear of Drone



| | |
|----|-------------------------------|
| 1. | Cooling outlet |
| 2. | USB-C charge port (and Cover) |
| 3. | Battery lights |
| 4. | Power button |
| 5. | Battery |
| 6. | Dock Charging Connectors |

NOTE: Shown here is the Skydio X10 (Gen 2) which comes in the all gray color, however the information still applies to Skydio X10 (Gen 1). Users can visit our support article [here](#) to learn more about the differences between the Gen 1 and Gen 2 systems, which focus primarily on cellular performance improvements.

Drone Attachments

NOTE: Activation of attachments during a Mission is not supported.

Attachments are optional accessories that can be added to enhance the functionality of the drone, such as advanced lighting or communication tools. These add-ons allow Skydio X10 to be customized for unique mission requirements.

Four USB-C ports (three near the rear top and one on the bottom of the drone) are used to connect a variety of attachments.

Supported Configurations for Multiple Attachments

Two attachments

- Parachute + NightSense
- Parachute + Spotlight
- Parachute + Speaker
- Parachute + Fusion+
- Parachute + RTK/PPK
- NightSense + Spotlight
- NightSense + Speaker
- NightSense + Fusion+
- Spotlight + Speaker
- Spotlight + Fusion+
- Speaker + Fusion+

Three attachments

- NightSense + Spotlight + Speaker
- Parachute + NightSense + Spotlight
- Parachute + NightSense + Speaker
- Parachute + NightSense + Fusion+

NOTE: NightSense refers to both top and bottom attachments.

NightSense

Skydio X10 is equipped with six high-resolution navigation cameras with 360° perception. X10 can be purchased with visible light navigation cameras or IR light navigation cameras.

When operating in the dark or in low light conditions, the NightSense attachment illuminates the surrounding area with visible light or IR light, allowing the navigation cameras to detect obstacles and use visual navigation.

The NightSense attachment comes in either visible light or infrared variants. NightSense is supported in the following configurations:

The Skydio X10 drone with **IR navigation cameras** can be used with both IR and Visible Light NightSense attachments. The Skydio X10 drone with **Visible Light navigation cameras** can be used with only the Visible Light NightSense Attachments.

The NightSense attachments insert into both the bottom (A1) and top (A2) attachment ports.





57 g per attachment (x2)

Spotlight

Remote Pilots can illuminate dark environments with the high-powered Spotlight attachment.

This attachment shines a bright visible light over a target area in order to focus on specific points of interest when flying at night or in low-light conditions.



| | |
|---|---|
| <p>Adjust the angle of the spotlight before flight and turn the Spotlight on or off from within Remote Flight Deck while in flight. The Spotlight can be pivoted up to 180° on either side of the drone for precision directional lighting.</p> <p>One Spotlight generates 5 lux of light for ample visibility.</p> <p>The Spotlight is IP55 rated and connects to either side Attachment Bay (A3 or A4).</p> | <p>115 g</p> |
| <p>Speaker</p> <p>The Speaker attachment allows Remote pilots to broadcast pre-recorded messages over the drone's integrated speaker, facilitating clear one-way communication from the operator to the environment.</p> <p>The Speaker is IP55 rated and connects to either side Attachment Bay (A3 or A4).</p> |  <p>100 g</p> |
| <p>Parachute</p> <p>The Skydio Parachute recovery and termination system mitigates risk and downtime for X10 operators who must meet safety requirements. Parachute attachment mitigates risk to ground personnel and allows Part 107 pilots to operate over people, subject to environmental conditions. When deployed, the Parachute is designed to slow the drone's descent in order to protect people, not the drone.</p> <p>Designed to enable compliant operations over people under Part 107. The parachute is equipped with internal</p> |  <p>160 g</p> |

sensors that continuously monitor flight conditions in real-time.

When a failure is detected, the parachute is autonomously deployed.

The Parachute is IP55 rated and connects to the A4 Attachment Bay.

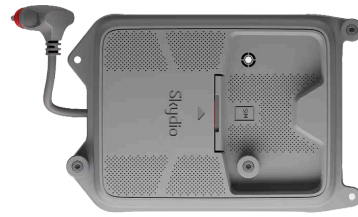
Skydio Connect **Fusion+**

The Skydio Connect Fusion+ attachment is an active cellular radio.

The attachment is designed for the X10 drone (both Gen 1 or Gen 2) to add a second cellular connection. This is useful for adding throughput for higher video quality and navigating through cellular “dead zones” if two cellular carriers are installed.

The attachment enables Skydio Fusion to use up to 3 radios: Connect SL, internal 5G, and the Fusion+ cellular link.

The Connect Fusion+ Attachment is IP55 rated and connects by default to the A3 Attachment Bay (right side of the drone). The attachment may also be configured to attach to the A4 attachment bay.



85 g

Drone Sensor Packages

VT300-L

Includes a 64 MP narrow module, a 50 MP wide module with an LED flashlight, and a Teledyne FLIR Boson+ radiometric module.

Sensors:

- Wide: IMX989 1" 50.3MP CMOS, f/1.95, 93° FOV
- Narrow: 1/1.7" 64MP CMOS, f/1.8 50° FOV
- Thermal: FLIR Boson+ Uncooled VOx Microbolometer, 640x512, 41° FOV



VT300-Z

Includes a 64 MP narrow and 48 MP telephoto visual module for maximum zoom distance and a Teledyne FLIR Boson+ radiometric module.

Sensors:

- Thermal: FLIR Boson+ Uncooled VOx Microbolometer, 640x512, 41° FOV
- Narrow: 1/1.7" 64MP CMOS, f/1.8 50° FOV
- Telephoto: 1/2" 48MP CMOS, f/2.2 13° FOV



V100-L

Includes a 64 MP narrow module and a 50 MP wide module with an LED flashlight.

Sensors:

- Wide: IMX989 1" 50.3 MP CMOS, f/1.95, 93° FOV
- Narrow: 1/1.7" 64 MP CMOS, f/1.8 50° FOV



Drone Connectivity

Skydio Connect SL

Skydio Connect SL provides a proprietary, optimized point-to-point wireless link between Skydio X10 and Dock for X10 and Skydio X10 and External Radio.

The local wireless connection between the drone and the Dock is used for high-throughput communication during key phases such as launching, landing, and postflight file transfers.

When line of sight is available, the External Radio enables Connect SL to maintain reliable connectivity at distances up to 7.5 miles (12 kilometers), allowing the Dock to communicate directly with the drone without relying on cellular infrastructure.

- Operating frequency: 5 GHz (US)
- Range in ideal conditions: 7.5 mi (12 km)

Skydio Connect 5G

Skydio Connect 5G enables cellular connectivity on Skydio X10. This connection allows fully remote operations of Dock-based missions without requiring a local connection or line of sight (as long as there is cellular coverage in the area of flight).

Connect 5G is especially useful when Connect SL is unavailable or where local radio frequency (RF) conditions are unreliable.

Skydio Connect Fusion

Skydio Connect Fusion manages Connect SL and Connect 5G to maintain a reliable video and control link. When both SL and 5G are available, the system monitors link quality and uses a bonded connection to maintain stable connectivity.

Fusion is built into the flight system and does not require manual configuration. It ensures continuity of remote operations even in environments with fluctuating signal strength.

The Skydio Connect Fusion+ Attachment accompanies the Fusion+ service subscription. The Fusion+ hardware consists of a side-mounted cellular attachment for X10 and X10 Gen 2 that adds an additional active cellular signal. It is required to enable Fusion+ multi-radio connectivity.

NOTE: *The Fusion+ Attachment is supported on Skydio X10 Gen 1 and Gen 2 Flight Systems with or without Skydio Connect 5G. Skydio X10D Flight Systems are not supported.*

Drone Power

Dock for X10 Batteries

Dock for X10 houses one drone battery at a time, which is connected to the Skydio X10 drone docked inside.

Skydio X10 batteries are shipped in an idle state and will not power on the drone out of the box. The Skydio Deployment Engineer will exit this state of hibernation during installation.

Battery health and charge levels are continuously monitored, and the system will prevent launches if the available charge is insufficient to support a safe mission.

Replace batteries every 300 battery cycles for optimal performance.

- A battery cycle is the cumulative depletion of at least 80% of the charge. For example, if a battery is flown from 100% to 60%, recharge, then fly the battery from 100% to 60% again, that would count as one cycle (40% depleted + 40% depleted = 80%)
- Battery cycles can be tracked in Skydio Cloud and Skydio Cloud will show an alert if the battery is over the number of recommended cycles.

NOTE: *The Dock for X10 Flight System requires Dock-compatible batteries in order*

for the drone to charge from the Dock. The flight system can be flown with non-Dock batteries as well, however non-Dock batteries cannot be charged in the Dock. If the flight system detects a non-Dock battery being used, then when it is time to land, the drone will return to the Safe Landing Point instead of the Dock.

Charging Dock for X10 Batteries

The Dock automatically manages battery charging as part of postflight operations. When the drone lands, the Dock initiates charging. The flight system monitors battery status and environmental conditions to ensure safe and efficient charging.

Charging begins after successful system health checks and proper mechanical alignment of the Skydio X10 battery and the charging platform. To protect battery health, the Dock monitors internal and ambient temperatures. The Dock will either cool or heat the battery so it is within the optimal window for charging, and once temperature is inside this window, charging will begin. If temperature values fall outside of the defined ranges, charging is either slowed or paused until conditions stabilize.

If charging is delayed or interrupted, a notification will appear in Skydio Cloud. The Device Pages should be used to troubleshoot and review details about the current issue.

NOTE: Dock for X10 Batteries are compatible with a Skydio X10 Dual Charger and can be charged using the Skydio X10 Dual Charger. For more information on using the Dual Charger, [visit this help article](#).

Updating Dock for X10 Batteries

Firmware updates for Dock batteries are managed automatically through the drone's software. Updating the drone ensures the batteries are up to date.

Skydio Autonomy

Skydio Autonomy combines sophisticated AI with advanced sensors to make complex navigational decisions in real-time.

Below are some of the Skydio Autonomy features that will assist Remote Pilots during the flight, allowing them to focus on the task at hand.

NOTE: Skydio Autonomy does not replace responsible piloting of the drone. The RPIC is responsible for all flight operations. Always follow all Safety Guidelines.

Pathfinder (Beta)

Pathfinder is Skydio's onboard routing engine that plans efficient, airspace-aware and terrain-following routes for **Fly-to-Point transits** or when **returning to the Dock**. Pathfinder evaluates terrain elevation, surrounding structures, organizational geofences, and FAA UAS Facility Map grids (UASFM) to determine a safe, predictable route at a constant above-ground altitude (AGL). This allows the drone to take the shortest and fastest route, saving battery and getting on site faster.

Pathfinder calculates routes on the drone, allowing it to complete transit and return-to-Dock behaviors during periods of degraded or lost connectivity.

Flight Behaviors

- **Terrain-Aware Flight** - Uses onboard terrain data to adjust ascents and descents to maintain a constant AGL height
- **Obstacle-Aware Flight** - 3D building data and organization-defined buffers are used to route around major structures
- **FAA Grid and Geofence Awareness** - Pathfinder evaluates UASFM grids and the organization's Keep-Out Zones (geofences) to fly under UASFM grid ceilings where possible
- **Geofence Routing** - Routes around Keep-Out Zones and incorporates geofence boundaries and height limits into route planning
- **Ascent** - Supports vertical or diagonal ascent to the selected travel height

Operational Guidance




- Pathfinder does not incorporate Temporary Flight Restrictions (TFRs); Remote Pilots must perform independent airspace checks

- Organization Admins should configure Pathfinder default settings for Return Behavior, Autonomous Flight, and NightSense within **Settings > Flight Settings**
- Organization Admins should enable or disable Pathfinder FAA grid enforcement within **Settings > Pathfinder Boundaries**
- Pathfinder coverage extends approximately 3 miles in all directions (~36 square miles) around the Dock
- Terrain and building datasets are updated every 6–12 months; construction sites or new tall structures should be added as geofences.
- Pathfinder does not route around thin obstacles (e.g., wires, antennas) and does not detect dynamic or temporary objects.
- When returning to the Dock, if Pathfinder is not available (e.g. because the drone is outside the covered area), the drone will use Up and Over.

Obstacle Avoidance

When flying, Skydio X10 will avoid obstacles following the selected distance setting. Choose between **Standard**, **Close**, **Minimal**, or **Disabled**.

Skydio does not avoid all obstacles, such as moving vehicles or thin wires or branches. Refer to the *Safety Guidelines* when configuring obstacle avoidance margins.

| | |
|-----------------|---|
| Standard | The drone will stay about 26 inches away from obstacles |
| Close |  Increased risk of collision Drone distance from obstacles: approximately 11 inches |
| Minimal |  High risk of collision Drone distance from obstacles: approximately 4 inches |
| Disabled |  No obstacle avoidance The drone will not avoid obstacles. |

NightSense

NightSense illuminates the area around the drone with visible light or IR light, enabling the use of Skydio Autonomy features, such as obstacle avoidance, even at night.

The NightSense attachments broadcast a visible light or infrared light which is used by the navigation cameras for object detection and visual navigation.

NOTE: The IR NightSense modules will strobe at 12.5 FPS in sync with the navigation camera frames, rather than running continuously. This significantly reduces power consumption while maintaining the same obstacle avoidance performance and visual navigation capabilities. Strobing occurs in infrared light and is not visible to the human eye.

When using Pathfinder, Organization Admins can configure NightSense to automatically disable during transit at target altitude, reducing processing load and improving flight speed. This setting can be applied as a Default Flight Setting or adjusted during flight.

The NightSense attachment comes in either visible light or infrared variants. NightSense is supported in the following configurations:

| Drone | NightSense attachments |
|---|--|
| Visible light Visible Light drone models: <ul style="list-style-type: none">• SR47PV• SR47PCV | <ul style="list-style-type: none">• Compatible only with visible light NightSense attachments• Attachments will be labeled as "Visible Light" |
| Infrared (IR) light Infrared Light drone models: <ul style="list-style-type: none">• SR47PI• SR47PCI | <ul style="list-style-type: none">• Compatible with IR NightSense attachments• Compatible with visible light NightSense attachments• Your attachments will be labeled as "Infrared Light" or "Visible Light" |

The Skydio X10 drone with **IR navigation cameras** can be used with **both** IR and Visible Light NightSense attachments.

The Skydio X10 drone with **visible light navigation cameras** can be used with **only** the Visible Light NightSense Attachments.

NightSense attachments come in a pair, one for the top attachment bay and one for the bottom. Mixing a set of NightSense attachments is not supported (one Visible Light attachment on top and one IR attachment on bottom).

Skydio Connect Fusion

Skydio Connect Fusion optimizes inflight connectivity by automatically switching between Connect 5G and Connect SL, ensuring the best connection is used without having to manually choose.

Connect Fusion provides continuous, high-quality video by encoding separate streams for both Connect SL and Connect 5G, then dynamically selects the strongest feed in real-time.

When both options are available, Skydio X10 fuses them together, allowing pilots to maximize throughput or use one network for uplink and another for downlink. All automatically.

Skydio Visual Navigator

Skydio X10 uses its six navigation cameras to process the environment around it and avoid obstacles. The drone will map the world around it, helping it maintain flight accuracy, navigation health, and obstacle avoidance.

Backed by an onboard NVIDIA Jetson Orin GPU, Skydio X10 has the compute capacity to see, understand, and react in real time.

Skydio X10 can navigate complex sites even where there's no GPS available. Skydio algorithms help the drone reason in 3D space to build an understanding of the environment in mid air.

WARNING

Risk of collision or serious injury.

Skydio X10 should never be launched or landed near moving equipment. Skydio does not avoid moving vehicles. Fly with extreme caution and care around moving obstacles including but not limited to other aerial vehicles, cars, and/or animals.

Automated Data Capture

An advanced Spatial AI Engine provides Skydio drones complete awareness of their surroundings. So pilots can repeat flights with centimeter-level consistency, conduct targeted inspections automatically, and build 2D and 3D models.

Map Capture, and other pre-planned Waypoint Missions, allow pilots to set up automated scans of a 2D Planar surface using the Map View. This is often used for 2D orthomosaics and for scanning large flat areas.

The Missions tab is used to create Map Capture Missions. Users can draw the scan boundaries on the map and set scan preferences and settings. Once this Mission is run, Skydio X10 will automatically fly the flight path that was created, return to Dock, and automatically upload the scan data. Map Captures can also be performed at night and in precipitation.

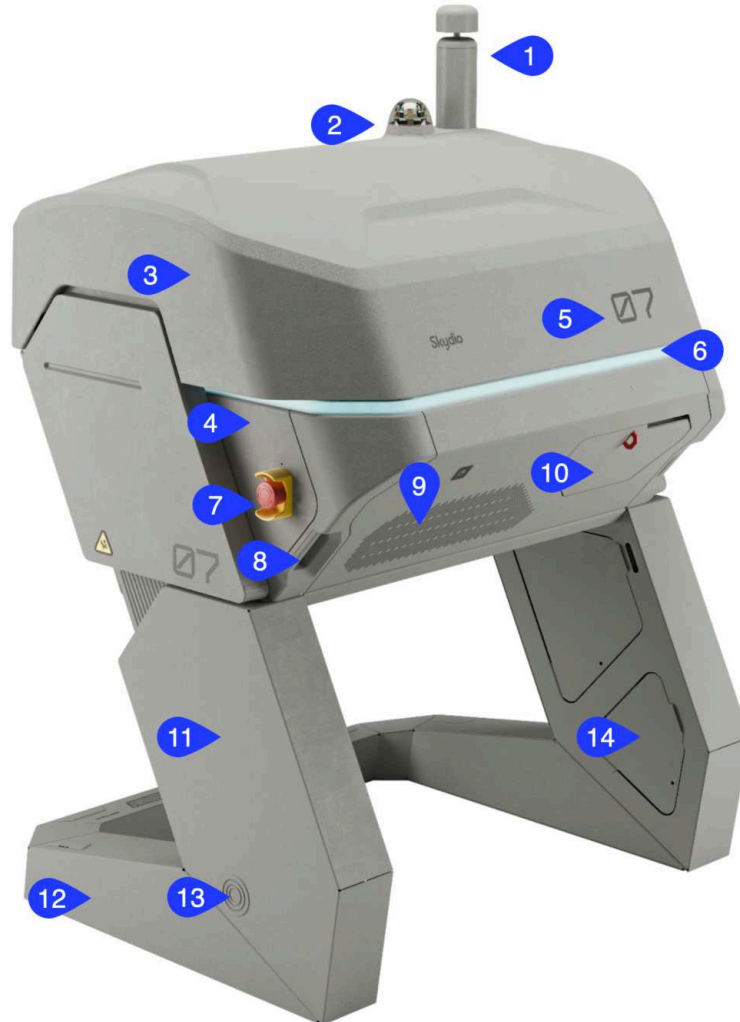
Frame Lock

FrameLock improves foreground stability by minimizing unintended drift while the drone is hovering. This autonomy feature helps keep critical subjects steady in the frame, reducing the need for manual camera adjustments.

Skydio Dock for X10

Overview

Front Quarter View (Dock Closed)



| | |
|----|--------------------------|
| 1. | Wind Sensor (Anemometer) |
| 2. | Rain Sensor |
| 3. | Roof |

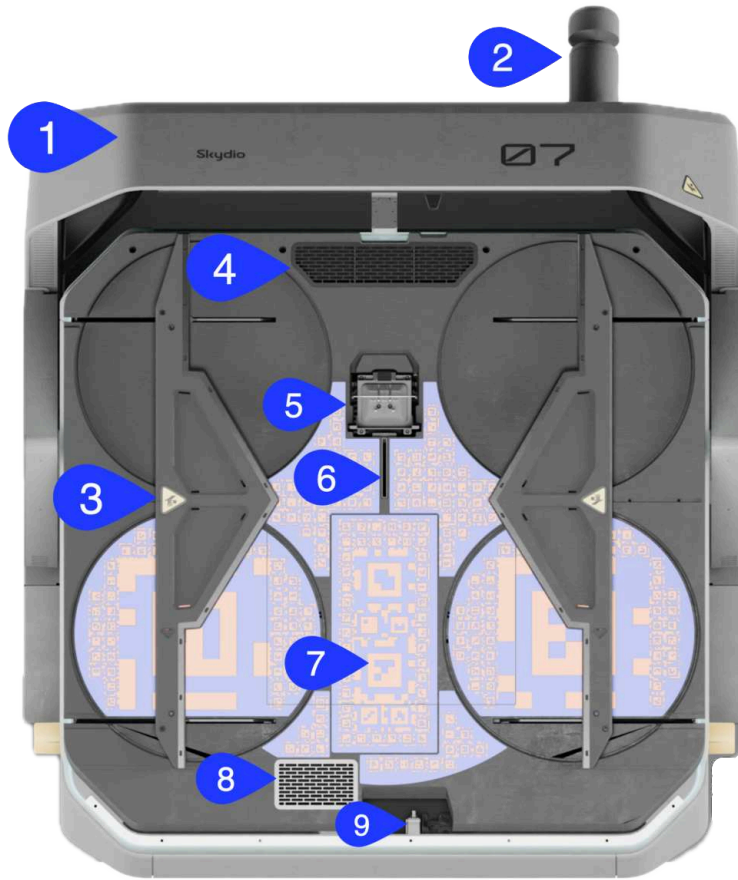
| | |
|-----|------------------------|
| 4. | Core |
| 5. | Dock Number |
| 6. | Dock Lights |
| 7. | Emergency Stop |
| 8. | Dock Handle (x2) |
| 9. | Air Outlet |
| 10. | User Access Panel Door |
| 11. | Leg |
| 12. | Base |
| 13. | Conduit Punchout |
| 14. | Stand Access Panels |

Front Quarter View (Dock Open)



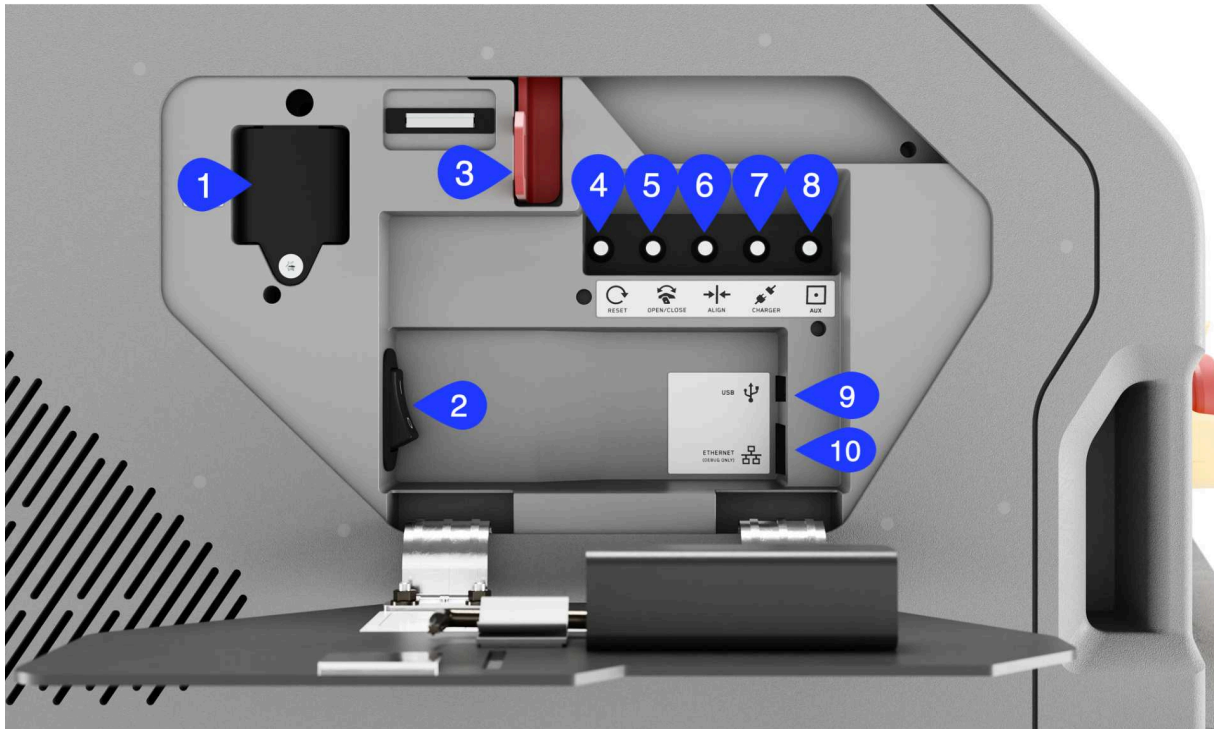
| | |
|----|---|
| 1. | Roof (Open) |
| 2. | Platform |
| 3. | Alignment Fences |
| 4. | April Tags |
| 5. | Emergency Stop (x2) |
| 6. | Dock Lights |
| 7. | Anchor Point for User Supplied Padlock (optional) |
| 8. | User Access Panel Door |

Overhead View (Dock Open)



| | |
|----|--|
| 1. | Roof (Open) |
| 2. | Wind Sensor |
| 3. | Alignment Fence (x2) |
| 4. | Air Outlet |
| 5. | Charger (aka Platform Charger) |
| 6. | Thermoelectric Cooler (TEC) Air Outlet |
| 7. | April Tags |
| 8. | Thermoelectric Cooler (TEC) Air Intake |
| 9. | Roof Latch |

Dock User Access Panel (Open)



| | |
|-----|---|
| 1. | Roof Release Cover |
| 2. | Power Switch |
| 3. | Anchor for User Supplied Padlock (optional) |
| 4. | Reset Button |
| 5. | Open-Close Roof Button |
| 6. | Align Button |
| 7. | Charger Button |
| 8. | Auxiliary Button |
| 9. | USB Port |
| 10. | Ethernet Port |

Dock User Panel Actions

| Switch/Button | Press | Action |
|-------------------------------|---------------------|---|
| Power Switch | Switch Power On/Off | Turns Dock On/Off |
| Reset Button | Single press | Restarts Dock |
| Open/Close Roof Button | Single press | Opens roof and retracts charger, actuates charger |
| Align Button | Single press | Opens/Closes alignment mechanism |
| Charger Button | Single press | Engages/disengages the charger |
| Aux Button | Non-operational | Non-operational |

Dock Lights

| Color | Pattern | Indicates |
|------------------------|------------------------------------|------------------------------|
| Blue | Solid | Normal Operation |
| Blue | Breathing | Connecting to Skydio Cloud |
| Red | Any | Error |
| Red/Yellow | Solid | E-Stop Engaged |
| Yellow/White | Rotating Pattern | DANGER: Dock/Drone is Moving |
| Blue/White | Loading Circle | Dock is Starting Up |
| Blue/Light Blue | Front to Back Pulse | Drone is Flying |
| Blue | Loading Left to Right on each side | Updating Dock |

NOTE: When inspecting Skydio X10 using the Dock Inspection Cameras, the LEDs on the drone battery may appear to flicker or behave erratically. This is a visual effect caused by the way the lights are rendered on camera and does not indicate an issue with the drone or battery.

Dock Emergency Stop

Dock for X10 is equipped with two red Emergency Stop (E-Stop) buttons located on the exterior sides.

The Emergency Stop will cut power to the high energy components like motors and temperature control, but low power components like compute will still be energized

The E-Stop should only be used in situations where it is necessary to halt all Dock activity, such as:

- A visible safety hazard (e.g., smoke, overheating, or physical damage)
- Immediate risk to nearby personnel or property
- Maintenance or power isolation needs

The E-Stop can be activated by firmly pushing one of the red buttons inward. The Dock will shut down immediately.

- If the drone is actively flying when power is shut off, the drone will follow Lost Connection behaviors (*see Inflight > Contingency Behaviors for more information*)
- If the Emergency Stop is activated while the Dock roof is opening or closing, power will be lost and there will be no motor force acting on the Dock. The roof will gently fall into the fully open or fully closed position. The roof of the Dock may be moved while in this state.

To restore power, both E-Stop buttons must first be disengaged by twisting the button. The button is spring loaded, when it is twisted it will pop out on its own and reset.

At this point the power switch will still be on and should be switched off. The Dock can now be powered back on using the standard startup procedure.

CAUTION

Risk of equipment damage.

When manually opening or closing the roof of the Dock, do not grab the roof by the anemometer or rain sensor. Doing so may cause damage to the Dock.



NOTE: If the Emergency Stop is activated while the roof is opening or closing, power will be lost and there will be no motor force acting on the Dock. The roof will gently fall into the fully open or fully closed position. While in this state, the roof can be moved if necessary.

Dock Power

Dock for X10 requires a 110-240 V power source. In cold environments, a 208-240 V supply is required to ensure stable operation of the Dock's internal heating system.

Dock Connectivity: External Radio

The External Radio extends the range of Skydio Connect SL operations. This piece of equipment is optional but recommended. The External Radio is powered via Power over Ethernet (PoE).

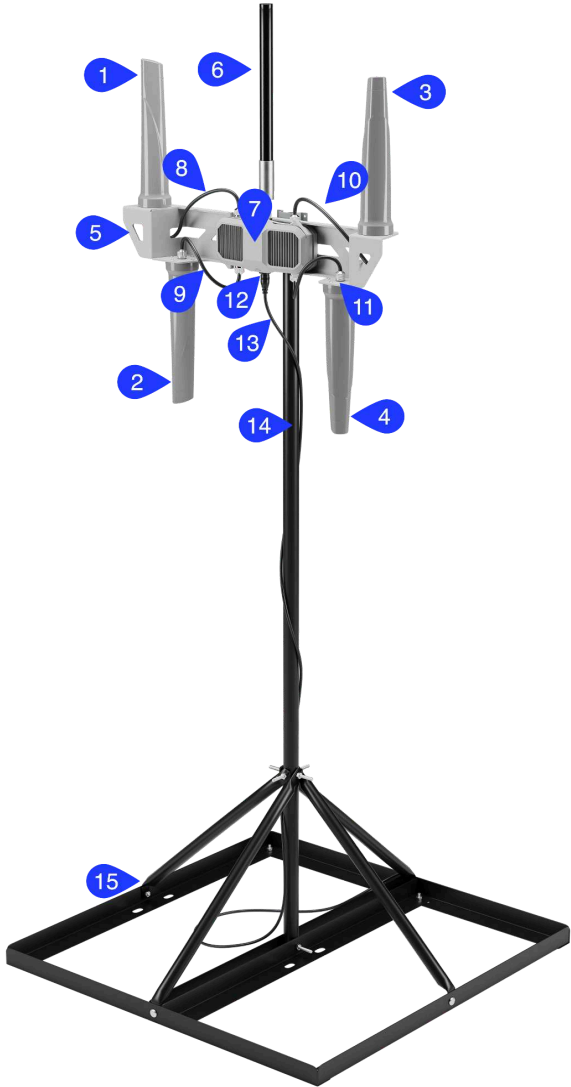
More information can be found in *Flight System Overview > External Radio*.

Use Device Pages to check External Radio health in Skydio Cloud > Devices > External Radio > Select the name of the device.

External Radio

Overview

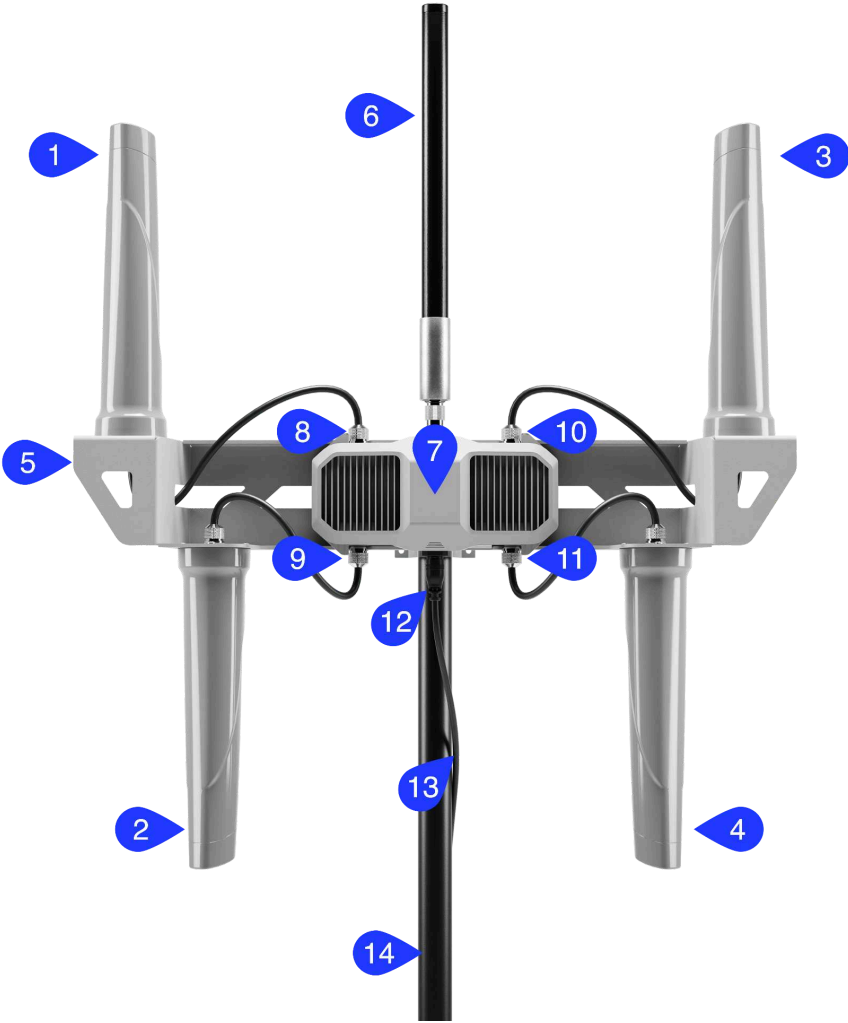
External Radio (with Stand)



| | |
|------|------------------|
| 1-4. | Antenna (x4) |
| 5. | Mounting Bracket |
| 6. | ADS-B Antenna |

| | |
|-----|---|
| 7. | Radio |
| 8. | Antenna to Radio Cabling and Connection 1 |
| 9. | Antenna to Radio Cabling and Connection 2 |
| 10. | Antenna to Radio Cabling and Connection 3 |
| 11. | Antenna to Radio Cabling and Connection 4 |
| 12. | Radio Power Supply |
| 13. | Power Cord |
| 14. | External Radio Post |
| 15. | External Radio Stand |

External Radio (Closeup)



| | |
|------|---|
| 1-4. | Antenna (x4) |
| 5. | Mounting Bracket |
| 6. | ADS-B Antenna |
| 7. | Radio |
| 8. | Antenna to Radio Cabling and Connection 1 |
| 9. | Antenna to Radio Cabling and Connection 2 |

| | |
|-----|---|
| 10. | Antenna to Radio Cabling and Connection 3 |
| 11. | Antenna to Radio Cabling and Connection 4 |
| 12. | Radio Power Supply |
| 13. | Power Cord |
| 14. | External Radio Post |

External Radio Power

The External Radio is powered via Power over Ethernet (PoE).

External Radio Connectivity

The External Radio is physically separate from the Dock and connects via an Ethernet backhaul, enabling flexible placement of the radio.

The External Radio supports multiple antenna configurations depending on the operational needs. When properly positioned, the External Radio can maintain Connect SL connections at distances up to 7.5 miles (12 km) in optimal conditions.

Remote Piloting Station Overview

The Ground Control System for Dock and Remote Operations includes the Remote Piloting Station from which the RPIC will operate the drone. To pilot the drone remotely, the RPIC will need:

- A computer with an Internet Connection meeting the minimum [System Requirements](#)
- A large screen monitor
- Gamepad, or Keyboard with Sticky Keys disabled
- Skydio Enterprise App installed on a mobile device (to approve Remote ID)
- A Skydio Cloud account with the correct pilot login email
- Access to Skydio Remote Flight Deck
- Any additional equipment required by the pilot's organization (radio, etc.)

Remote Piloting System Requirements

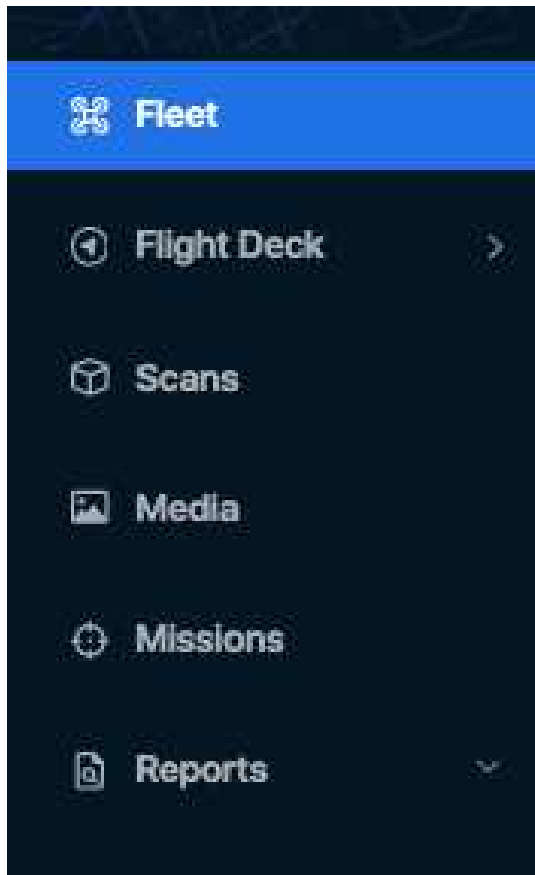
The Remote Pilot's computer, browser, and internet connection will need to meet the minimum system requirements for using Remote Flight Deck and for using Skydio Cloud.

For more information, see [System Requirements](#).

Skydio Cloud Overview

With Skydio Cloud, users can manage and fly their fleet of drones, sync media, integrate with third-party software, and much more. In this section we will provide a basic overview of the functions within Skydio Cloud and how it functions within the ecosystem of the entire Flight System. To set up Dock and Remote Operations, the Organization Admin will have to configure settings in Skydio Cloud.

NOTE: For more information on using and configuring Skydio Cloud, see the *Initialization* section.



Fleet

Users can see all the drones and equipment in the fleet and click into a specific flight system to check the health of the drone, Dock, External Radio and other equipment/hardware.

Flight Deck

Select to enter Remote Flight Deck and see the Map View along with the Information Panel, which displays drones in the organization, along with Personnel and the list of Incidents (DFR Command).

Dispatch (DFR Command Customers)

The Dispatch menu is only available for Skydio DFR Command customers. DFR Command is a suite of software designed to manage every aspect of a Drone as First Responder (DFR)

program. It integrates various components such as drones, Docks, dispatch systems, and evidence management, into a cohesive system that streamlines emergency response operations.

For more information, read [How to use DFR Command](#).

Scans

Use this tab to see the media from any scans that have been uploaded from drones in the fleet. Map Capture is available within the Missions tab. Media from any run Map Capture missions will appear here. View the Edge Model Viewer to get a more in-depth look at scan data.

Media

See all media that has been uploaded from drones in the fleet. Search and filter media by date, drone, pilot, or Site to quickly locate mission footage. Preview captured media, generate public sharable links, download or delete media, and view flight footage.

Missions

The Missions tab in Skydio Cloud is a centralized location to create and manage pre-planned autonomous flights for Dock-based drones. When a Mission is run, the drone will launch and automatically execute its defined actions, such as flying to pre-set waypoints or scanning an area. After landing, media will upload to Skydio Cloud automatically (Media Sync required). View media in the Media tab in Skydio Cloud once upload is complete. For more information, see *Mission Planning*.

Reports

Use this tab to view Reports. Summary Reports provide an overview of Flights, Flight Time, Average Flights per Day, Average Flight Time, and other helpful metrics. Generate Activity Reports by Pilot or Vehicle, view Reports on a flight by flight basis, or view Alerts that have been generated from Flight Systems in the fleet.

Settings

Displays different options depending on Cloud User Role access. Add users, add devices, configure flight settings, network settings, and integration settings. Organization Admins should use this tab to add users, create Groups, assign licences, and much more.

See *Initialization* for more details.

Settings: General

From this menu, Admins can set the organization name and optionally upload a logo, manage data capture settings, configure Remote ID requirements, and monitor the remaining simulator hours.

Refer to the *Initialization* section for detailed setup instructions.

Settings: Users

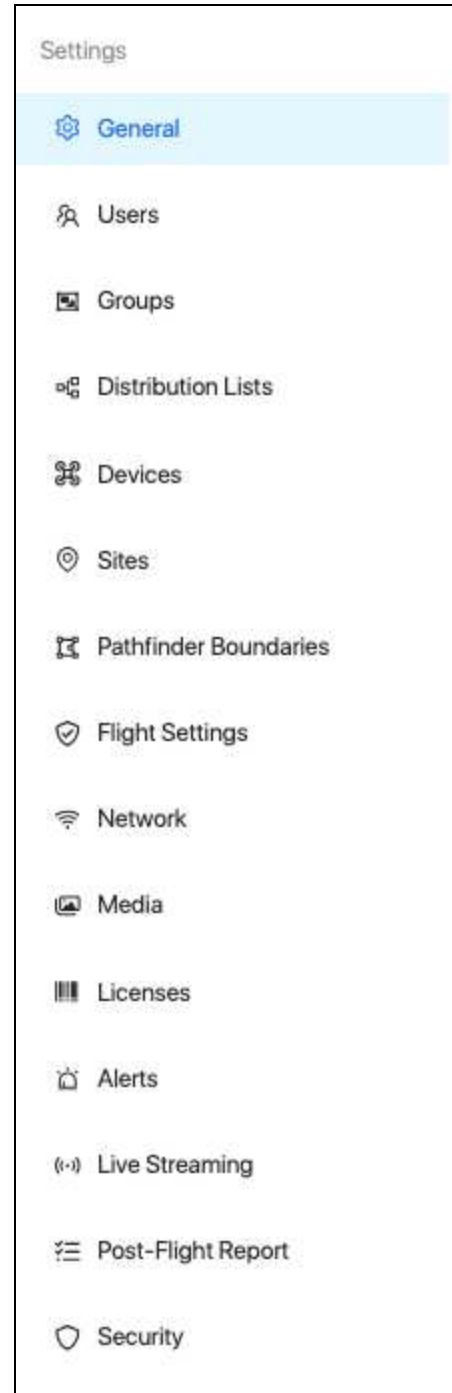
To enable remote operations, fleet management, and media access, each remote pilot or team member must have a user account in Skydio Cloud. This menu is used to manage the settings related to users and login flows.

Adding users ensures that flight activity, settings, and media are properly attributed and accessible based on role and permissions.

Role definitions and instructions for adding users can be found in the *Initialization* section.

Settings: Groups

The Groups menu allows Organization Administrators to segment and manage access to flight systems and their associated data. Groups are used to organize drones, Docks, flight history, and media so that only certain users or user roles can view or interact with specific assets. Every organization starts with a default **Entire Organization** Group, which contains all of the claimed devices.



Settings: Devices

The Devices menu is where Organization Admins manage all hardware components within the flight system. Devices must be claimed and, where applicable, linked in order to receive updates, report usage data, and receive health status notifications.

Hardware that must be claimed includes drones, Docks, controllers, External Radios, sensor packages, batteries, and attachments. Once claimed, these components can be renamed, grouped, or assigned additional licenses as needed.

Instructions on claiming and linking devices can be found in the *Initialization* section.

Settings: Sites

Organization Admins use the Sites menu to define the areas of operation for Dock-based missions. Within a Site, users can configure GPS-based Zones (Geofences), designate Safe Landing Points, and add flight systems, all of which help enable consistent mission boundaries, system behavior, and airspace safety.

Site setup instructions can be found in the *Initialization* section.

Settings: Flight Settings

The Flight Settings menu allows Organization Admins to configure default flight behaviors for all Dock-based flights within the organization. These settings can be overridden during flight from the Remote Flight Deck settings menu.

Details on configuring default flight settings can be found in the *Initialization* section.

Settings: Media

The Media Settings menu allows Organization Admins to define how media is captured, uploaded, and stored during flight operations. Users can define settings such as; 1) Selecting which media types are automatically uploaded (e.g., images, videos, and scan data), 2) enabling automatic file deletion from the drone's SD card after uploading, and 3) using the Watermarks toggle to enable or disable visible overlays on color and thermal media that display the date, time, and drone details.

Organizations operating both docked and non-docked flight systems can configure separate media upload policies to fit their workflows.

Settings: Licenses

Allows Organization Admins to add and manage software licenses across their fleet. From this menu, Admins can view active and expired licenses by type, track license history, reassign licenses to different flight systems, and review license expiration dates.

For steps on adding a license, users should refer to the *Initialization* section.

Settings: Alerts

The Alerts menu allows Organization Admins to configure automated notifications based on key system events. Alerts can be delivered via email (to internal users) or webhooks, enabling real-time awareness of operational issues and system activity.

Instructions for setting up Alerts can be found in the *Initialization* section.

Settings: Live Streaming

Organization Admin, Remote Pilot, and Cloud User roles all have access to the Live Streaming menu in order to view and share ReadyLinks. View a list of current and expired streaming sessions. Each session can be shared externally using a generated ReadyLink and optional PIN.

A ReadyLink is automatically generated when flying via Remote Flight Deck.

The Live APIs tab also allows organization-wide settings to be enabled or disabled for RTSP video streaming and live telemetry. These features allow Skydio devices to broadcast data through external API integrations.

If RTSP streaming is enabled, admins will be able to view a streaming card within the drone's Device Page (Device Page > Connectivity). This card contains the RTSP URLs available for that particular vehicle based on its camera configuration.

When Live Telemetry is enabled, telemetry data for inflight drones will be available via a Skydio External API websocket.

More information regarding Skydio's External API documentation can be found here:

- [RTSP Streaming](#)
- [Live Telemetry](#)

Settings: Post-Flight Report

Skydio Cloud offers customizable Post-Flight Reports to help you capture the real-world impact of your agency's drone operations, meet FAA compliance, and streamline internal record-keeping. Post-Flight Reports provide a clear process for tracking important data that can help demonstrate program success, improve operations, and drive informed decision-making.

Post-Flight Reports are automatically linked to your organization's flights in Skydio Cloud and will be presented to pilots directly in Remote Flight Deck after landing (default).

Settings: Security

The **Security** settings control how flight data stored on the drone's SD card is protected during and after flight operations. Skydio Cloud supports cloud-managed encryption, which secures media and logs without requiring physical encryption hardware.

When cloud-managed encryption is enabled, encryption keys are provisioned and managed through Skydio Cloud at the organization level. Flight data written to the SD card is encrypted automatically, and access to that data is restricted to authorized users within the organization. This helps protect sensitive media and logs if a drone lands outside the Dock, is recovered by a third party, or experiences an unexpected event.

For Dock-based operations, the encryption and decryption process is handled automatically. When a drone lands in its Dock, Skydio Cloud verifies the organization's credentials and unlocks the SD card to allow Media Sync and post-processing to proceed without manual intervention. Authorized users can also decrypt encrypted files using a secure, browser-based workflow with organization credentials and a passphrase, maintaining chain-of-custody requirements.

Cloud-managed encryption is designed to simplify fleet-wide security management while maintaining compliance with data-protection standards.

For instructions on enabling cloud-managed encryption and managing encryption keys, see the *Initialization* section of this manual.

NOTE: *Cloud-managed encryption replaces hardware-based encryption methods. An organization must use either cloud-managed or hardware-based encryption.*

Settings: Transparency Dashboard

The Transparency Dashboard enables organizations to share selected flight data with the public as a means of fostering community trust. All Cloud roles have access to publish specific flight details such as date, time, case ID, and a description of the flight purpose while keeping pilot information private.

Organization Admins can customize the dashboard by uploading a logo, setting a title and description, and creating a custom URL.

More information about the Transparency Dashboard can be found in the *Initialization* section.

Settings: Developer Tools

The Developer menu in Skydio Cloud gives Organization Admins access to tools for integrating external systems with Skydio data, alerts, and events.

API Tokens allows Organization Admins to securely connect to the Skydio API to automate workflows, access flight data, or build custom applications. **Webhooks** let admins send real-time event notifications, such as completed missions or new media uploads, to other platforms the team uses.

Integrations

Existing and available integrations on Skydio Cloud can be viewed within the Integrations menu. These integrations can be used to have data flow between third-party integration and Skydio Cloud to help maintain and maximize existing workflows.

Checking the Health/Details of the Flight System

Drone Device Overview

The screenshot displays the Skydio Cloud interface for a specific drone device named 'Avino'. On the left, a sidebar menu lists various settings categories such as General, Users, Groups, Devices (highlighted), Sites, Flight Settings, Network, Media, Licenses, Alerts, Live Streaming, DFR, Axon Integration, Transparency Dashboard, and Developer options. The main content area is titled 'Avino' and includes sub-tabs for Overview, Connectivity, Settings, and Simulator Tools. The 'Details' section provides a comprehensive overview of the device's status: Connectivity is 'Online', Device Health is 'Limited Operation', Battery is at 100%, Serial Number is 'sim-7bsizwx', Software is 'Unknown', and Lifetime Flights are '0 flights (0 hours)'. A map shows the drone's current location at 890 Market Street, San Francisco, CA 94102. Below the details, the 'Flight System' section lists various components: 'Avino-dock' (Online), 'No External Radio', 'Avino (current device)' (Limited Operation, Online), and several simulator instances (sim_23sim.i7bsi, 83_4_sim.i7bsizwx, 91_5_sim.i7bsizwx). A 'Notes' section is also present at the bottom.

Users can navigate to **Settings** > **Devices** > and select the name of the device to open the Device Overview page.

The **Details** section displays:

- Connectivity
- Device Health
- Battery Level
- Lifetime Flights

- Prop Hours
- Propeller Type
- Cloud Settings Last Synced
- Site
- ANSI Serial

The **Issues** table should be checked to see if any issues need to be addressed prior to flight.

The **Flight System** Section offers a detailed look into the health of each component of the Flight System for the:

- Dock
- External Radio
- Drone
- Sensor Package
- Attachment(s)

Any **Notes** for this Device will appear at the bottom of the Device Overview page.

Drone Device Connectivity

The screenshot shows the 'Cayley Release' settings page, specifically the 'Connectivity' tab. The breadcrumb trail is 'Settings / Devices / Drones / Cayley Release'. The page title is 'Cayley Release' with an edit icon. Below the title are four tabs: 'Overview', 'Connectivity' (selected), 'Settings', and 'Simulator Tools'. The main content area is divided into four sections: 1. 'Network Details' with input fields for 'MAC Address(es)' and 'IP Address(es)'. 2. 'Connect Fusion' with a note that settings are synced across devices, a 'Connect 5G' toggle switch (currently off), and a description: 'Enable cellular connection for extended range. Carrier data rates may apply.' Below this are 'Restore Default' and 'Save' buttons. 3. 'Streaming' with the text: 'No streams available. Enable them in Settings > Live Streaming > Live APIs'. 4. 'Speed Test' with a 'Start' button, a 'Vehicle' label, and three buttons: 'Downlink' (highlighted in blue), 'Uplink', and 'Media Sync'. A note at the bottom of this section reads: 'Tests download speed from Skydio Cloud to the vehicle over a 25-second TCP connection.'

Here, the connectivity details of the drone are shown such as:

- Network Details (Mac Address/IP Address)
- Connect Fusion/5G Toggle
- Streaming links for RTSP
- Speed Test

Drone Device Settings

Settings / Devices / Drones / Cayley Release

Cayley Release

Overview Connectivity **Settings** Simulator Tools

Licenses

| Type | Expiration | Action |
|------|------------|--------|
|------|------------|--------|

Remote Operations

Enable Remote Operations

Enable Scheduled Missions

Tools

Reboot Device Reboot

Upload Skydio Device Support Log Upload

Delete Vehicle Media Delete

Delete Vehicle Logs Delete

Download Cloud Configuration for this device Download

Pathfinder

Regenerate Map

Status Available

Map Last Generated 12/17/2025, 10:46:13 AM

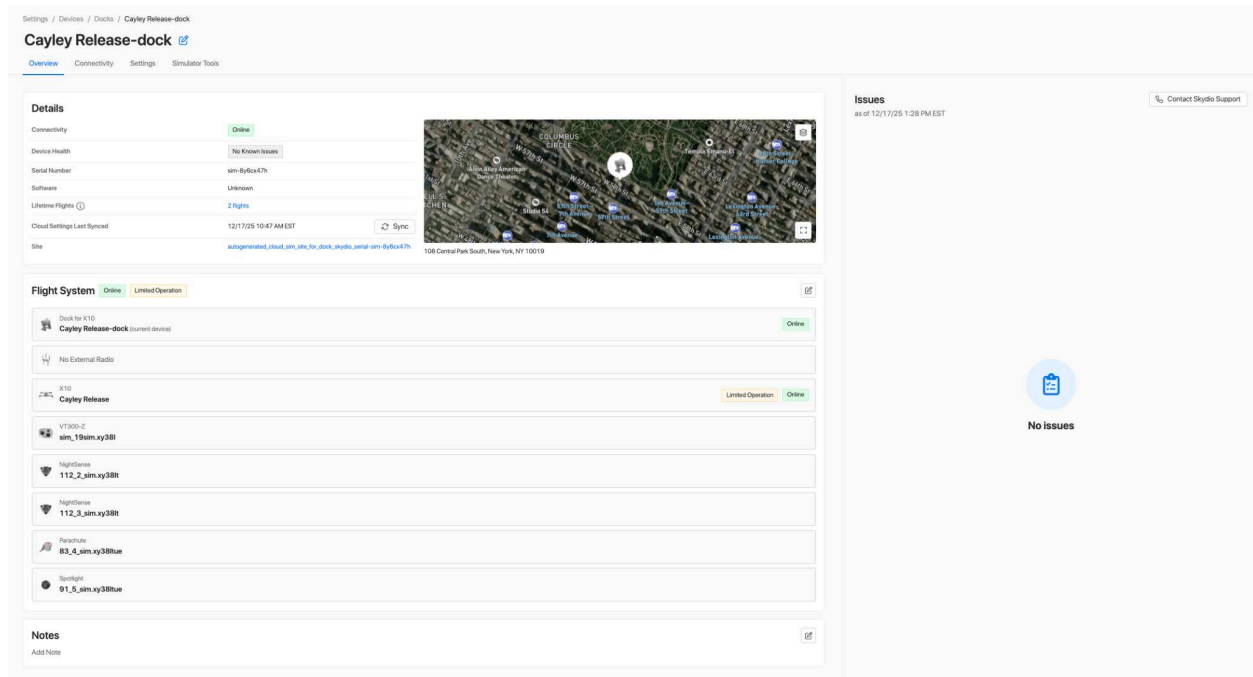
Landing Behavior

Precise Landing Reset ⓘ

Within the Device Settings for a drone, users will be able to:

- Update Software
- View Licenses for that drone
- Enable Remote Operations
- Use Tools (like Rebooting a Device or Uploading Logs)

Dock Device Overview



Entering into Settings > Devices > and selecting the Dock opens the Device Overview page. Here users can check the **Details** such as:

- Connectivity
- Device Health
- Serial Number
- Software
- Lifetime Flights
- Cloud Settings Last Synced
- Site

The **Issues** table should be checked to see if any issues need to be addressed prior to flight.

The **Flight System** Section offers a detailed look into the health of each component of the Flight System for the:

- Dock
- External Radio
- Drone
- Sensor Package
- Attachment(s)

Any **Notes** for this Device will appear at the bottom of the Device Overview page.

Dock Device Connectivity

Overview **Connectivity** Settings

Network Details

| | | |
|-----------------|------------|--|
| MAC Address(es) | 3a:1d | |
| IP Address(es) | - | |
| Carrier(s) | T-Mobile | |
| ICCID | 0000000000 | |

Connect Fusion

Note: Connect Fusion settings are kept synced between each linked dock, drone, and external radio

Connect 5G

Enable cellular connection for extended range. Carrier data rates may apply.

[Restore Default](#) [Save](#)

Streaming

| | | |
|----------------|---|--|
| Color | rtsp://stream.skydio.com/SkydioX10-1234/color | |
| Thermal | rtsp://stream.skydio.com/SkydioX10-1234/thermal | |
| Live Telemetry | wss://stream.skydio.com/data/SkydioX10 | |

Speed Test

[Start](#)

Vehicle [Downlink](#) [Uplink](#) [Media Sync](#)

Users can view details for:

- Network Details (Mac Address/IP Address)
- Streaming links for RTSP
- Speed Test

Dock Device Settings

The screenshot displays the 'Dock Device Settings' interface. It is divided into two main sections: 'Status Indicators' and 'Tools'.
In the 'Status Indicators' section, there are two settings:
1. 'Lights': A radio button selection with 'Always On' selected (indicated by a blue dot) and 'Off When Not in Operation' unselected.
2. 'Sounds': A horizontal slider with four positions: 'Off', 'Quiet', 'Standard', and 'Loud'. The slider is currently positioned at the 'Standard' level.
In the 'Tools' section, there are three rows, each with a text label on the left and a button on the right:
1. 'Reboot Device' with a 'Reboot' button.
2. 'Upload Skydio Device Support Log' with an 'Upload' button.
3. 'Download Cloud Configuration for this device' with a 'Download' button.

Within the Dock Device Settings the Status Indicators for Lights and Sound can be set.

- **Lights:** Select between **Always On** and **Off When Not in Operation**
- **Sounds:** Select between **Off, Quiet, Standard,** and **Loud**

Rebooting a Device

Docks, drones, and External Radios can be rebooted from Skydio Cloud.

Users should follow these steps to reboot a device:

1. Select **Settings > Devices**
2. Select the Device to open the Device Overview Page
3. From here, select the **Settings** tab (underneath the name of the Device)
4. Within the Tools section select **Reboot**

Uploading Logs

When reaching out to Skydio Support for troubleshooting help, customers may be required to upload logs to assist in diagnosing issues.

There are two different types of logs that can be uploaded:

Flight Support Logs contain data from a specific flight. If a remote pilot experiences an issue during flight, such as a failed return to the Dock, he or she would upload a Flight Support Log.

Device Support Logs include debugging data from outside of a flight, such as failures to launch or device-specific issues (e.g., the Dock camera isn't working). These logs help address issues that occur before or after flight.

How to upload a Flight Support Log

1. Navigate to the **Flight Systems Page** (Fleet > Select the device)
2. Scroll to **Flight History** (located under the Dock camera)
3. Select the ellipsis (three dots)
4. Select **Upload Skydio Flight Support Log**

How to upload a Device Support Log

1. Open the Device Page (**Settings** > **Devices** or select the device from the Fleet page and the gear icon)
2. From the Device Page, select the Settings tab (under the name of the Device)
3. Within the Tools section, select the **Upload** button next to *Upload Skydio Device Support Log*

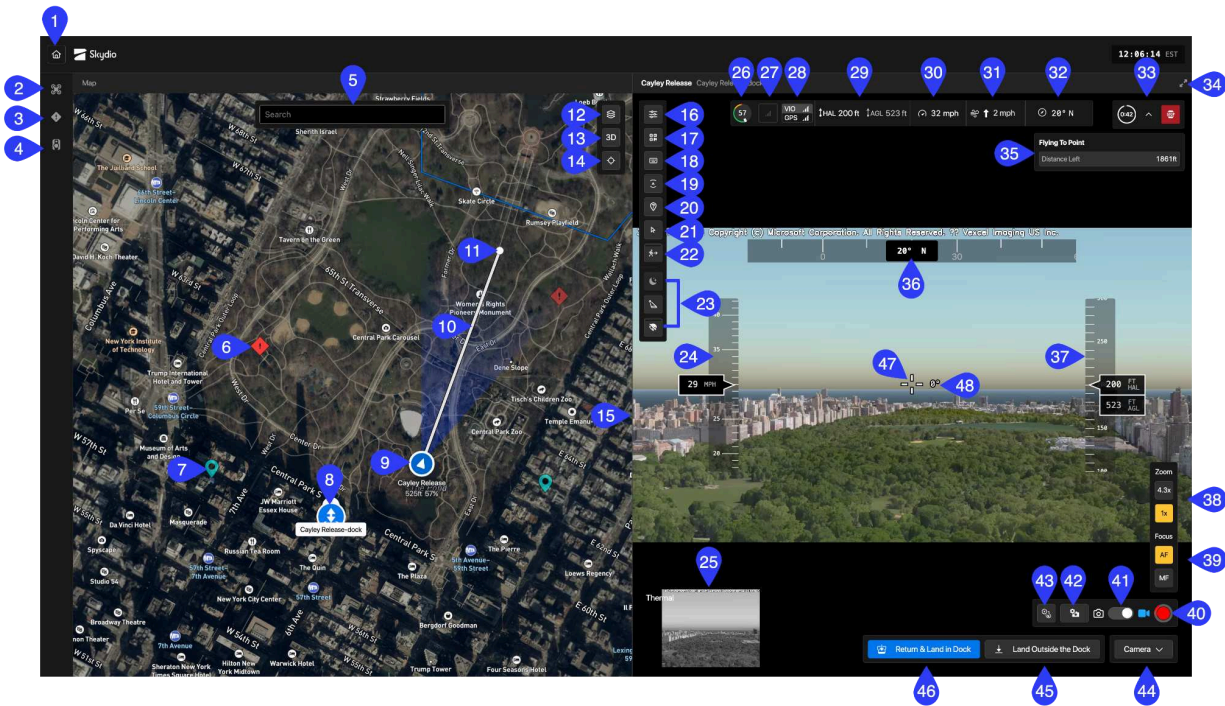
Remote Flight Deck Overview

Remote Flight Deck (RFD) is a browser-based interface that allows Remote Pilots to operate Skydio X10 from a remote location.

RFD provides pilots with:

- Full manual flight controls
- Automated flight behaviors like Return, Fly Here Now, and Custom Markers
- ADS-B air traffic alerts
- Dock Weather Sensor readings
- Map tools to help maximize situational awareness
- Photo, Video, and Thermal tools
- The ability to share ReadyLinks
- Flight health monitoring
- Real-time telemetry
- Critical inflight settings (e.g., return behavior, height ceiling)
- 2D and 3D Map Views
- Flight around Geofences created on the Dock and Remote Operations Site
- AR tools such as Street Overlay
- Heads up Display including crosshairs, airspeed, altitude, heading, and more

Remote Flight Deck Interface



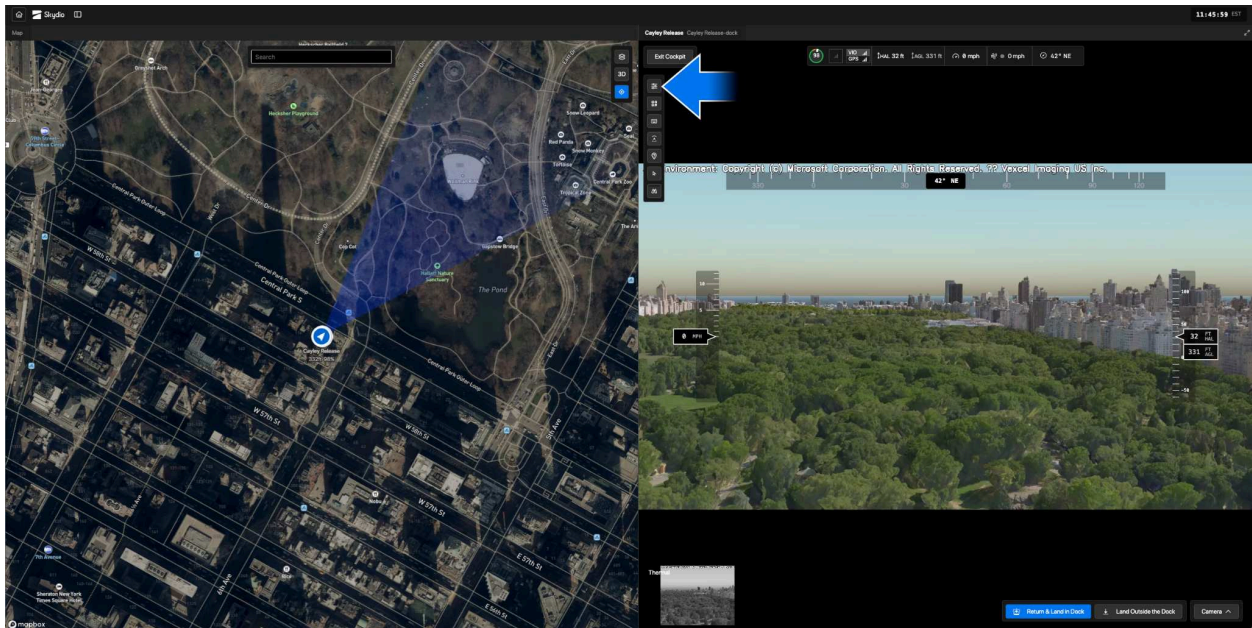
1. Return to Skydio Cloud (exit Remote Flight Deck)
2. Information Panel - Devices
3. Information Panel - Incidents
4. Information Panel - Personnel
5. Map Search (address/location)
6. Incident Marker
7. Custom Marker
8. Dock/Launch Location
9. Drone location and orientation
10. Flight Path
11. Fly Here Now location
12. Map Layers
13. 2D/3D Map View
14. Lock view to drone (center)
15. Drag to resize the map or video feed
16. RFD Settings
17. Share ReadyLink
18. View Controls (`)
19. Configure Obstacle Margins (R)
20. View/Hide Crosshair Ground Point Information
21. Enter Pointer Lock (C)
22. Enable/Disable Shadow Subject Track or Follow

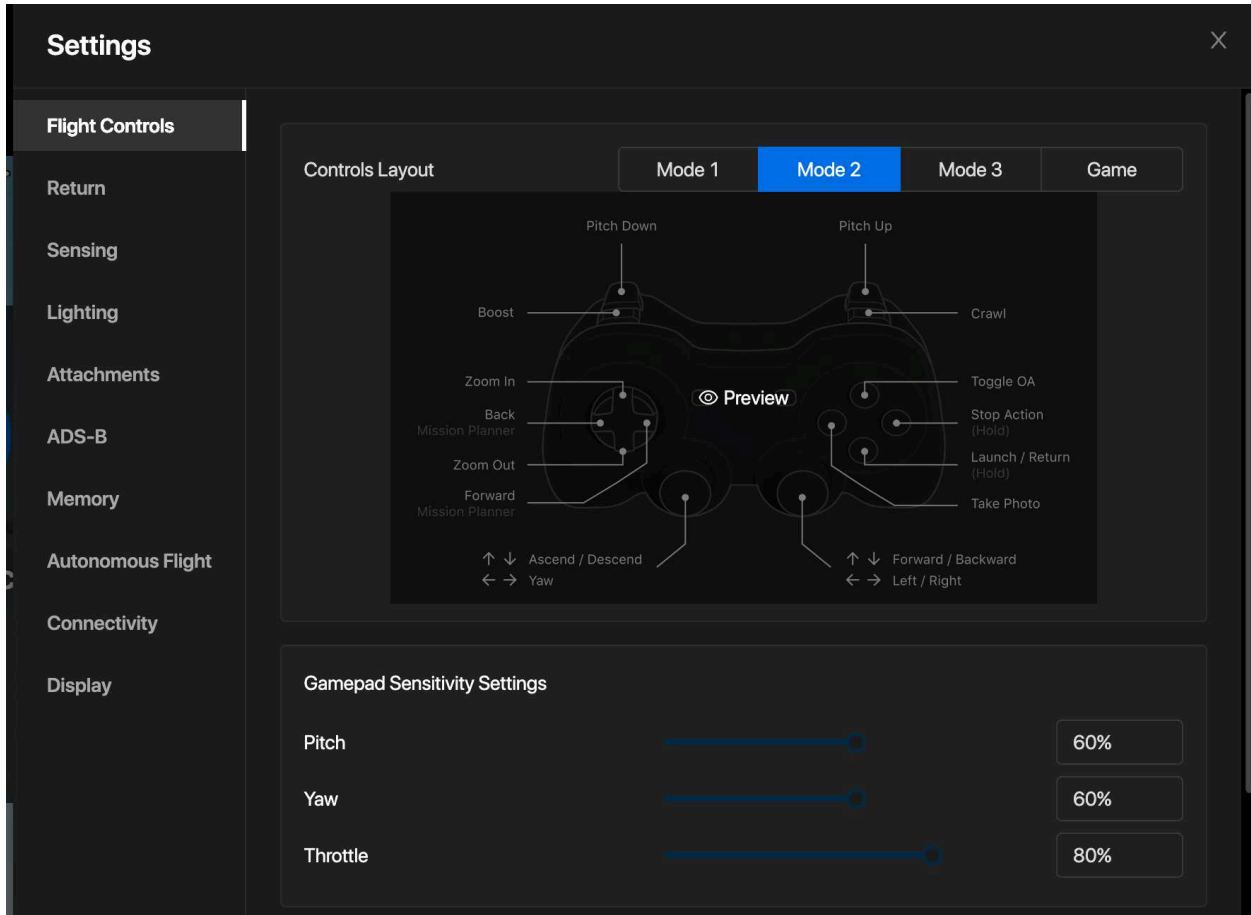
23. Attachment Quick Actions
24. Heads-Up Display (HUD): Airspeed
25. Picture-in-Picture (PiP) and Color/Thermal Stream Selector
26. Battery Level
27. Connection Health
28. Positioning System Health Indicator
29. Telemetry: Height Above Launch (HAL) and Height Above Ground Level (AGL)
30. Vehicle Speed
31. Wind Speed and Direction Relative to Vehicle
32. Heading Angle
33. Time to Destination and Stop Autonomous Flight
34. Maximize/Minimize View (video feed)
35. Autonomous Mission Summary (e.g., Fly Here Now)
36. Heads-Up Display (HUD): Compass
37. Heads up Display: Altitude (HAL/AGL/MSL)
38. Zoom Controls
39. Focus Controls (AutoFocus or Manual Focus)
40. Shutter/Record
41. Video Mode/Photo Mode
42. Video/Photo Settings
43. Thermal Settings
44. Toggle Camera Settings
45. Land Outside the Dock
46. Return and Land in Dock
47. Crosshair
48. Gimbal Angle

Remote Flight Deck: Settings

NOTE: Various images in this manual leverage simulated environments from Skydio Paraverse. Visuals and workflows are representative of operational use of Skydio Remote Flight Deck, but may include rendered environments.

The Remote Flight Deck Settings menu is accessible both while grounded or during flight. Use this menu to configure the inflight drone settings, including Return and Lost Connection behaviors.





Remote Flight Deck Settings: Flight Controls

Controls Layout (Gamepad only)

Allows the pilot to select between Mode 1, Mode 2, Mode 3, or Game Mode when operating with a Gamepad.

Gamepad Sensitivity Settings (Gamepad only)

Allows the pilot to adjust the Pitch, Yaw, and Throttle Settings.

- Pitch - Controls forward and backward movement
- Yaw - Changes rotation around the vertical axis
- Throttle - Controls altitude

Desired Vehicle Speed (Keyboard only)

Allows the pilot to change the overall speed and sensitivity of the drone. By increasing or decreasing drone speed, the drone's Pitch and Yaw sensitivity will also increase or decrease.

NOTE: Pointer Lock sensitivity will remain the same regardless of Desired Vehicle Speed.

Double-click to Fly

Remote Pilots can double-click anywhere on the video feed to Fly to that point in space. An AR destination will appear on screen when flying. Scroll Up to move the destination further away, scroll down to move the destination closer.

Height Ceiling

Restricts the altitude of the drone during flight. More information on using Height Ceilings in environments with varying terrain/elevation can be found *In Flight > Keep in and Keep out Geofences > Using Ceilings in Varying Terrain*.

NOTE: Height Ceilings can only be set above the current altitude of the drone. Height Ceilings cannot be higher than 1500ft (457.2m)

Weak GPS Altitude Limit

Restricts the altitude of the drone when GPS becomes weak. When enabled, the altitude of the drone will be limited to approximately 165 ft (50 m) when GPS becomes weak.

Remote Flight Deck Settings: Return

Return Speed

Sets the speed at which Skydio X10 returns to the Dock.

- Default/Maximum Return Speed: 36 mph (16 m/s)
- Minimum Return Speed: 4 mph (1.7 m/s)

Return Path

Specifies how the drone will return:

- **Pathfinder** is Skydio's onboard routing engine that plans efficient, airspace-aware and terrain-following routes. When enabled, the drone will use Pathfinder to navigate back to the Dock. If Pathfinder is unavailable while returning, the drone will use Up and Over.
- **Up and Over** will fly directly to the return point at the height specified below.
- **Backtrack** returns using the previously flown path. Backtrack is only available when Obstacle Avoidance is enabled. If a pilot selects Backtrack, he or she can specify contingency Up and Over Settings in the event that obstacle avoidance is disabled on the drone's return (i.e., it starts raining).

- **If Obstacle Avoidance is turned off** (e.g., because of precipitation), the vehicle will use Up and Over return instead of Backtrack.

Up and Over Height Settings

Specifies whether the return height should be absolute, or relative to the current height of the drone

- Set the desired **Return Height**.
- **Above Dock** sets the return height above the altitude of the Dock
- **Above Vehicle** sets the Return Height above the vehicle's current inflight altitude, at the time that a return is initiated

Lost Connection

Sets the amount of time the drone should hover (and try to regain connection) before returning in the event of a Lost Connection.

- Set the **hover time** between 0 seconds and 180 seconds

Remote Flight Deck Settings: Sensing

Flight Environment

Allows Remote Pilots to select between Standard or Low Light Mode. Enabling Low Light Mode will disable obstacle avoidance and automatically enable NightSense (if connected).

- **Standard** - use Standard Mode in daytime conditions
- **Low Light** - use Low Light Mode when flying at night or in low light conditions

Preview where Drone Looks

Allows Remote Pilots to preview where the drone will look when arrow keys are tapped. When adjusting Desired Vehicle Speed with hot keys ([and]), on-screen arrows will expand or contract to indicate how speed affects the viewpoint. Inapplicable in Pointer Lock.

Remote Flight Deck Settings: Lighting

RGB

The lights on the end of the arms will appear red and green while flying. When the drone is powered on and grounded, the lights will appear blue.

Users can select **Navigation (default)**, **Police**, or **Emergency** to change the configuration of the RGB lights. When Police or Emergency are enabled, the front and back RGB lights on the drone will flash and alternate colors between the right and left arms.

- Navigation lights are solid red and green
- Police flashes blue and red

- Emergency flashes blue and white

NOTE: The Public Safety Lights option is only for strict use by authorized users comprising public safety first responders and emergency personnel performing a public safety mission. When operating in airspace viewable to the public, unauthorized users must refrain from using these police or emergency lights. Failure to comply may result in violations of local laws, regulations and ordinances and could subject the non-compliant user to civil or criminal penalties, fines, or other legal consequences.

Strobe

Enable Strobe Lights to visually track the drone in low-light conditions. Skydio X10 strobe lights meet the FAA requirement of being visible at a distance of 3 statute miles (4.8 km).

Infrared

IR lights cannot be seen by the naked eye. These broadcast an IR light that can only be detected with an infrared lens.

Remote Flight Deck Settings: Attachments

Spotlight

The Spotlight does not have settings that are configurable within the Settings menu. The Spotlight icon can be selected within the Attachments panel in Remote Flight Deck to toggle the Spotlight on and off. The angle of spotlight must be set prior to launch.

NightSense

- **Auto-On When Entering Low Light Flight Mode** – Remote Pilots can set whether they want NightSense to turn on automatically when entering Low Light Mode to maintain obstacle avoidance.
- **Auto-Off When Using Pathfinder** – NightSense turns off when flying with Pathfinder to reach maximum speed (disables obstacle avoidance). Enables NightSense on arrival or when paused.
- **Auto-Off When Using Boost** – When enabled, temporarily disable NightSense (turns off obstacle avoidance) to access the drone's maximum speed. When enabled, this setting turns NightSense off and allows boost (higher max speed). Turning the setting off returns NightSense to its standard behavior and restores the capped speed.

Speaker

The angle of the speaker must be set prior to launch.

Once launched, selecting the speaker action within the flight screen of Remote Flight Deck will allow Remote Pilots to:

- Push to talk
- Play pre-recorded audio or
- Record a custom audio message

For optimal quality, we recommend flying approximately 130 ft (40 m) above and 164 ft (50 m) away from bystanders.

Parachute

When the setting is toggled on, the Parachute will be enabled. When the Parachute is enabled and the drone is on the ground, the Parachute will be disarmed. The Parachute will automatically arm after launch. When the setting is toggled off, the Parachute is disabled and will not deploy either automatically or manually.

Remote Flight Deck Settings: ADS-B

Aircraft Alerts

The ADS-B Alert Range allows Remote Pilots to specify between Small, Medium, and Large alert ranges. Pilots will be notified if an aircraft enters the alert range. The horizontal values represent the nautical miles and the vertical values represent feet.

Aircraft inside this alert range will show as red on the Map View and pilots will receive an audible alert on the Flight Screen.

Aircraft outside of this alert range will show as white on the map.

Aircraft Filter

Outside 6 nautical miles and/or above 3,000 feet, aircraft are excluded from the display and will not show on the map.

Remote Flight Deck Settings: Memory

Manage Vehicle Media (only available on the ground)

Selecting Format Media Card will delete all media from the media SD Card. Any files already synced to Skydio Cloud will remain unaffected. Users should be sure all necessary files are backed up before formatting. This action should only be performed with organizational approval.

Manage Vehicle Logs (only available on the ground)

Selecting Format Logs Card will delete all flight logs from the SD Card. Users should be sure all necessary files are backed up before formatting. This action should only be performed with organizational approval.

Remote Flight Deck Settings: Autonomous Flight

Fly Here and Respond Here Travel Height

When a Fly to Point is created (or when the drone responds to a Custom Marker), the drone will first ascend (or descend) to the specified Travel Height and then begin flight towards the Fly to Point. The drone will fly autonomously until it reaches the destination.

Climb to Travel Height

Defines how the drone will ascend or descend to the Travel Height.

- **Vertical** - the drone will ascend or descend vertically before beginning to travel to the Fly to Point or Custom Marker.
- **Diagonal** - the drone will immediately begin traveling to the Fly to Point or Custom Marker while gradually ascending or descending to the Travel Height en route

Remote Flight Deck Settings: Connectivity

Band Selection

Allows Remote Pilots to select the radio bandwidth.

- 5GHz
- DFS (Dynamic Frequency Selection)

Channel Selection

Allows Remote Pilots to set the radio frequency channel in order to avoid congestion from other signals. This is set to Auto by default.

| 5 GHz | DFS |
|--------------------|--------------------|
| Auto | Auto 52: 5250–5270 |
| 36: 5170–5190 MHz | MHz 56: 5270–5290 |
| 40: 5190–5210 MHz | MHz 60: 5290–5310 |
| 44: 5210–5230 MHz | MHz 64: 5310–5330 |
| 48: 5230–5250 MHz | MHz 68: 5330–5350 |
| 149: 5735–5755 MHz | MHz 96: 5470–5490 |
| 153: 5755–5775 MHz | MHz 100: 5490–5510 |
| 157: 5775–5795 MHz | MHz 104: 5510–5530 |
| 161: 5795–5815 MHz | MHz 108: 5530–5550 |
| 165: 5815–5835 MHz | MHz 112: 5550–5570 |
| | MHz 116: 5570–5590 |
| | MHz 120: 5590–5610 |
| | MHz 124: 5610–5630 |
| | MHz 128: 5630–5650 |

| | |
|--|---|
| | MHz 132: 5650–5670 MHz 136: 5670–5690 MHz 140: 5690–5710 MHz 144: 5710–5730 MHz |
|--|---|

Remote Flight Deck Settings: Display

AR Street Overlays (Beta)

Enables AR Street Overlays to see street names, address numbers, and points of interest projected onto the camera view.

- Road Lines can be displayed as **None, Thin, or Thick**.
- Labels in the Map View can be displayed as **None, Street, Street and Address,** and **Street, Address, and Points of Interest**.
- Smoothing levels can be set between **Smoother** and **Snappier**. This controls how smooth or snappy the overlay shifts and adjusts to the flight movements on screen.

NOTE: Remote Pilots must be flying high enough with the gimbal pitch pointed downward for the AR Street Overlays to populate on screen. If this setting is enabled but the pilot does not see AR Street Overlays, try increasing altitude if it is safe to do so, or try pointing the gimbal pitch down.

Altitude Display (Beta)

The primary altitude measure is height above launch (HAL) as shown in the Heads Up Display.

As a secondary altitude measure, Pilots can display:

- no secondary altitude,
- above ground level (AGL), or
- above mean sea level (MSL).

Heads Up Display

When toggled on, the Heads Up Display will populate which includes:

- Compass Heading
- Airspeed
- Altitude
- Centerpoint Crosshair (with gimbal pitch)

If Heads Up Display is toggled off, then airspeed, altitude, and compass heading will populate in the telemetry bar.

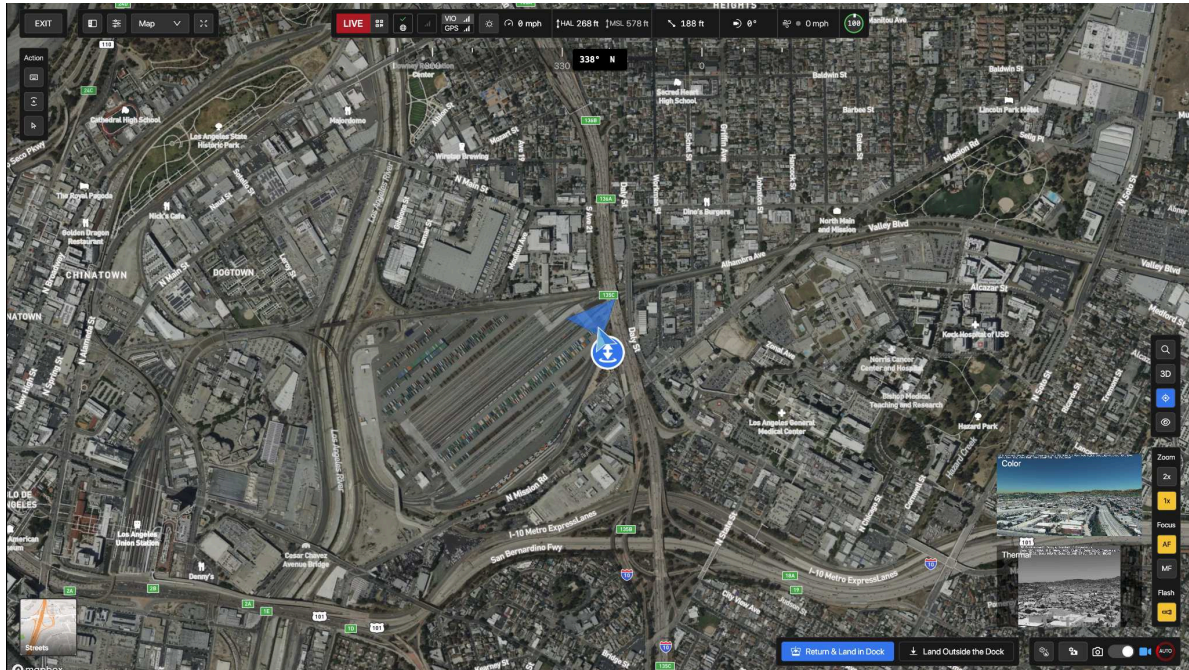
Markers AR

- When a Fly Here Waypoint is created, an AR Marker appears over the destination. Set the **Light Beam Height** and the **Light Beam Radius** that will display on-screen.
- As the Pilot approaches the destination, he or she must be prepared to take control of the flight. Pilots can adjust the Light Beam Height and Light Beam Radius to suit the flight conditions. AR Markers can be toggled off in the Display Settings.
- Markers AR are also useful for flying at night. If visibility is low with the color camera, Markers AR can help remote pilots stay oriented in space as they fly to the destination.

Remote Flight Deck: Layouts/Views

Single View (Map)

Remote Pilots can also alternate between the Color and Thermal views by selecting the corresponding Picture-in-Picture (PiP) option in the bottom right of the screen. In this view, the Split Screen View can be restored by selecting the Layout/View dropdown menu.



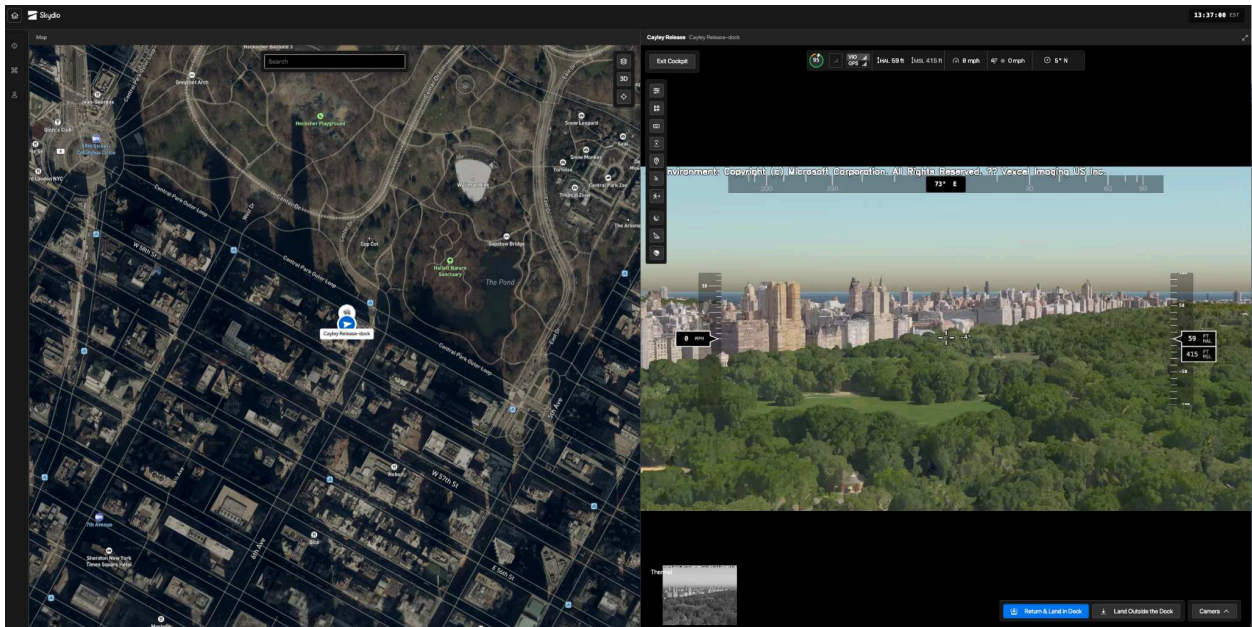
Single View (Color or Thermal)

The Picture in Picture tile can be used to alternate between the color or thermal camera. To bring back the default Split Screen View, pilots can select the Layout/View dropdown menu.



Split View (Video/Map)

The Split View is shown by default. Selecting the Picture in Picture tile alternates between the color or thermal camera on the left side of the screen.



Full Screen View

Selecting the full screen icon expands the view to full screen. Selecting **ESC** on the keyboard exits full screen.

Picture in Picture (Color/Thermal)

Selecting the Picture in Picture view alternates between the Color Camera and Thermal Camera.

Picture in Picture (Street View/Satellite View)

Selecting the Map Picture in Picture alternates between the Street View and Satellite View.

Picture in Picture (Dock Inspection Cameras)

Prior to launch, the Dock Inspection Camera PiP is available. Remote Pilots should use this during the Preflight Procedure. The Dock Inspection Cameras should be used to inspect the material condition of the drone, battery, attachments, Sensor Package, etc. More information can be found in *Preflight > Visually Inspect the Drone Using the Dock Cameras*.

Remote Flight Deck: Telemetry

ReadyLink

ReadyLink allows users to share a color view or thermal view of a live flight.

Users can share and view ReadyLinks within their organization to gain situational awareness of any multi-drone missions currently being conducted in the same vicinity as their flight.

Users can copy the link or use the QR code to share access to the flight. They can select the ReadyLink icon to view other flights within the organization. A ReadyLink can be scheduled by navigating to *Skydio Cloud > Settings > Live Streaming*.

NOTE: *The drone can have two ReadyLinks active at one time if one ReadyLink is scheduled in Cloud and one ReadyLink is generated Live during flight in the Telemetry bar.*

Browser Connection

Hovering over the Browser Connection icon displays the health of the browser connection. Here are the different states for the browser connection:

- Green checkmark: Browser connection is healthy
- Yellow exclamation triangle: Browser connection is degraded
- Red X: Disconnected





System Connection

The icon displayed in the telemetry bar will show the connection between the Dock and the drone. Selecting this icon will show additional connection details.

Positioning System: Navigation Health Indicator

The Navigation Health Indicator provides insight into the navigation source of the drone and its reliability. Visual Inertial Odometry (VIO) and GPS Health will display in the Telemetry bar.

- The source with a **light gray background** is the primary navigation source.
- **White status bars** show whether or not VIO/GPS is stable or degraded. One white bar indicates a degraded state that may be close to failure, meaning Remote Pilots must fly with caution and ensure the other navigation source is in a healthy state.
- **Zero bars** means the navigation source has failed and is relying completely on the backup source.
- **Yellow compass** indicates GPS is awaiting heading. If GPS heading hasn't converged yet, Remote Pilots will receive a notification prompting them to move the drone laterally to establish heading.
- **Yellow highlight** means the active navigation source is weak and the backup source is unavailable. If the highlighted source fails, the drone will enter Attitude Mode and automatically initiate an emergency landing.

| | |
|--|---|
| Nominal state (GPS is primary) |  |
| White status bars |  |
| Yellow highlight and yellow compass |  |
| The drone is performing an Emergency Landing |  |

Dock Weather Sensor Readings

Selecting the weather icon shows the Dock Weather Sensor Readings. Here Remote Pilots can view:

- Precipitation
- Wind Direction
- Wind Speed
- Gust Speed
- Temperature
- Dewpoint
- Humidity

Distance from Dock/Distance from Launch

This value indicates the distance from the Dock Launch point.

Gimbal Pitch

Displays the pitch (angle) of the gimbal. -90 degrees looks straight down (nadir). +90 degrees looks straight up. 0 degrees levels the gimbal to the horizon.

NOTE: *When the gimbal pitch is increased to approximately +45 degrees, the Sensor Package will rotate 180 degrees from its standard orientation to the upward orientation, allowing the Remote Pilot to look straight up. When decreasing the gimbal pitch back down, the transition to the standard orientation will occur at +5 degrees.*

Wind Speed and Direction Estimation

Here the Remote Pilot can view estimated wind speed and direction relative to the drone at altitude. Skydio X10 infers wind speeds and direction based on the difference between expected and observed drone behavior. The wind direction (shown as an arrow) is in relation to the heading of the drone.

NOTE: *Wind speed and direction are estimations, not a direct observation, of wind behavior.*

Battery

The Battery Indicator dynamically updates during flight based on altitude and distance from the return location. Monitor the indicator to understand how much battery is:

- Available for flight (green)
- Required to return (yellow)
- Required to land (red)

Green indicates the battery capacity for nominal flight before the time limit required to safely return and land.

- Decreases as battery capacity diminishes
- Adapts based on altitude and distance from the return location

Yellow indicates how much battery is required to safely return.

- Adapts based on altitude and distance from the return location

Red indicates how much battery is required to land.

- Adapts based on altitude and distance from the return location

The **lightning bolt** indicates the battery is connected and charging.

Remote Flight Deck: Map View and Settings

Search Address or Location

When using the search icon to search an address, location, or point of interest, search results will start populating automatically once the user begins typing. After selecting a search result, the Map View will re-orient to that location.

Users can right-click on the Map to set a **Fly to Point** or **Copy Coordinates** (lat/long) of that location.

2D/3D Map View

To enhance Situational Awareness of their surroundings, pilots can use 2D and 3D Map views.

The 3D Map View can help pilots identify buildings or infrastructure that may exist along the flight path or at the mission destination, enabling them to avoid obstructed views.

Remote Pilots can:

- Scroll up to zoom in on the Map View, scroll down to zoom out
- Press and hold “CTRL” while clicking and dragging the map.
- Use the 2D view or 3D view and select between a street or satellite view.
- Click and drag the mouse to move the map base.
- Press and hold “CTRL” on the keyboard to rotate the map in 2D or 3D Space.
- Search an address, location (like an intersection), or point of interest.

Lock View to ‘Drone Bottom Center’/Lock View to ‘Drone POV’

- Pilots can use the “lock view to drone bottom center” and “lock view to drone POV” tools to maintain a locked view on the drone as it moves through the map. Clicking anywhere on the map unlocks from these views.
- These views are also helpful to use if the drone has become no longer visible in the Map View. Lock View to Drone Bottom Center/Lock View to Drone POV to quickly re-orient the map back to the flight location and helps pilots regain situational awareness in the Map View.

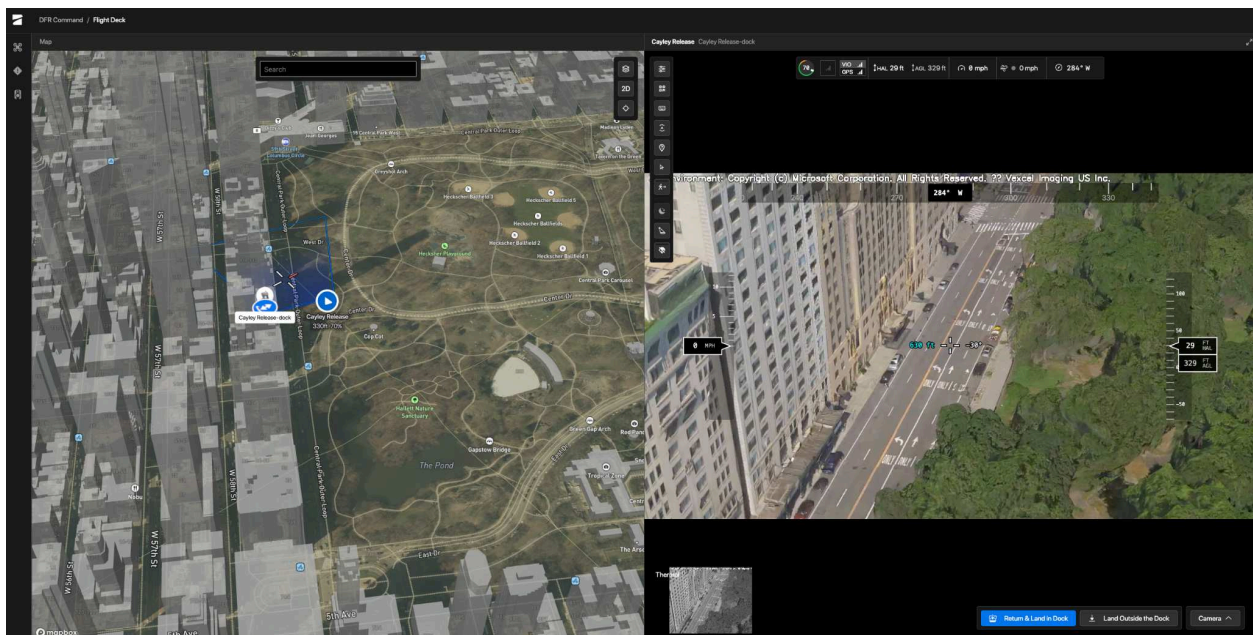
Crosshairs Ground Point (Ground Intercept Point)

The Crosshairs Ground Point is where the Crosshairs (from the Video view) reach the ground level and intersect with the terrain (ground). If the Crosshairs are pointed through a building for example, it will not count the distance to the building. Instead the measurement will continue until it reaches the ground level. This is the Crosshairs Ground Point.

Pilots must make sure the drone gimbal angle is pointed down towards the terrain (-5 to -90 degrees) otherwise the Crosshairs Ground Point may not populate.

The distance displayed to the left of the crosshairs in the video stream is the distance from the drone to the Crosshairs Ground Point.

The orange hash mark on the Crosshairs Ground Point represents true North and remains fixed as the drone moves.



Custom Markers

If a Custom Marker is created, it will appear as a turquoise tag in the Map View. When the drone is transiting to a Custom Marker, the tags will appear blue.

More information can be found in *Flight Operations > Custom Markers*.

Drone Location

The blue chevron on the map indicates the drone position, altitude, and heading. This icon moves in real time in the Map View as the drone flies.

Drone Field of View (Approximate)

The Drone Field of View volume approximates the camera's visible area and updates in real-time as the gimbal pitch or heading changes.

The Drone Field of View can help provide situational awareness during map based flight and can help refine Waypoint poses when *Mission Planning*.

NOTE: *The Field of View is approximate and fixed. Actual viewing volume may be different when flying.*

Fly to Point(s)

Right clicking on the Map View and selecting **Fly Here** will create a **Fly to Point**.

- The drone will ascend (or descend) to the Mission Height set by the remote pilot, then automatically fly until it reaches the Fly to Point.

Fly to Point(s) will be numbered on-screen, indicating the order at which the drone will fly to them.

- When the drone reaches a Fly to Point, it will automatically begin traveling to the next.
- Once all Fly to Points have been reached, the Mission will finish and the Remote Pilot will regain control of the drone.

Right-clicking on a Fly to Point will delete it. Users can click along the Flight Path to add multiple points or select and drag a Fly to Point to move it.

More information can be found in *Flight Operations > Fly to Point(s)*.

Flight Path

The **Flight Path** is shown as a white line between the drone and the Fly to Point(s).

- Remote Pilots can select anywhere along a Flight Path to add another Fly to Point.
- The Flight Path will appear gray if the drone is ascending or descending to its Mission Height.

NOTE: If the Flight Path intersects with a Keep-out Geofence Zone, then the Flight Path will be automatically adjusted to avoid the Keep-out area.

Copy Coordinates

Right-clicking on the Map View and selecting 'Copy Coordinates' will copy the latitude/longitude coordinates to the computer clipboard.

Geofences

Information about Geofences can be found in *Flight Operations: Keep-in and Keep-out Geofences*.

Remote Flight Deck: Video/Photo Tools and Settings

Zoom

| | |
|----------|-----------|
| 1 | Zoom 1x |
| 2 | Zoom 4.3x |
| 3 | Zoom 16x |
| 4 | Zoom 32x |
| 5 | Zoom 64x |
| 6 | Zoom 128x |

VT300-Z

Selecting 4.3x transitions between the narrow and telephoto lens, 128x max system zoom.

Selecting 1x returns the Video view to the 1x default zoom level of the narrow lens.

Remote Pilots can use Keyboard shortcuts to quickly jump to a zoom level:

| | |
|----------|----------|
| 1 | Zoom 1x |
| 2 | Zoom 2x |
| 3 | Zoom 16x |
| 4 | Zoom 32x |
| 5 | Zoom 64x |

VT300-L

Selecting 2x transitions between the wide and narrow lens with a 64x max system zoom.

Selecting 1x returns the Video view to the 1x default zoom level of the wide lens.

Remote Pilots can use Keyboard shortcuts to quickly jump to a zoom level:

Thermal Zoom (VT 300-Z and VT300-L only)

The thermal camera will zoom along with the color camera up to 16x

- For example, when flying with the VT-300Z, selecting “3” on the keyboard will set the color and thermal zoom to 16x
- Selecting “4” will set the color zoom to 32x and the thermal zoom will remain at 16x

Focus

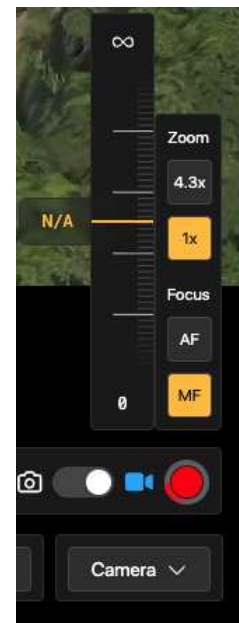
AutoFocus (AF)

By default, the camera will automatically adjust focus and exposure. In this focus mode, focus will generally prioritize objects in the center of the screen.

Manual Focus (MF)

Selecting the **Manual Focus (MF)** icon opens a vertical focus dial next to the Zoom and Focus controls. This dial allows the Remote Pilot to manually adjust the focus distance.

The Remote Pilot can also select either the **1x** or **4.3x** zoom icons to change the zoom level while fine-tuning focus.



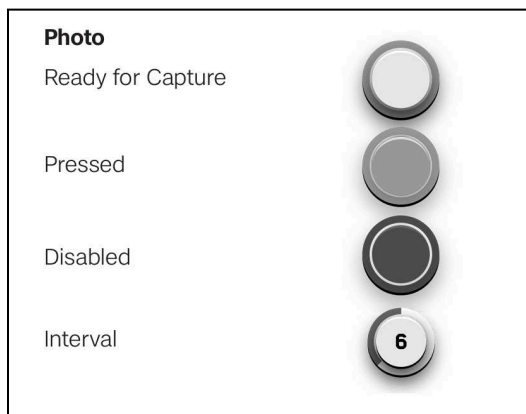
Flashlight (VT300-L and V100-L only)

Equipped on the Sensor Package is a Flashlight for capturing imagery in low light environments. Toggle the Flashlight on and off using the Flashlight button.

Shutter/Record

The Shutter is located in the bottom right of the Flight Screen and indicates the current state of Photo or Video mode. When in Video Mode, the drone will always Auto Record. Here are the shutter indicators for Photo Mode.

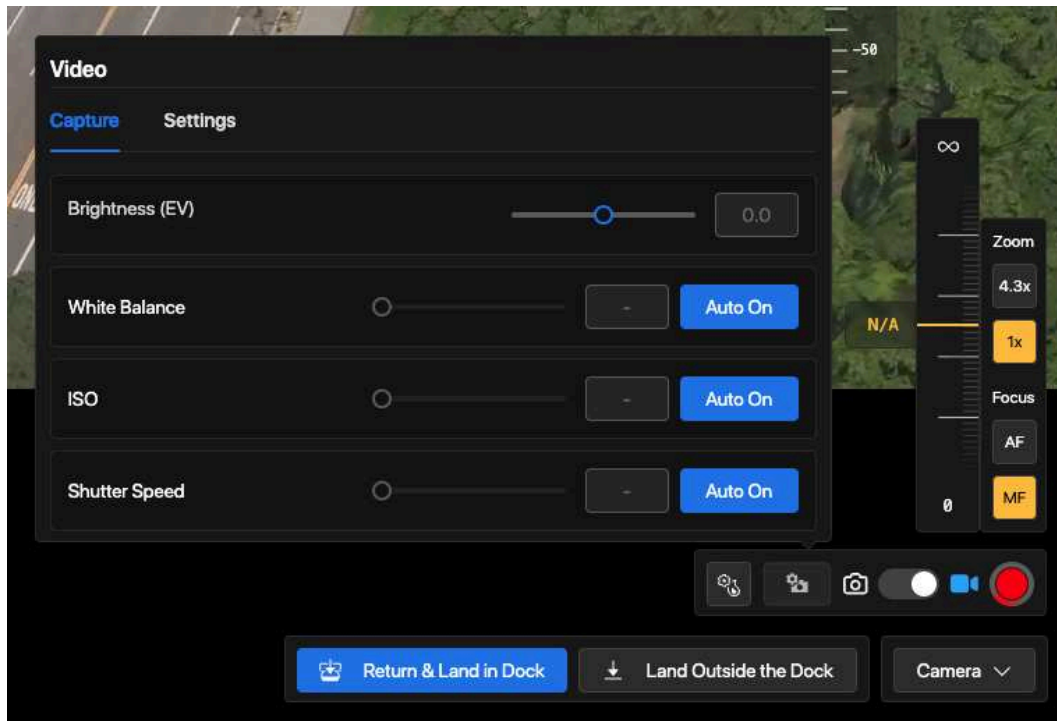
Photo



Video



Video/Photo Capture



Brightness Exposure Value (EV)

Refers to the amount of light the camera allows in. Negative numbers result in darker images (less exposure) while positive numbers result in brighter images (more exposure). Brightness is set to Auto by default. In order to change Brightness (EV), all other values must be set to **Auto On**.

White Balance

Balances the color temperature in the photo. If the whites in the picture are too orange, for example, adding the opposite color (blue) will balance them out. Lower values result in a cooler (blues) image while higher values result in a warmer (yellows) image. Auto (default) means Skydio X10 will automatically adjust the White Balance for its environment.

ISO

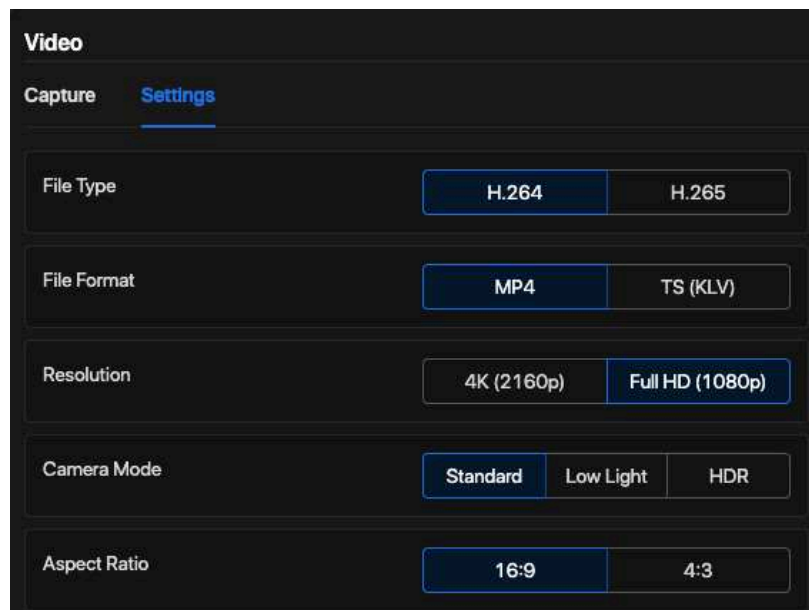
Brightens or darkens the photo. When in low-light conditions, raising the ISO value will brighten the image, however the image may appear grainy. Auto means Skydio X10 will automatically adjust the ISO for its environment.

Shutter

Refers to the length of time a photo is exposed. Slower shutter speed means greater exposure, while faster shutter speed means less exposure. Auto means Skydio X10 will automatically adjust the Shutter speed based on the available light.

To change White Balance, ISO, and Shutter, users should de-select Auto On and use the slider to confirm the value.

Video Settings



File Type

Users can select between H.264 and H.265 compression formats, depending on the organization's preferences for video quality, file size, and playback compatibility.

- **H.264** - Provides manageable file sizes without sacrificing video quality. Recommended for standard video recording, and compatible with most devices and video editing software.
- **H.265** - Ideal for high-quality video capture and maintains efficient compression.

Resolution

Users can select between 4K and Full HD, which refers to the amount of detail in the video. Measured in pixels.

- More pixels result in a high-resolution video
- Fewer pixels result in a lower resolution video

Camera Mode

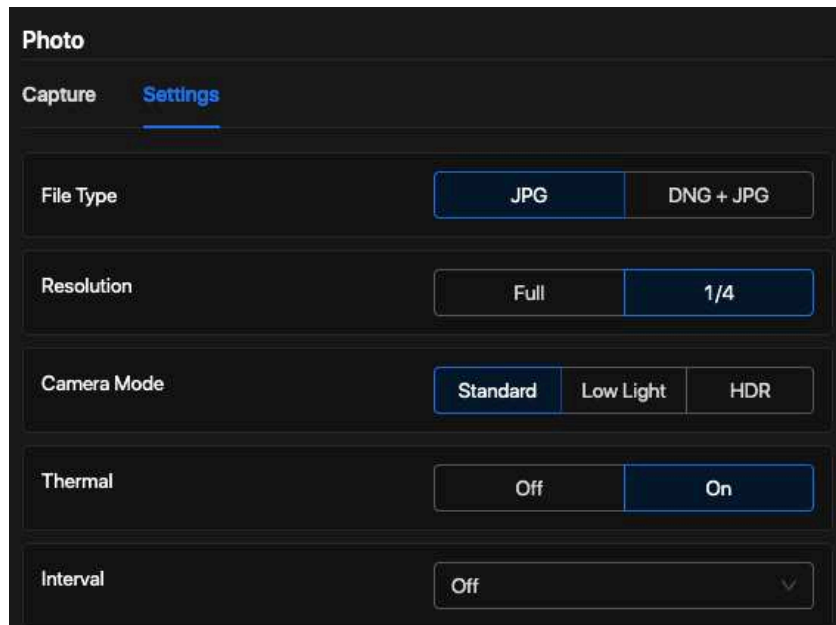
- **Standard** - Designed for typical, everyday lighting conditions. Provides a balanced, standard level of exposure, image processing, and contrast.
- **Low Light** - Designed for environments with dim lighting, such as indoors or evening. Settings are adjusted to capture more light, reduce noise, and improve visibility.
- **HDR** - Designed to capture environments with a wide range of brightness levels.

Aspect Ratio

Sets the shape and framing of the video.

- **16:9** - Provides a wider, broader field of view.
- **4:3** - Provides greater FOV in the vertical axis, resulting in more square-shaped framing. Images are taller, as opposed to wider.

Photo Settings



File Type

Specifies whether Skydio X10 captures JPG images only, or both JPG and DNG files.

- **JPG** - Digital image format containing compressed image data.
- **DNG** - RAW image format file, meaning it is not compressed and retains all original photo data. A DNG file is larger than a JPG file since it stores image data.

Resolution

Refers to the amount of detail in the video. Measured in megapixels.

- **Full** - Images are captured at the highest quality, providing more detail and clarity.
- **1/4** - Images are captured at one-fourth of the full resolution, resulting in smaller file sizes. Best for conserving storage space or transmitting images faster.

Camera Mode

- **Standard** - Designed for typical, everyday lighting conditions. Provides a balanced, standard level of exposure, image processing, and contrast.
- **Low Light** - Designed for environments with dim lighting, such as indoors or evening. Settings are adjusted to capture more light, reduce noise, and improve visibility. Only available with 1/4 Resolution.
- **HDR** - Designed to capture environments with a wide range of brightness levels. Only available with 1/4 Resolution.

Thermal (VT300-Z and VT300-L Only)

- **On** - The drone will capture radiometric JPG images. A Radiometric JPG includes the radiometric data within the photo file.
- **Off** - The drone will **not** capture radiometric JPG images

Interval

When enabled, Skydio X10 will continuously capture photos at the specified time interval until the setting is disabled or the flight ends.

Thermal Palettes

Thermal Palettes can be used to help identify subjects, areas of interest, inspection anomalies, and can help maintain situational awareness when flying at night or in low light conditions, or where the color camera may not be as effective.

Ironbow

Quickly identify varying temperatures and spot thermal anomalies. Ironbow displays a specific range of colors, from blues to reds, which indicate different temperature levels. Warmer objects are presented in lighter colors and colder objects in darker colors.

Rainbow

Uses the colors of a traditional rainbow to distinguish between subtle variations in temperature levels. Rainbow covers a broader range of colors without emphasizing specific temperature ranges.

White Hot

Provides a clear visualization of temperature variations without a variety of colors. Brighter, whiter colors indicate warmer temperatures while darker colors represent cooler temperatures.

Black Hot

Displays the inverse of a White Hot palette. Brighter, white colors indicate cooler temperatures while darker, black colors represent warmer temperatures.

CAUTION

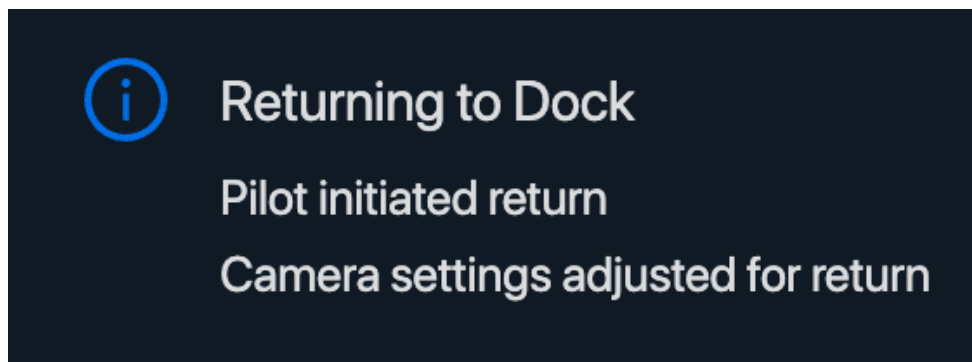
Risk of permanent sensor damage.

The thermal camera (Sensor Package) should not be pointed directly at the sun, or other high intensity energy sources for extended periods. Prolonged exposure may cause burn-in on the thermal sensor or irreversible damage to the thermal camera.

Remote Flight Deck: Return and Land

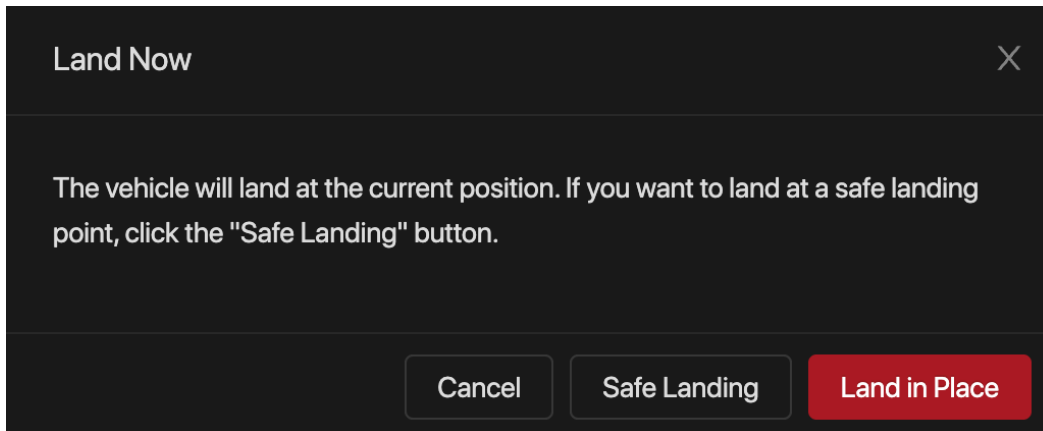
Return and Land in Dock (Pilot Initiated)

- When Remote Pilots select **Return & Land** in Dock, the drone will ascend or descend to the Return Height and automatically return to the Dock and land using the behaviors set in Settings > Return.
- When the drone approaches the Dock, the camera settings may adjust to optimize Dock detection and landing.
- If the drone is unable to land in the Dock on the first attempt (e.g., due to environmental factors such as high winds) it will make up to 10 landing attempts. After that it will attempt to automatically land at the Safe Landing Point.
- If landing in the Dock becomes unachievable, the drone will land at the Safe Landing Point or the pilot can hover over a safe area to land and select Land in Place.
- The Remote Pilot must notify all people in the Dock operational area that the drone is returning.



Land in Place (Pilot Initiated)

- When Remote Pilots select Land in Place, they will be able to select between Landing in Place or at the Safe Landing Point
- Commanding X10 to **Land in Place** will result in X10 descending without any lateral movement. The pilot can nudge the drone using the WASD keys on the keyboard to adjust the drone as it lands.
- When Landing in Place, the drone will travel straight down and land in place without any lateral movement.



Safe Landing Point (Pilot Initiated)

- When Remote Pilots Select Land in Place, they will be able to select between Landing in Place or at the Safe Landing Point
- Commanding X10 to Land at the **Safe Landing Point** will result in X10 ascending or descending to the specified Return Height and returning to the Safe Landing Point and automatically landing. The pilot can nudge the drone using the WASD keys on the keyboard to adjust the drone as it lands.
- If for any reason the drone cannot land at the Safe Landing Point, it will perform a Smart Landing.

Safe Landing Point (Automatic)

- Safe Landing Points are preset landing areas that can be added to your Site Zone. It will apply to all Docks in that Site. Visit *Initialization > Safe Landing Points* for more information on setting up a Safe Landing Point.
- In situations where the drone cannot land in the Dock due to some off-nominal condition (e.g., power or network loss of the Dock), the drone will autonomously land in a nearby Safe Landing Point instead. It is therefore recommended to place a Safe Landing Point near all Dock locations.

Smart Landing (Automatic)

- If the drone is unable to Land in the Dock or at a Safe Landing Point, it will attempt a Smart Landing.
- In the final stages of landing, X10 will have obstacle avoidance disabled however, if obstacle avoidance was enabled prior to landing then the drone will still attempt to nudge itself over a flat area and avoid obstacles during the final stages of descent. If obstacle avoidance was disabled prior to landing then the drone will not avoid obstructions, ledges, uneven terrain, etc. during the final stages of descent therefore it's important to navigate X10 to be over a

flat surface if you are landing outside of the Dock with obstacle avoidance disabled.

Remote Flight Deck: Actions

View/Hide Controls (`)

This menu shows/hides the Keyboard and Mouse controls. The pilot can also use the (`) button to view/hide this menu.

Configure Obstacle Avoidance Margin (R)

This menu allows pilots to Configure the Obstacle Avoidance Margin. When flying, the drone will avoid obstacles following the selected distance setting (Standard, Close, Minimal, Disabled). Pilots can also use the (R) button on the keyboard to cycle between the Standard and Close Obstacle Avoidance margins.

- **Standard** - The drone will stay about 26 inches away from obstacles.
- **Close** - Increased risk of collision. The drone will stay about 11 inches away from obstacles.
- **Minimal** - High risk of collision. The drone will stay about 4 inches away from obstacles.
- **Disabled** - No obstacle avoidance. The drone will not avoid obstacles.

View/Hide Crosshair Info

When selected, this will show information for the Crosshair Ground Point including:

- Address (copy to clipboard)
- Coordinates (copy to clipboard)
- Range

Enter Pointer Lock (C)

Pointer Lock uses the mouse as the gimbal control. When engaged, movement of the mouse will correspond directly to movement of the gimbal pitch and yaw in the video feed. Pointer Lock can be engaged/disengaged by selecting (C) on the keyboard. Pointer lock can also be disengaged by right-clicking on the video feed.

Technical Specifications

Primary hardware components of the Dock for X10 Flight System include:

- (1) Skydio X10 Drone (equipped with the VT-300Z, VT300-L, or V-100L Sensor Packages)
- (1) Skydio Dock for X10
- (1) Skydio Connect External Radio

Additional hardware may include:

- Attachments (Spotlight, Speaker, Parachute (EAP), NightSense Visible/IR Light)

X10 Drone

| | |
|--|--|
| Dimensions (unfolded, with propellers) | 31.1" x 25.6" x 5.7" / 79.0 cm x 65.0 cm x 14.5 cm. |
| Dimensions (folded, without battery) | 13.8" x 6.5" x 4.7" / 35.05 cm x 16.51 cm x 11.94 cm |
| Weight (incl. batteries) | Connect SL: 4.65 lbs / 2.11 kg Connect SL + 5G: 4.75 lbs / 2.16 kg |
| Max Takeoff Weight | 5.49 lbs / 2.49 kg |
| Operation Frequency | Connect SL: 2400-2483.5MHz 5150-5850MHz Cellular 5G: 600MHz-4400MHz |
| Transmitter Power (EIRP) | Connect SL: 34.3dBmi (2.4GHZ) Connect SL: 33.7dBmi (5GHZ) Connect 5G: 20dBmi |
| Hovering Accuracy (windless or breezy) | VIO: ± 10cm GNSS: ± 1m |
| Max Angular Velocity | Yaw: 100° deg/s Roll / Pitch: 225° deg/s |
| Max Tilt Angle | 40° |
| Max Ascent/Descent Speed | Ascent: 13.4 mph / 6 m/s Descent: 9.0 mph / 4 m/s |
| Max Non-Vertical Descent Speed* | 13.4 mph / 6 m/s |
| Max Horizontal Speed* | 45 mph / 20 m/s |
| Max Horizontal Speed with Obstacle Avoidance* | 36 mph / 16 m/s |
| Max Horizontal Speed with NightSense enabled* | 18 mph / 8 m/s |

| | |
|--|--|
| Max Service Ceiling Above Sea Level (without other payload) | 15,000' / 4,572m density altitude |
| Max Gust Handling | At or under 28 mph (12.8 m/s) |
| Max Hover Time | 35 minutes |
| Max Flight Time** | 40 minutes |
| Processors | NVIDIA Jetson Orin SoC Qualcomm QRB5165 SoC |
| Ingress Protection Rating | IP55 |
| GNSS | GPS + Galileo + GLONASS + BeiDou |
| Operational Temperature Range | -4°F to 113°F / -20°C to +45°C |
| Wireless Range (no interference, line of sight operation) | Urban: 1-2 km (0.6-1.2 miles) Suburban: 2-6 km (1.2-3.7 miles) Rural: 6-12 km (3.7-7.5 miles) Max: 12 km (7.5 miles) Connect 5G: Unlimited (wherever cellular coverage is available) |
| Wireless Networking (media offload) | Connect SL: WiFi6 Connect 5G: Cellular LTE/5G |
| Obstacle Avoidance Coverage | True 360° |

** Speed under ideal flight conditions such as no wind, no precipitation, no attachments, cooler temperatures, and flown near sea level or areas with high air density.*

***Conducted under ideal lab conditions.*

VT300-Z Sensor Package

| | |
|--------------------------------|---|
| Angular Vibration Range | ±0.01° |
| User Controllable Range | ±90° pitch |
| Mechanical Range | ±140° pitch, ±90° yaw, +75° to -230° roll |

VT300-L and V100-L Sensor Package

| | |
|--------------------------------|---|
| Angular Vibration Range | ±0.01° |
| User Controllable Range | ±90° pitch |
| Mechanical Range | ±140° pitch, ±90° yaw, +75° to -230° roll |
| Flashlight Illumination | 22 lux at 3 meters |

Narrow Camera (VT300-Z, VT300-L, and V100-L)

| | |
|---------------------------------|--------------------------|
| Sensor | 1/1.7" 64MP CMOS |
| Diagonal Field of View | 50° |
| Focal Length | 10 mm (46 mm equivalent) |
| Aperture | f/1.8 |
| Focus | hybrid PDAF, 1 m to ∞ |
| Exposure Compensation | ±3 |
| Electronic Shutter Speed | 1/30 to 1/8000 |
| ISO Range | 100 to 16000 |
| Max Video Resolution | 3840 x 2880 |

| | |
|-----------------------|-------------|
| Max Photo Size | 9248 x 6944 |
|-----------------------|-------------|

Telephoto Camera (VT300-Z only)

| | |
|---------------------------------|---------------------------|
| Sensor | 0.5" 48MP CMOS |
| Diagonal Field of View | 13° |
| Focal Length | 35 mm (190 mm equivalent) |
| Aperture | f/2.2 |
| Focus | hybrid PDAF, 5 m to ∞ |
| Exposure Compensation | ±3 |
| Electronic Shutter Speed | 1/30 to 1/8000 |
| ISO Range | 100 to 16000 |
| Max Video Resolution | 3840 x 2880 |
| Max Photo Size | 8000 x 6000 |

Wide Camera (VT300-L and V100-L only)

| | |
|---------------------------------|----------------------------|
| Sensor | 1" 50.3MP CMOS |
| Diagonal Field of View | 93° |
| Focal Length | 8 mm (20 mm equivalent) |
| Aperture | f/1.95 |
| Focus | 100% focus pixel, 1 m to ∞ |
| Exposure Compensation | ±3 |
| Electronic Shutter Speed | 1/30 to 1/8000 |

| | |
|-----------------------------|--------------|
| ISO Range | 100 to 16000 |
| Max Video Resolution | 3840 x 2880 |
| Max Photo Size | 8192 x 6144 |

Thermal Camera (VT300-Z and VT300-L only)

| | |
|--|---|
| Thermal Imager | Flir Boson+ Uncooled VOx Microbolometer |
| Diagonal Field of View | 41° |
| Focal Length | 13.6 mm (60 mm equivalent) |
| Aperture | f/1.0 |
| Focus | 5 m to ∞ |
| Thermal Sensitivity | <30mK NEDT |
| Infrared Temperature Measurement Accuracy | larger of ± 5°C or 5% |
| Image Processing | Adreno 650 GPU accelerated ISP pipeline |
| Max Video Resolution | 640 x 512 |
| Photo Size | 640 x 512 |
| Photo Format | JPEG, RJPEG |
| Pixel Pitch | 12 um |
| Palette | White hot, black hot, ironbow, rainbow |

Sensor Package Light

| | |
|---------------------|-------------|
| Illumination | 1000 lumens |
|---------------------|-------------|

Vision Systems/Navigation Cameras

| | |
|-------------------------------|---|
| Configuration | 6x cameras in trinocular configuration top and bottom |
| Sensor | Samsung 1/2.8" 32MP color CMOS |
| Light Sensitivity | Visible Light |
| Aperture | f/1.8 |
| Diagonal Field of View | 200° |
| Obstacle Sensing Range | 65' 7.4" / 20 meters |
| Environment Coverage | True 360° |

Skydio Connect

| | |
|---------------------------------|--|
| Operating Frequency | Connect SL: 2400-2483.5MHz 5150-5850MHz Connect 5G: 600MHz-4400MHz |
| Transmitter Power (EIRP) | Connect SL: 34.7dBmi (2.4GHz) Connect SL: 35.9dBmi (5GHZ) Connect 5G: 20dBmi |
| Antenna Configuration | Connect SL: 2Tx, 4Rx |

System Security

| | |
|------------------------------|--|
| Wireless Encryption | Connect SL: AES-256 Connect 5G: AES-128 |
| NDAA Compliance | NDAA Compliant |
| Root of Trust | HSM protected keys |
| System Integrity | Secure boot |
| Secure Update | AES-256 encrypted, signed, & verified |
| Internal Disk Storage | Encrypted |
| SD Cards | Unencrypted |
| Pairing | Secure wired pairing |

Dock for X10

| | |
|--|---|
| Ingress Protection Rating | IPX6 for water ingress when Dock is closed IPX5 for water ingress when Dock is open |
| Launch / Land Winds | Up to 27 mph (12 m/s) |
| Operational Temperature | -4°F to 122°F (-20°C to 50°C) |
| Standby Temperature | -40°F to 140°F (-40°C to 60°C) |
| Dock Dimensions | 34.1" L x 37.7" W x 55.5" H (with base) |
| Dock Weight (with stand) | 232 lbs (105.2 kg) |
| Battery Charge Time | Approximately 15% to 95% within 30 minutes at 77°F (25°C) |
| Maximum Charge Time (When ambient Temperature is 95°F to 122°F or 35°C to 50°C) | 75 minutes including battery cooling |
| Rain and Snow Limitations | Operating: 0.25"/hr (light to moderate) Standby: 4"/hr (Heavy) |
| Corrosion Resistance | Designed to operate in humid environments, outside of direct saltwater splash zone |
| Input/Output Data | 3x POE RJ45 (30W, 48V), 2x USB3.0 (5W, 5V) |
| Input Power Voltage | 100-240V (200-240V required below 0 °C). 50-60hz |
| Input Power Load / Sizing | 2200W at peak load 20A breaker for 208-240V operations below 0 °C 15A breaker for 110V (required to be above 0 °C for entire operation) |
| Onboard Storage | 512 GB |

| | |
|---|---|
| Dock Standby Wind Limitation | Bolted to permanent structure*: Up to 160 mph / 257 kph Non-Bolted: 64 kmh / 40MPH *Bolting guidance for permanent mounting can be found in the Dock for X10 Technical Specifications and Installation Requirements. With Dock Feet + Utility Mat: ~80 mph / 128.7 kph |
| | WARNING |
| | Risk of damage or serious injury in high winds. To avoid potential damage to the drone, Dock for X10, or other parts of the flight system, the Dock should not be opened in winds greater than 40 mph. |
| Dock Operational Wind Limitation | Without Dock Feet (Un-anchored Dock): ~40 mph (64 kph) |

Skydio Connect External Radio

| | |
|--------------------------------|---|
| Dimensions | 240 x 120 x 65 mm / 9.5 x 4.75 x 2.6 in |
| Weight | 1.2 kg / 2.65 lbs |
| Power | Nominal: 11-13W USB-C: 5V3A, 9V3A, 12V3A, 15V3A, 20V3A PoE: 44-57V (IEEE 802.3af compliant) |
| Input/Output | 1x Ethernet, 1x USB-C 3.0 |
| Wind Resistance | Up to 160 kmh / 100 mph |
| Operational Temperature | -20° to 50°C / -4° to 122°F |
| Storage Temperature | -40° to 80°C / -40* to 176°F |
| Ingress Protection | IP 67 |

| | |
|---|--|
| Operational Ranges (omnidirectional) | Urban: 1-2 km Suburban: 2-6 km Rural: 6-12 km Max: 6-12 km |
| Operating Frequency | Connect SL: 2400-2483.5 MHz & 5150-5850 MHz Connect MH: 1625-1725 MHz, 1790-1850 MHz, 2040-2110 MHz, 2200-2300 MHz, 2300-2390 MHz, 2400-2500MHz |
| Service Life | 5 years of continual service with Dock 3 years when vehicle-mounted 2 years when human-carried |
| Corrosion Resistance | Designed to operate in humid environments, outside of direct saltwater splash zone |
| ADS-B In | Included |
| GNSS | GPS + Galileo + GLONASS + BeiDou |

Spotlight Attachment

| | |
|---|--------------------------------|
| Dimensions | 1.9" x 2.2" x 2.2" |
| Weight | 115.21 g / 0.25 lbs |
| Attachment location | Left or right attachment bay |
| Illumination | 5500 lumens |
| Max distance to recognize a person | 500 ft (152 m) |
| Lighting angle | 13° FWHM / 30° FWTM |
| Max input power | 50 W |
| Ingress protection rating | IP55 |
| Operating temperature | -4°F to 113°F (-20°C to 45°C) |
| Storage temperature | -22°F to 176°F (-30°C to 80°C) |

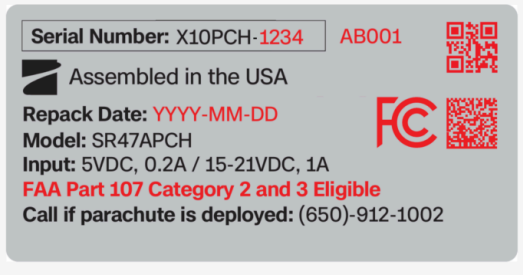
Speaker Attachment

| | |
|---|--------------------------------|
| Dimensions | 1.9" x 2.8" x 2.5" |
| Weight | 100 g / 0.22 lbs |
| Attachment location | Left or right attachment bay |
| Max volume | ~105 dB at 1m |
| Max distance to recognize a person | 150 m |
| Effective Broadcast Distance | 150 m |
| Max Output Power | 25 W |
| Ingress Protection Rating | IP55 |
| Operating Temperature | -4°F to 113°F (-20°C to 45°C) |
| Storage Temperature | -22°F to 176°F (-30°C to 80°C) |

NightSense Attachment

| | Infrared (IR) | Visible |
|---------------------------------------|------------------------------|------------------------------|
| Dimensions | 2.9" x 2.6" x 1" | 2.9" x 2.6" x 1" |
| Weight | 55 g / 0.12 lb | 55 g / 0.12 lb |
| Attachment location | Top and bottom | Top and bottom |
| Illumination | IR light | Visible light |
| Max obstacle avoidance speed | 18 mph (8 m/s) | 18 mph (8 m/s) |
| Max input power per attachment | 46.5 W | 45 W |
| Operating temperature | -4° to 95°F (-20° to 35°C) | -4° to 95°F (-20° to 35°C) |
| Storage temperature | -40° to 176°F (-40° to 80°C) | -40° to 176°F (-40° to 80°C) |

Parachute Attachment

| | |
|---|---|
| Dimensions | 83.5mm x 142.5mm x 80mm |
| Weight | 155g / 0.36lbs |
| Attachment Location | Left side |
| FAA Certification: FAR Part 107 Subpart D | Category 2 and 3 per Operating Limitations |
| Descent Rate | 8.9 mph |
| Reuse Method | Must be returned to Skydio for a repack after one (1) year |
| Deployment Technology | Nitrogen Cartridge |
| Deployment Trigger | Manual and/or autonomous |
| Product Label |  <p>Serial Number: X10PCH-1234 AB001</p> <p>Assembled in the USA</p> <p>Repack Date: YYYY-MM-DD</p> <p>Model: SR47APCH</p> <p>Input: 5VDC, 0.2A / 15-21VDC, 1A</p> <p>FAA Part 107 Category 2 and 3 Eligible</p> <p>Call if parachute is deployed: (650)-912-1002</p> |
| Maximum Takeoff Weight | 5.73 lbs / 2.6 kg |
| Attachment combinations supported under Maximum Takeoff Weight | <ul style="list-style-type: none"> • Skydio X10 + Parachute + NightSense (both top and bottom attachments) • Skydio X10 + Parachute + Spotlight • Skydio X10 + Parachute + Speaker • Skydio X10 + Parachute + RTK/PPK • Parachute + NightSense + Spotlight • Parachute + NightSense + Speaker |
| Wind Operational Limit, at Sea Level | <p>Transient flight over people (Cat 3): 13.4 mph (6 m/s)</p> <p>Sustained flight over people (Cat 2): 8.9 mph (4 m/s)</p> |
| Wind Operational Limit, Altitude-Adjusted | At 15,000ft density altitude: |

| | |
|--|--|
| | <p>Transient (Cat 3): 11.4 mph (5.1m/s) Sustained (Cat 2): 5.4 mph (2.4m/s)</p> <p>Refer to the chart below for limits across the full density altitude range (0–15,000 ft).</p> |
| Max Gust Handling | 28 mph / 12.8 m/s |
| Humidity Operational Limit | 86°F (30°C), 95% Relative Humidity |
| Minimum Deployment Altitude | 100 ft (30.5 m) AGL / Above Ground Level |
| Minimum Deployment Overhead Clearance | 15 ft (4.6 m) |
| Max Service Ceiling Above Sea Level | Refer to charts below |
| Operating Temperature | -20°C to 45°C |
| Storage Temperature | -40°C to 80°C |
| Ingress Protection Rating | IP55 (light to moderate precipitation) |

Fusion+ Attachment

| | |
|----------------------------------|--|
| Weight | 0.19 lbs (85 g) |
| Attachment location | Left or right attachment bay |
| Antenna Configuration | 2Tx, 4Rx |
| Operating Frequency | 600 MHz–4400 MHz |
| Operating Temperature | -20°C to 45°C ambient in the sun in flight |
| Storage Temperature | -40°F (-40°C) and 176°F (80°C) |
| Ingress Protection Rating | IP55 |
| Certified Carriers | Coming soon |

Flight System Initialization

Objectives

Flight system initialization ensures that all components of the Skydio Dock for X10 Flight System are properly configured and functional for safe and effective flight.

Initialization includes all activities that prepare the remote sUAS for a pre-planned mission, or live flight within a pre-determined geographic area. This includes powering on the flight system, performing system diagnostics, conducting any relevant repairs or maintenance, preparing mission-specific information and mapping waypoints, and ensuring all components are ready for operation.

WARNING

Risk of serious injury or system damage.

Flight system use carries inherent risk; any operational use external to the guidelines described in this manual may incur undue operational risk, serious injury, or damage to the flight system, and violate the terms of Skydio's Limited Warranty, Skydio Care, or other terms and conditions.

This section outlines the following key objectives:

1. Compliance and Regulations
2. Flight System Setup and Preparation
3. Data Management
4. Network Configuration
5. Claiming and Linking Devices
6. Creating Groups
7. Registering Users
8. Assigning Licenses
9. Configuring Default Flight Settings
10. Media Management
11. Integration Management
12. Configuring Alerts
13. Developer Tools

Compliance and Regulations

Remote Identification (Remote ID)

The Federal Aviation Administration (FAA) requires all drone operators in the United States to broadcast Remote ID information, unless flying in an FAA-recognized identification area. This includes broadcasting the location of the control station (i.e., the location of the pilot).

Skydio Cloud does not use the Remote Pilot IP address or browser location settings to share operating location with the FAA. Instead, the Skydio Enterprise mobile app is used to share the remote operator location from a mobile device.

Sharing Remote Operator Location using the Skydio Enterprise App

Remote Pilots can take the following steps:

1. Download the Skydio Enterprise app from Google Play or the App Store onto a mobile device
2. **Log in to the Skydio Enterprise app** using the same email address that is used in Skydio Cloud
3. When entering Remote Flight Deck, Remote Pilots will automatically be prompted to approve Remote ID
4. Approve Remote ID

More information about Remote ID can be found at www.skydio.com/regulatory.

Remote ID for Single Operations Center

If all Remote Pilots in an organization operate from a single, physical operations center, Organization Admins have the option to set a fixed location in Skydio Cloud. This location is then included in the Remote ID message that the drone broadcasts during flight.

If **Single Operations Center toggle** is enabled, Remote Pilots will not need to use the Skydio Enterprise app to share their location.

NOTE: *The Single Operations Center toggle is only accessible to an Organization Admin.*

Organization Admins are responsible for:

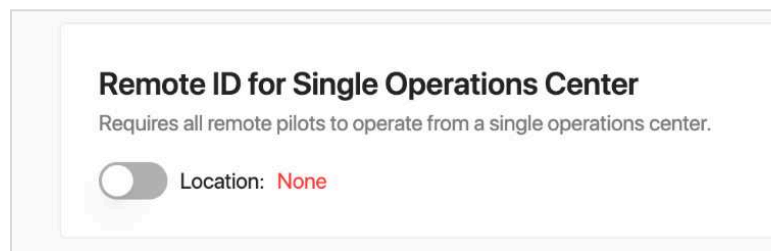
- Enabling this setting if required
- Ensuring access permissions are limited to Organizational Administrators
- Entering and saving the correct location for the organization's center of operations
- Verifying that the selected location is defined accurately, in accordance with FAA Remote ID compliance (14 CFR Part 89)
- Ensuring that all Remote Pilots understand they must operate from this designated location.

The address entered will be associated with the Remote ID broadcasts and is necessary for compliance with Federal Regulation 14 CFR Part 89.

Setting the Single Operations Center Address

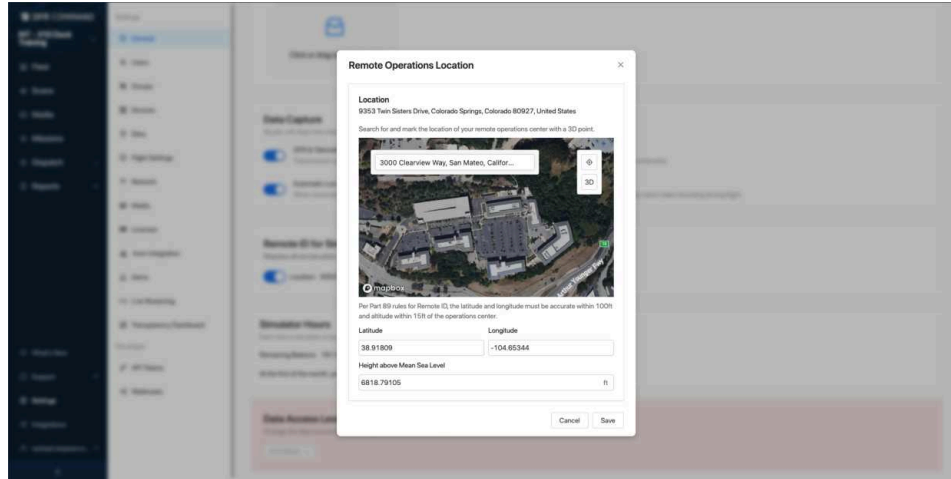
To set the Single Operations Center Address, Organization Admins should follow the steps below:

Step 1 - Enable the Remote ID for Single Operations Center toggle



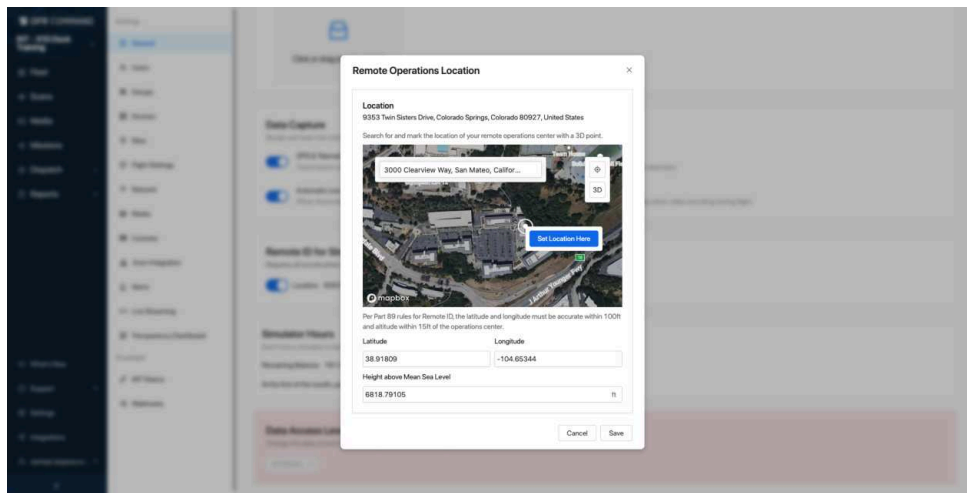
Step 2 - Select Edit

Step 3 - Use the search bar or Map View to locate the address of the operations center



Step 4 - Click on the location of the operations center to set the pin

Step 5 - Select Set Location Here



Step 6 - Save

Remote ID for Single Operations Center

Requires all remote pilots to operate from a single operations center.

Location: 3025 Clearview Way, San Mateo, California 94402, United States [Edit](#)

Understanding FAA Regulations for BVLOS / Flying Over People

Organizations are responsible for ensuring that operations are in accordance with FAA regulations, BVLOS Waivers, Remote ID requirements, and the terms of any applicable waivers.

Throughout this manual, users will find reminders to follow their organization's standard operating procedures and FAA regulations, including:

- Notifying individuals within or near the operational area before a flight
- Maintaining awareness of Site Zone boundaries and Safe Landing Points
- Operating under approved conditions for BVLOS or flights over people

ADS-B

ADS-B traffic awareness is required for Beyond Visual Line of Sight (BVLOS) operations. This capability supports waiver compliance by providing both visual and audible alerts when aircraft broadcasting ADS-B are nearby, helping remote pilots avoid conflicts and maintain a safe distance.

Users should refer to the **Preflight** and **Flight Operations** section for details on how to use ADS-B before and during flight

Speaker Attachment: Compliance with Laws

The use of the X10 Speaker attachment on Skydio X10 to broadcast or record audio is subject to various international, federal, state, and local laws and regulations regarding privacy and consent. It is the responsibility of the Remote Pilot and their organization to ensure compliance with all applicable laws and regulations when using this product to record and/or broadcast audio.

When Recording Audio: Consent Required

In many states and countries, it is illegal to record conversations without the consent of all parties. Some states and countries allow recording with the consent of just one party. Users should always check their local laws before recording.

When Broadcasting Audio: Public vs. Private

Broadcasting in public may be subject to fewer restrictions than recording; however, users should always avoid invading privacy or causing harassment. In private areas,

explicit permission may be required before broadcasting. Users should always check local laws before initiating any broadcast.

Disclaimer

Failure to comply with these laws and regulations may result in civil or criminal penalties, including fines or imprisonment. Check for relevant local laws and regulations prior to use. Skydio is not responsible for any misuse of this product or any legal consequences resulting from the improper use of the broadcasting functions.

Flight System Setup and Preparation

Adding Wireless Networks

For detailed network requirements, users should refer to the *Technical Specifications* of the *Flight System Overview* section.

To add a wireless network, users can take the following steps:

Step 1 - Select Settings

Step 2 - Select Network

Step 3 - Select Add Network

Step 4 - Input SSID

The SSID is the name of the wireless network. Enter the name and password, then select **Add**.

Repeat Steps 1-4 to add additional wireless networks, allowing Skydio drones in the fleet to leverage multiple networks for connectivity.

Step 5 - Organize priority networks

Drag and drop to reorder. Networks are ordered by priority, with the top network connecting first.

Updating the Flight System

For detailed information about updating the Dock for X10 Flight System, please refer to the Dock for X10 Maintenance Manual.

Devices will need to be updated in the following order:

1. Drone
2. External Radio
3. Dock

Accessing SD Cards

Users should open the panel on the side of Skydio X10 to access the **Logs** and **Media** cards.

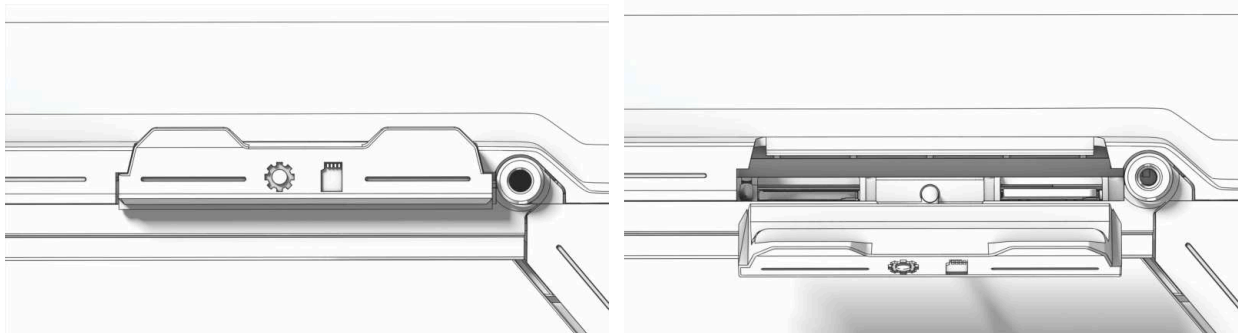
- UHS Speed Class 3 (or faster)
- Minimum 256 GB

Logs card

Supports software updates, scan data and records flight logs

Media card

Stores media captured during flight



| | |
|--------------------|--|
| Remove card | Users should gently press inward to release the card |
| Insert card | Users should insert the card into the slot with the label facing up until it clicks into place |

NOTE: Accessing the SD card directly should be done only when necessary. In most cases, media and logs should be retrieved through Skydio Cloud. Frequent removal or handling of the SD card can lead to wear or damage over time and interrupt the evidentiary chain of custody. See the Flight System Overview for a labeled diagram of Skydio X10 and the SD card locations.

Installing Attachments

There are four USB-C ports, three on the top and one on the bottom that allow users to connect a variety of attachments for a **maximum payload of 12 oz.**

More installation instructions can be found in the [getting started guides](#).

Installing SIM cards (Bring Your Own Plan)

More information about bringing your own cellular plan can be found in our Support article: [Skydio X10 Bring Your Own Cellular Plan](#).

To install a SIM card users can follow these written instructions below or watch the video [here](#).

Step 1 - Remove the battery

Step 2 - Access the SIM card slot (located in the battery bay, toward the Sensor Package)

Step 3 - Push forward and lift up the SIM card door (users may feel some resistance)

Step 4 - Gently push the slider up into the unlocked position

Step 5 - Gently lift the SIM card cover

Step 6 - Insert the SIM card

Step 7 - Lower the SIM card cover and slide it down into the locked position

Step 8 - Lower the outer SIM card door and press it down into place

Uninstalling a Sensor Package

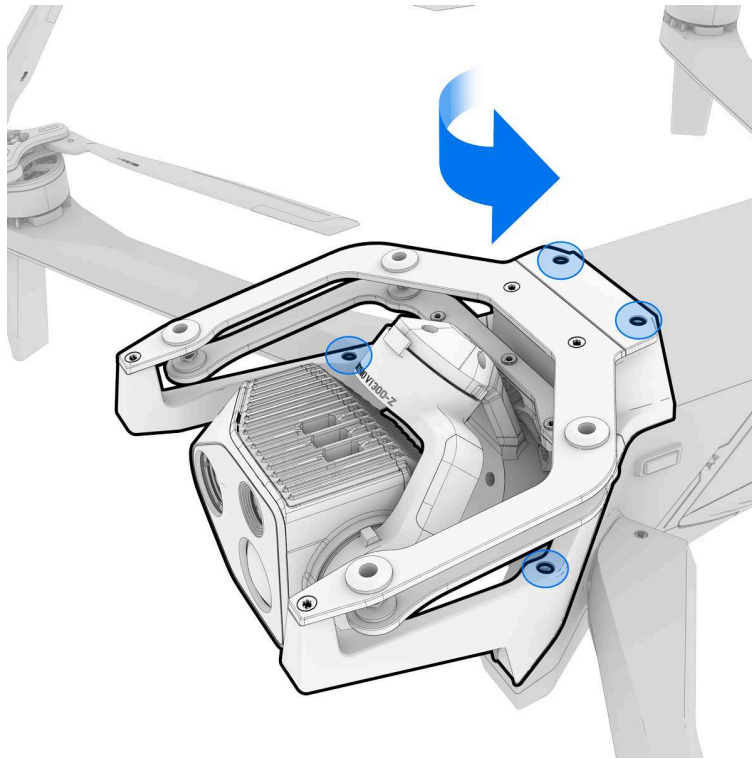
Skydio X10 is capable of flying with different Sensor Packages to suit the mission at hand. The drone will ship with the specified Sensor Package installed, however if users wish to install a different Sensor Package to suit their mission they can follow the instructions below or watch the video [here](#).

Step 1 - Remove the Sensor Package lock

Step 2 - Remove the X10 battery

Step 3 - Loosen sensor package screws. Using the tool provided, loosen the 4 screws that are used to secure the sensor package to the

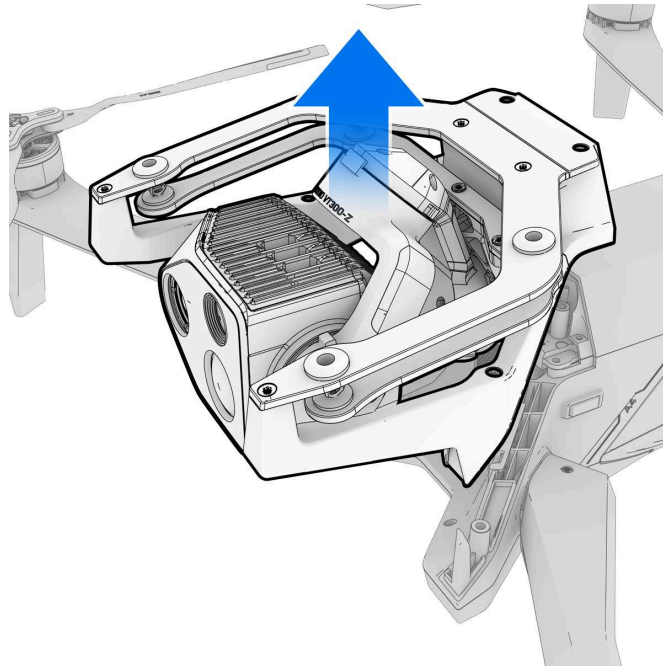
airframe.



NOTE: These screws will remain attached to the Sensor Package frame.

Step 4 - Remove the Sensor Package

- Hold the edges of the sensor package frame, do not lift on the sensor package itself
- Gently rock side to side while lifting up. This will help the sensor package disengage from both connection points on the airframe.
- Do not pull off at an angle, do not use a peeling motion, lift straight up while gently rocking the sensor package until it is completely off the guide posts.



Step 5 - Reattach the sensor package lock for safe storage.

Installing a Sensor Package

If users wish to install a different Sensor Package to suit their mission they can follow the instructions below or watch the video [here](#) to install a new Sensor Package.

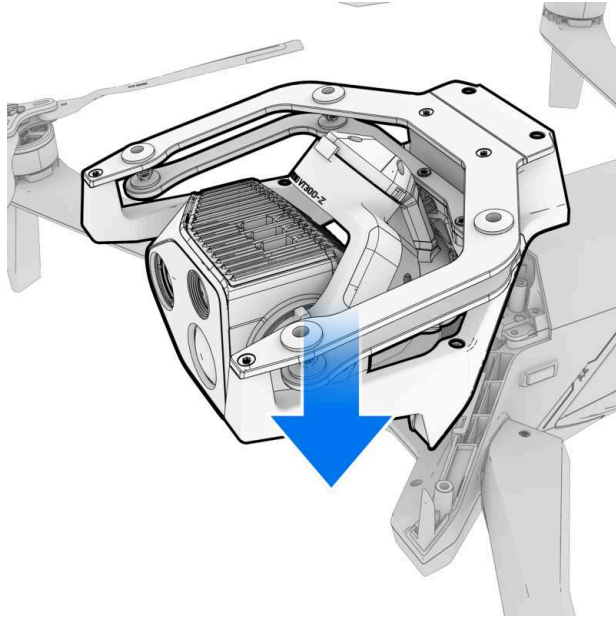
Step 1 - Remove the Sensor Package lock. If the Sensor Package has any rubber covers, remove those as well.

Step 2 - Locate the holes on the bottom of the bracket.

- These holes line up with the guide posts on the airframe.
- When aligned, these posts help guide the connector pins into place.

Step 3 - Install Sensor Package

- Install the Sensor Package straight down vertically with the posts on the airframe aligned with the holes on the sensor package
- Remember to grab the top plate by the edges and not to handle the Sensor Package itself
- Insert the Sensor Package straight down. There is no need to rock side to side like what is done when uninstalling.

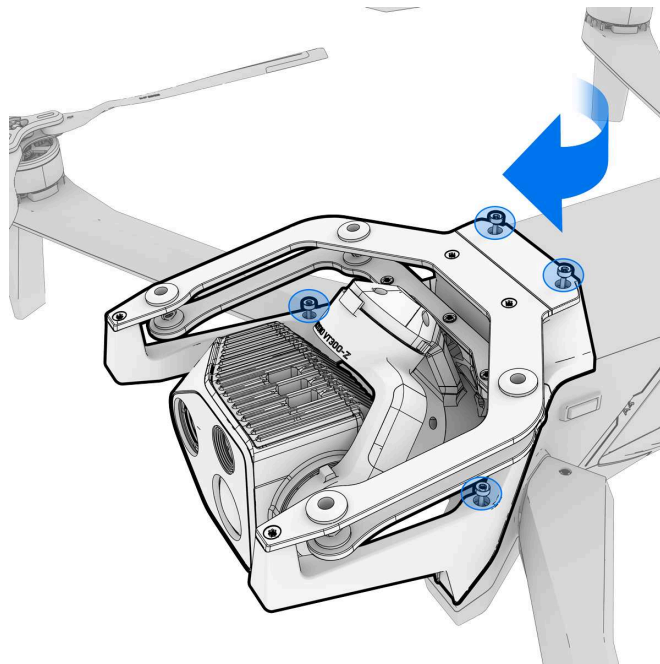


Step 4 - Press Sensor Package into place

- Firmly press straight down between the two screws on the top plate until locked into place.

Step 5 - Tighten Sensor Package screws

- Use the provided torque driver to tighten all four screws
- The torque driver will automatically click when it reaches the appropriate torque to prevent overtightening



Step 6 - Insert the X10 battery and power on the drone

Step 7 - Power on the controller and wait for the devices to connect

- The drone will boot up and calibrate with the new sensor package.

Data Management

Once Data Capture settings are configured, the flight system will automatically upload telemetry and other flight data after landing.

GPS and Telemetry

To set GPS and Telemetry, users can follow these steps:

Step 1 - Select Settings > General

Step 2 - Enable Data Capture

Within **Data Capture**, enable the toggle called **GPS & Telemetry**. When enabled, it allows for the transmission and automatic upload of on-drone data collected during flight. This includes geolocation and performance telemetry.

NOTE: *If GPS & Telemetry are toggled off, the flight path and other telemetry data will not display on the flight screen.*

Low Resolution Video (LRV) Recording

NOTE: *LRV should not be disabled unless absolutely necessary. These video files are critical for troubleshooting any issues during flight. Disabling LRV will limit Skydio's ability to investigate flight anomalies.*

NOTE: *The ability to enable or disable Automatic Low Resolution Video Recording is only available with DFR Command.*

Organization Admins have the ability to disable Automatic Low Resolution Video to ensure that capturing video aligns with department policies and evidentiary procedures.

Configuring a Transparency Dashboard

The **Transparency Dashboard** allows users to share selected drone mission data through a publicly accessible, intuitive dashboard.

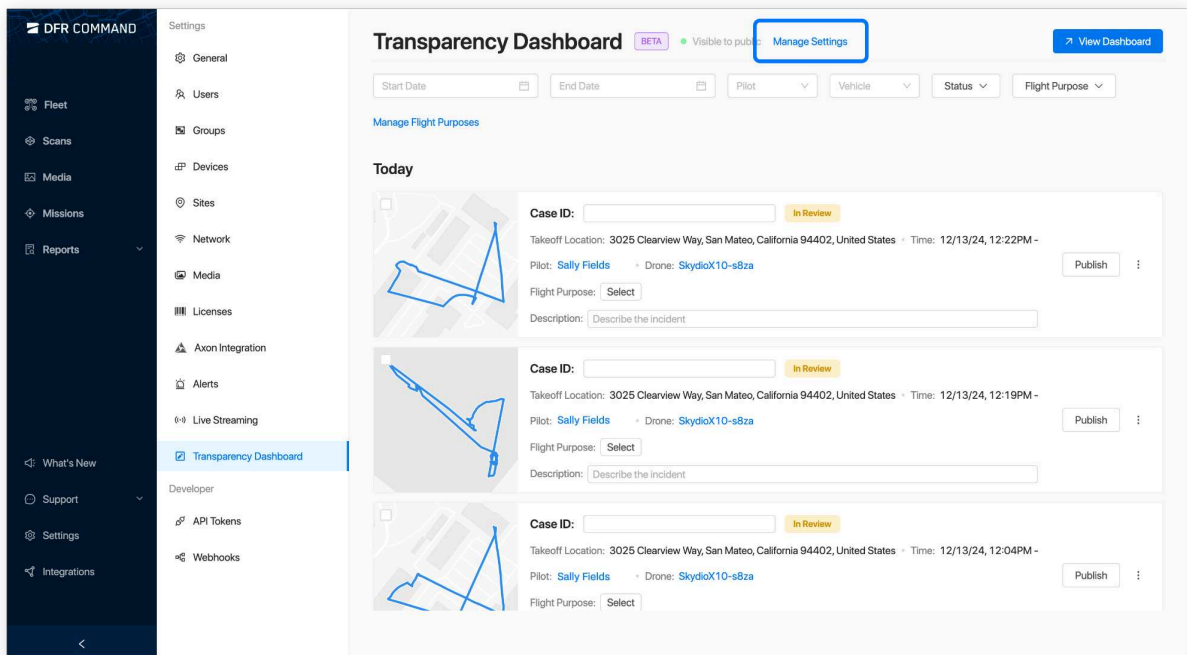
Only Organization Admins can configure and manage Transparency Dashboard settings. Editing, reviewing, and publishing flights can be done by Cloud Users, Remote Pilots, and Org Admins.

Dashboard Setup

To set up a Transparency Dashboard, users can follow these steps:

Step 1 - Select Settings > Transparency Dashboard

Step 2 - Select Manage Settings (located at the top of the page)



Step 3 - Configure dashboard settings

Toggle **Transparency Dashboard** ON to enable the public-facing dashboard. No flights will be visible on the public dashboard until flights are selected to publish.

If an Organization Admin **uploads the organization's logo**, this will be displayed in the top left corner of the public dashboard.

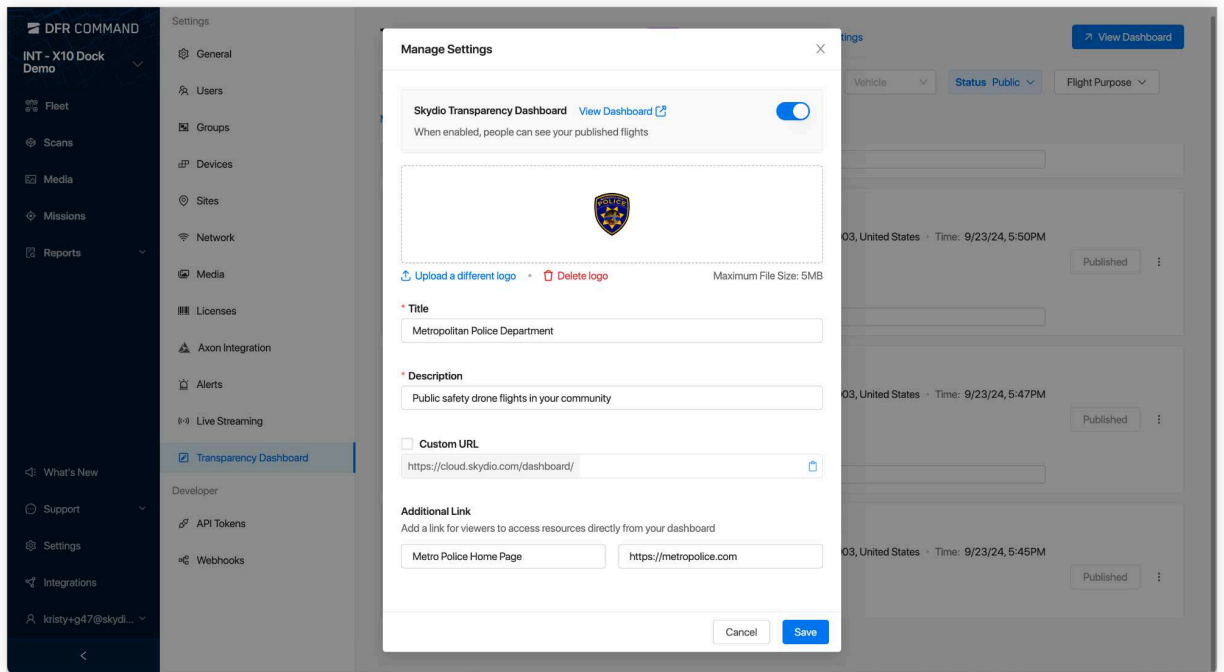
- Maximum file size is 5 MB

Create an **external-facing title and description** for the dashboard.

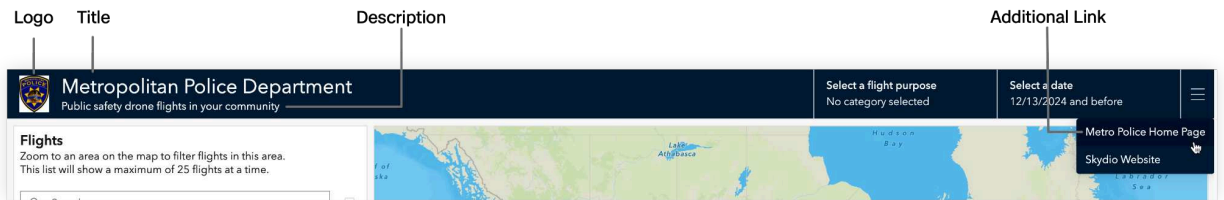
Organization Admins have the option to **create a custom URL** for the dashboard. The URL format will be cloud.skydio.com/dashboard/[custom name].

- If no custom URL is defined, the dashboard URL will end in a Skydio-assigned organization ID number

Additional Link will add an external link to the top-right dropdown menu of the dashboard (e.g., link to the agency's home page, link to the agency drone policies).



External View:



Step 4 - Save

The Transparency Dashboard is now viewable by anyone who has the dashboard link.

Flight data will not be visible on the dashboard until flights are selected to publish. Flights will default to the **In Review** status.

Categorizing and Labeling Flights

Organization Admins have the option to label each flight with a **flight purpose**, which will enable users to sort their flights and easily search within both Skydio Cloud and the public dashboard.

The Flight Purpose will be visible on the public-facing Transparency Dashboard when a flight is published.

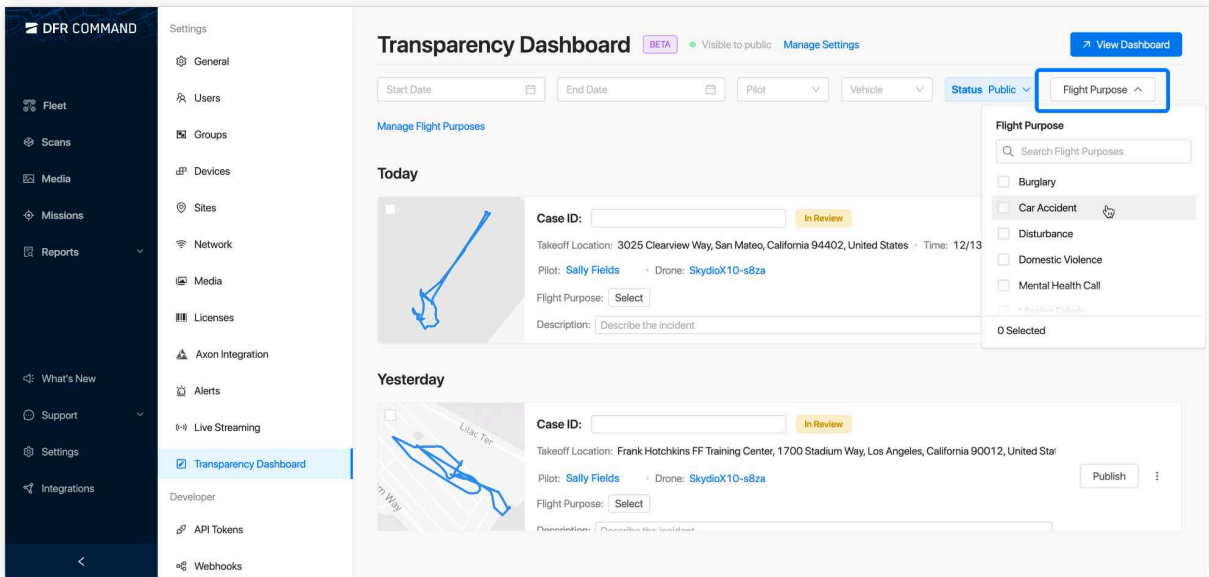
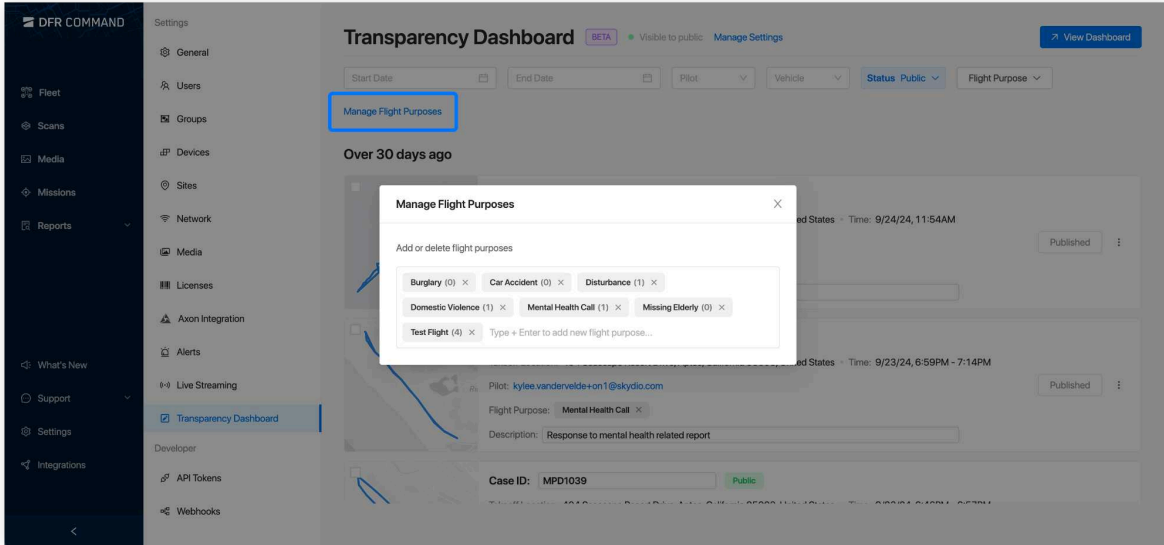
To categorize and label flights, users can follow these steps:

Step 1 - Navigate to Settings > Transparency Dashboard

Step 2 - Select Manage Flight Purposes

Begin typing to add a new category. Use this menu to add to or delete from the list of Flight Purposes.

After a Flight Purpose is created, Cloud Users, Remote Pilots, and Org Admins can assign the appropriate purpose to a flight.



Claiming and Linking Devices

To manage a fleet of Skydio flight systems, users must first claim and link their hardware devices to ensure they receive updates and are associated with the appropriate Skydio Cloud organization.

Claiming devices enable users to track usage metrics and assign additional software licenses. Hardware to claim includes:

- Vehicles (drones)
- Docks
- External Radios
- Controllers
- Sensor Packages
- Attachments
- Batteries
- Other

NOTE: Attempting to pair a Dock-assigned drone with a Skydio X10 Controller is not a supported configuration. If absolutely necessary, extensive reconfiguration is required and must be coordinated through Skydio Support.



NOTE: For organizations with large fleets, Skydio Customer Success Managers can assist in bulk claiming new drones and batteries in Skydio Cloud.

Finding Drone Name, Controller Serial Number, and Battery Serial Number



Skydio X10 - UAV Name

This begins with “SkydioX10-” and can be found on the label inside the battery bay of the drone.

UAV Name: SkydioX10-##### **Serial Number:** 1668B12345678901


 (S) SER 1688B12345678901
 (17V) MFR 86PV4
 (1P) PNO 920-123456-000
 



Model: SR47PCV **Radio:** Skydio Connect SL, Cellular
Input: 5-20VDC, 5A **Output:** 5-20VDC, 3A
Power: LiPo, 18.55VDC
Contains FCC IDs: 2ATQRSMODBV3
 RI7FN980



Assembled in the USA 
 **REMOTE ID**
 ENABLED
NDAA
 COMPLIANT

Skydio X10 Controller Serial Number

This begins with "X10CTRL-" and can be found on the label located on the back of the controller.




Serial Number:
X10CTRL-1234

 Assembled in the USA
 


HDMI
UK CA CE


Model: SC18V1
Radio: Skydio Connect SL
Input: 5-15VDC, 3A
Output: 5VDC, 3A
Contains FCC IDs: 2ATQRSMODBV3S
 A3LSMS916U
Contains IC ID: 25280-SMODBV3S

(S) SER X10CTRL-1234
 (17V) MFR 86PV4
 (1P) PNO 920-123456-000

 201-240222
 D240034201
 

Skydio X10 Battery Serial Number

This 16-character number can be found on the battery label below the QR code.



Claiming a Device

Users can follow these steps to claim a device:

Step 1 - Select Settings > Devices

Step 2 - Select Claim Device

Step 3 - Enter the Device Name

Depending on the device that is being claimed, enter either the UAV name, serial number, or battery serial number.

Step 4 - Rename the device (optional)

Device names display on the Fleet Page and during operations. To name a device:

1. Locate the device to rename from the **Devices** tab in Step 1
2. Select the ellipsis (three dots)
3. Select **Change Settings**
4. Rename and save

Linking Devices

Users can follow these steps to link devices:

Step 1 - Ensure all flight system components have been claimed

- Skydio X10
- Dock for X10
- External Radio

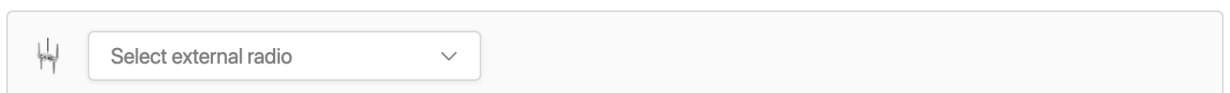
Step 2 - Open the Dock Device Page

Stay on the Overview tab and locate the Flight System section.



Step 3 - Edit the Flight System

Select the edit icon in the upper right to view a drop-down list of linkable devices.



Step 4 - Link devices

Select the relevant external radio and drone from the dropdown. Press Save to apply. The devices will link when next connected to the internet.

Create Groups (Beta)

The **Groups** feature (Beta) in Skydio Cloud allows Administrators to organize the drones and Docks, and the data they produce, into Groups. Administrators can then assign access to those Groups based on specific users or roles.

Administrators then have the option to assign access to those Groups to specific users and user roles.

Examples of when the Groups feature might be used:

- Access to sensitive data (telemetry and media) needs to be restricted to specific personnel
- A Remote Pilot that flies vehicles/Docks at three different locations only wants to see the vehicles and missions for one location at a time
- The flight history needs to be segmented and viewed by different business units

Administrators will see a default Group called **Entire Organization** that comprises all vehicles and Docks in their organization.

- This Group cannot be deleted and devices cannot be removed.
- To remove a device from the Organization, users will need to unclaim it under Settings > Devices. They can follow the instructions below:

Step 1 - Navigate to Settings > Groups

Step 2 - Select Create Group

Step 3 - Name the Group

Step 4 - Add Flight Systems

When devices are added, their future flights and other associated data will be visible in the Group.

Flight Systems can only belong to one Group at a time.

TIP: Administrators can group the drones by physical location or business function.

If devices are linked (e.g., a drone to a Dock) adding one of the devices to a Group will automatically add its linked counterpart.

Step 4 - Add Users

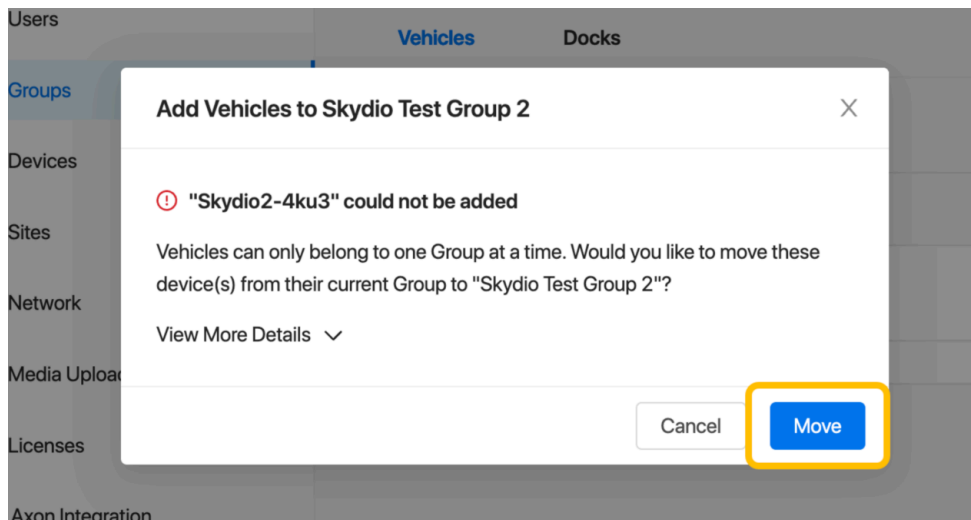
Once Groups have been created, news users can be added within the **Users** menu. Existing users can be added by:

1. Finding their email
2. Selecting the ellipsis
3. Selecting Edit

Moving Devices Between Groups

If Administrators attempt to add a drone or Dock that already belongs to another Group to a new one, they will be notified and given the option to select either **Cancel** or **Move**.

If they select **Move**, that device, its linked device (if it has one), and its flight data will be moved to the new Group.



Deleting a Group

When Administrators delete a Group, the devices and data will remain in Skydio Cloud. They are still visible and accessible in the primary Entire Organization Group.

Any users who only had access to view that Group will no longer be able to view any device data/information in Skydio Cloud.

Registering Users

To enable remote operations, fleet management, and media access, each pilot or team member must have a user account in Skydio Cloud.

Adding users ensures that flight activity, settings, and media are properly attributed and accessible based on role and permissions.

Access Levels within Skydio Cloud

| | |
|---------------------------|--|
| Organization Admin | Has full access to organization settings in Skydio Cloud (e.g., Site creation, adding users and assigning roles, claiming devices, etc.) |
| Remote Pilot | Can plan and run missions (Skydio Dock and Remote Ops only) |
| Pilot | User is assigned to a vehicle, but has no Cloud dashboard access |
| Cloud User | Can view dashboard, download flight data, and sync, manage and view media (with the purchase of Media Sync) |

| | Admin | Remote Pilot | Cloud User | Pilot |
|-----------------------|-------|--------------|------------|-------|
| Fly vehicles | ✓ | ✓ | ✓ | ✓ |
| Sync Media | ✓ | ✓ | ✓ | ✓ |
| View Cloud Dashboard | ✓ | ✓ | ✓ | |
| Download Flight Data | ✓ | ✓ | ✓ | |
| Share and View Media | ✓ | ✓ | ✓ | |
| Delete Media | ✓ | ✓ | ✓ | |
| Remote Flight Deck | ✓ | ✓ | | |
| Plan and Run Missions | ✓ | ✓ | | |
| Manage Media Settings | ✓ | | | |
| Claim Vehicles | ✓ | | | |
| Add and delete users | ✓ | | | |
| Assign User Roles | ✓ | | | |
| Manage API Tokens | ✓ | | | |

Role Responsibilities

Organization Admins

Organization Admins manage system-level settings in Skydio Cloud. They are responsible for tasks such as maintaining fleet and equipment readiness, managing integrations, assigning user roles, and ensuring compliance with regulatory and organizational policy.

Remote Pilots

Remote Pilots, or Remote Pilots in Command (RPIC), conduct missions via Remote Flight Deck (RFD) or DFR Command, operating drones remotely rather than in-person. This could include tasks such as managing autonomous flights, overseeing Drone as First Responder (DFR) responses, monitoring live video feeds, and maintaining mission oversight from a command center or dispatch location. The RPIC is solely responsible for safe operation of the flight system during all phases of operation. Remote Pilots may also be referred to as RPICs, Remote Pilots, or Pilots in this manual.

Cloud User

Cloud Users view and manage data in Skydio Cloud. This can include viewing and running flight reports, viewing, sharing, and deleting media, and viewing the device health pages. The Cloud User role is assigned to personnel who need access to data in the cloud but won't be flying remotely, such as a data analyst.

Adding a User

Adding a User can be accomplished with the following steps:

Step 1 - Select the Settings menu

Step 2 - Select Users

Step 3 - Select Add User

- Enter an email address
- Assign a role
- Add a Group
- Optionally add an expiration date for this user

NOTE: A member's email address can only be associated with one organization at a time.

Troubleshooting

If technical assistance from Skydio Support is needed, users can invite support personnel into their organization with time-limited, controlled access.

Two user roles, **Skydio Read-Only** and **Skydio Superuser**, let Administrators decide the level of access and duration, giving Administrators control during troubleshooting.

- **Skydio Read-Only** – Only provides viewing access to the organization for light troubleshooting; including incident markers, Axon device locations, flight history, media playback, and scan data
- **Skydio Superuser** – Provides Organization Admin-level access to the organization for in-depth debugging and configuration support

Configuring Single Sign-On (SSO)

Single Sign-On (SSO) allows users to log in to multiple systems and applications with a single set of credentials, eliminating the need to remember multiple usernames and passwords. With SSO enabled in Skydio Cloud, Administrators can streamline authentication, reduce security risks associated with password management, and provide users with a more seamless login experience.

Skydio officially supports Okta and Microsoft Entra using SAML 2.0 or OIDC integrations. Other identity providers using these protocols may work if they meet the same technical requirements, but support is not guaranteed. If users encounter issues when configuring an unlisted provider they should contact Skydio Support.

- SSO configurations can be modified or deleted after creation. If an identity provider is in use by an user, it cannot be deleted
- To delete an SSO configuration, users should ensure that it is disabled as the organization default and no individual users are enabled with per-user overrides
- New login methods are not enabled for users by default

SAML

- Skydio expects the NameID to be in email address format
- ACS and Metadata URLs for a created SAML integration can be retrieved later from the Login Methods configuration page

- No additional claims are currently inspected by the SAML integration

OIDC

- Skydio Cloud only supports OIDC-compliant login flows. Implicit or hybrid flows are not supported
- The OIDC callback URL and initiate sign-in URL can be retrieved later for an existing OIDC application from the Login Methods page
- Skydio Cloud does not support single sign-out
- Skydio Cloud does not use any claims other than “email”

More information including detailed setup instructions for Okta with SAML, Okta with OIDC, Entra ID with SAML, Entra ID with OIDC, and Axon Connect can be found at [How to configure SSO in Skydio Cloud](#).

Managing Login Methods

Skydio Cloud supports logging in with an email code, SSO provider, and Axon connect. Users have the ability to configure which login methods are applied by default to all users in an organization. Additionally, overrides for login methods can be set on a per-user basis.

- A given user can log in via email passcode, Axon Connect (if configured), and one SSO provider
- User accounts can only have one SSO provider as Skydio Cloud does not support user accounts having multiple SSO providers

Only Organization Admins can assign default login settings for users.

To manage login methods, Admins can take the following steps:

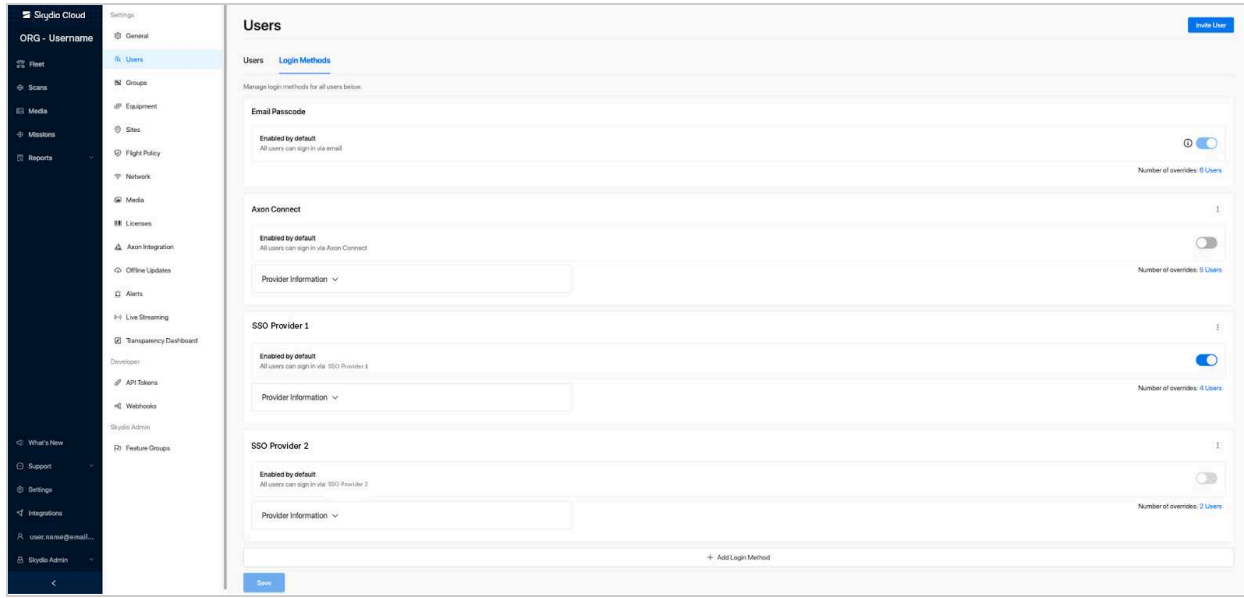
Step 1 - Navigate to Settings > Users

Step 2 - Select the Login Methods tab

Use the toggles to the right of each identity provider to set which ones are enabled by default for users in the organization.

Only one SSO provider can be enabled as default for an organization.

Select **Save** when finished.



Setting Per-User Login Method Overrides

To set per-user login method overrides, Administrators can take the following steps:

Step 1 - Navigate to Settings > Users

Step 2 - Edit settings for the specified user

Locate the user and select the “...” three dots on the right.

- Use the drop-down menus at the top to filter the search

Select **Edit**.

Use the drop-down menus under **Login Types** to select the organization’s preferred SSO identity provider, and enable or disable the ability to login with an email address or Axon.

Use the toggle titled, **Override Sign-In Methods** to enable overrides on a user’s login methods.

- To return to default login methods, disable this toggle

NOTE: If a specific user has overrides enabled, that account will be excluded from changes applied to the entire organization. Per-user overrides are recommended only for specific circumstances.

My Profile

First Name Last Name

Email

Note

Login Types
All users can log in with their email in addition to one single sign-on (SSO) method.

Email Enabled

SSO Skydio Okta (OIDC)

Axon Connect Enabled

Override Sign-In Methods

Role Group

Step 4 - Save all changes

Assigning Licenses

Skydio License Management allows Organization Admins to assign software licenses to each of the drones in the fleet.

Skydio X10 comes equipped with enterprise-level software out of the box (i.e., Core Autonomy), meaning that assigning a software license is only needed if additional software has been purchased.

Add-on Software Licenses for Skydio X10:

- Skydio X10 3D Scan
- Skydio X10 NightSense
- Skydio X10 Scout
- Skydio X10 Crosshair Coordinates

To Assign Licenses, Administrators can take the following steps:

Step 1 - Navigate to Settings > Licenses

The **Licenses Page** shows information about the organization's Purchase History, including:

- Active and expired licenses
- Type of license
- How many licenses have been purchased
- How many have been assigned
- How many remain unassigned
- Expiration dates
- Action tiles to assign licenses
- Action tiles to view the vehicles that already have licenses assigned

Step 2 - Assign Licenses

Select the blue card to assign a software license.

Select **Eligible Vehicles** and a list of drones that are eligible for the license will populate.

- Check the box to assign the license to all eligible vehicles or select individual drones

NOTE: Licenses will be applied upon the next launch.

Step 3 - Navigate to the Dock Device Page

Step 4 - In the field Cloud Settings Last Synced, select the Sync button

Skydio X10 automatically syncs before launching, but selecting this initiates a sync.

Step 5 - Repeat Steps 3 and 4 in the Drone Device Page

Configuring Areas of Operations

Configuring Sites

A **Site** lets users configure their area of operations by specifying optional Safe Landing Points, Dock locations, as well as Keep-in and Keep-out Zones for geofencing when GPS is available. Users have the ability to add up to six Docks to a Site.

Once a Site is created, users can quickly reuse it when planning future missions, helping maintain consistent boundaries and flight behavior across operations.

NOTE: *Creating a Site is strongly recommended when using Dock-based missions, as it provides essential safety and airspace controls.*

Setting Up Skydio Drone-to-Drone Deconfliction (Beta)

Deconfliction prevents Skydio drones in the same Site from colliding, enabling faster, safer operations. Drone deconfliction is a Beta feature – more information can be found by reaching out to Skydio Support.

- Drones are automatically paused when traffic is detected
- Docks must be in the same Site in order for their drones to deconflict
- Users should ensure Dock heights in Sites are correct, relative to each other
- Deconfliction will not work without connection to internet
- Docks, and their respective linked drones, must be added to the same Site in Skydio Cloud for deconfliction to be enabled; if Docks and their drones are not in the same Site, they will not deconflict during flight

WARNING

Risk of mid-air collision and serious injury.

Overriding an automatically paused flight due to drone-to-drone deconfliction carries a significant risk of mid-air collision. Skydio strongly recommends that pilots avoid overriding deconfliction events when performing operations over people. For more information, see Inflight > Airspace Deconfliction > Skydio Drone-to-drone Deconfliction (Beta).

Configuring Zones

Zones allow users to define GPS-based boundaries for outdoor mission areas. These virtual fences guide where the drone is permitted to fly and identify areas it must avoid, helping ensure safe and compliant operations around the site.

Two types of Zones can be added to a Site:

- **Keep-In** instructs Skydio X10 to stay within the designated area; useful for keeping operations confined to authorized airspace or a specific work site
- **Keep-Out** prevents Skydio X10 from entering the designated area; helpful for avoiding sensitive infrastructure or restricted areas

NOTE: Users should ensure each Dock is placed at least 15 ft (4.5 m) away from the nearest Zone boundary to avoid launching or landing conflicts.

Configuring Safe Landing Points

Safe Landing Points are designated backup locations where Skydio X10 can land if it's unable to return to the Dock. This may occur due to situations such as critical battery, unexpected obstructions, or GPS degradation. These locations serve as a last resort to ensure the drone can land safely and avoid damage if docking becomes unviable.

Each Safe Landing Point should be a flat, unobstructed area that's open to the sky and at least 16 ft (~4.8 m) across to allow for safe descent and touchdown. For best results, it is recommended that users define **at least one Safe Landing Point** near each Dock to ensure full coverage across the mission area.

- Safe Landing Points should be located in areas where the drone can safely land and be easily recovered
- Ensure Safe Landing Points are clearly visible at the physical Site so they remain free of obstructions
- Areas should be free of obstacles, away from bodies of water, and clear of locations with frequent foot traffic
- Safe Landing Points should not be established near moving equipment
- Safe Landing Points should be relocated if the selected area becomes unsuitable for safe landings.
- **If a field battery swap is performed with a standard X10 battery, the drone will return to the Safe Landing Point closest to the Dock.** Refer to the *Low Battery* section for more information.

NOTE: Skydio X10 will prioritize Safe Landing Points based on proximity, selecting the one closest to the drone.

Creating a Site

To create a Site, users can follow these steps:

Step 1 - Log in to Skydio Cloud

Visit cloud.skydio.com

Step 2 - Navigate to Settings > Sites

Step 3 - Select Add Site

Step 4 - Name the Site

Step 5 - Create a Zone (required)

At least one Zone for is required in a Site. Use the map or search an address to bring the organization's location into the Map View.

A Zone allows the user to set GPS-based volumes that direct the drone to either stay in (Keep-In) or stay out (Keep-Out) of the designated area.

- Outline the operational boundaries of the outdoor area
- Toggle on **“Use as Outdoor Geofence”** to make sure the Geofences are enforced
- If this setting is toggled off, the Site Zones will still exist but the drone will

not Keep-in or Keep-out of any particular areas

Select **Add Zone**.

- Drag the corners of the box to create a polygon that encompasses the Keep-In or Keep-Out Zones
- Click on the dotted line to add a point
- It is important that the geofence has a minimum width of around 5m/15 feet *everywhere*. This includes spaces where Keep-In Zones overlap, or where Keep-Out Zones end.
- Ensure the Dock(s) are at least 15 ft (4.5 m) in all directions from the nearest boundary (walls, floor, ceiling)
- Users can set multiple Keep-in Zones. If the drone needs to fly between Keep-in Zones, then the zones must overlap (and the overlapping portion provides at least 15 feet of space for the drone to pass through from one zone to the next). Non-overlapping Keep-in Zones are allowed but the drone cannot fly from one zone to the other.
- Keep-out Zones should always exist inside of Keep-in Zones. Because the drone will never leave a Keep-in Zone, it would be redundant to add a Keep-out Zone outside of the Keep-in Zone.
- We recommend avoiding any unnecessary complexity to the Site Geofences.
- Do not place keep-out zones in a way that creates narrow passages that are less than 15 feet wide. Keep-out zones at the edge should overlap the keep-in zone.
- When placing a Keep-Out Zone near the edge of a Keep-In, ensure they overlap slightly

Step 6 - Configure Zone settings

Optionally name the Zone(s).

Set the **Ceiling Height** - The maximum height the drone will reach during the mission; measured relative to the Reference Frame.

- **NOTE:** The geofence ceiling height that the user sets will be a fixed altitude above launch. It will not adjust if there is varying terrain/elevation in the operating environment. Operators may encounter areas where the drone becomes “stuck” when it reaches the ceiling before it can traverse over the elevated terrain.
- We recommend setting the geofence ceiling height above the highest point in the operating environment (but below the maximum height AGL). Use the *Flight Controls > Height Ceiling* setting to regulate altitude and adjust the Height Ceiling to comply with regulatory waivers.
- For more information see *Inflight > Setting Ceilings with Varying Terrain*.

Set the **Floor Height** - The minimum height the drone will reach during the mission, measured relative to the reference frame

- This value can be negative if the Reference Frame is stationed at a higher

elevation

- We do not recommend creating floating Geofence zones and recommend setting the Floor height at ground level

If multiple Zones are needed, select **Back to Zones** to restart the Zone creation process.

- Create as many Zones as needed, but there is a limit of 1000 total vertices across all Zones

Once all Zones have been created, select **Save Site**.

Select **Back to Site Overview** to continue Site setup.

Step 7 - Set the Reference Frame

Choose a point on the ground to use as a reference for measuring Dock Locations, Geofences, and Waypoints.

Click and drag the **green box** or the **colored arrows** to adjust the location of the Reference Frame on the map. Click and drag the angle arc to adjust the angle.

- Select the 3D map button to visually position the Reference Frame (e.g., at the top of a building)

Alternatively, use the Longitude, Latitude, and heading values to adjust the Reference Frame location

Set the **Height above Sea Level**.

Select **Save Site**.

Select **Back to Site Overview** to continue Site setup.

Step 8 - Set Safe Landing Points

Define locations that are safe for the drone to return to if it is unable to Return to Dock in an emergency.

Safe Landing Points should be flat spaces at least 16 ft (~4.8 m) across and open to sky.

- We recommend placing at least one location near each Dock

Set the **Return Height above Reference Frame**

- This is the altitude the drone will fly at while in transit to the Safe Landing Point

Select **Add Safe Landing Point**.

- Select and drag the icon to move the location of the Safe Landing Point

Skydio X10 will prioritize Safe Landing Points based on proximity, selecting the one closest to the drone.

Select **Save Site**.

Select **Back to Site Overview** to continue Site setup.

Step 9 - Select Docks

Select **Add Dock**.

- A list of Docks in the Fleet will appear
- If this is the first flight with the selected Dock, **the drone will require a setup flight**. Remote Pilots can complete a setup flight at this time, or finish the Site setup first.
- Non-Dock Skydio X10s may be added to a Site

Set the **heading, location, height** (above the Reference Frame) of the Dock, and **platform tag type**.

- The platform tag type will be configured automatically during the setup flight. If Remote Pilots experience an error with the setup flight, reach out to Skydio support. During troubleshooting, a different platform tag type may need to be manually selected. Do not change this setting unless instructed to do so.

Select **Save Site**.

The Site is now ready to use.


NOTE: *If there are multiple Docks in the organization's fleet, repeat Step 9 for each of them.*

Setup Flight

A **Setup Flight** is required for all new flight systems, or after relocating the Dock, to ensure proper location calibration.

- The drone must be linked and actively online to initiate the Setup Flight
- Moving the Dock 50 ft (15 m) will display a warning to redo the setup flight

Failure to do so will result in poor performance in night or rain conditions.

| <i>New Dock</i> | <i>Relocated Dock</i> | | | | | | |
|--|--|--------------|----------|-----------|--------|-----------|--------------|
| <div data-bbox="297 705 699 894"><p>Setup Required</p><p>Dock requires a calibration flight to identify the platform tags and register the Dock's location.</p><p>Set Up Now</p></div> <p>Heading (temporary) ⓘ</p> <p> <input type="range" value="90"/> 90 °</p> <p>Longitude (temporary) Latitude (temporary)</p> <p><input type="text" value="-122.3309343"/> <input type="text" value="37.5340963"/></p> <p>Height (above Reference Frame)</p> <p><input type="text" value="0"/> ft</p> <p>Platform Tag Type</p> <p><input type="text" value="QUAL1_SET_A"/> ▼</p> <p><input type="button" value="↻ Reset to Ground Level"/></p> | <table><tr><td>Heading</td><td>Latitude</td><td>Longitude</td></tr><tr><td>305.7°</td><td>37.534394</td><td>-122.3311248</td></tr></table> <p>Last Calibrated</p> <p>4/9/2025, 10:07:10 AM</p> <p>Height (above Reference Frame)</p> <p>0 ft</p> <p>Low Accuracy ⓘ</p> <p>Platform Tag Type</p> <p>PROTO_SET_A</p> <p><input type="button" value="Update Now (New Setup Flight)"/></p> | Heading | Latitude | Longitude | 305.7° | 37.534394 | -122.3311248 |
| Heading | Latitude | Longitude | | | | | |
| 305.7° | 37.534394 | -122.3311248 | | | | | |

NOTE: Performing a Setup flight with obstacle avoidance disabled may fail and is not recommended.

A Setup Flight can be performed by following these steps:

Step 1 - Navigate to Settings > Sites

Step 2 - Select the Site of the new or relocated Dock

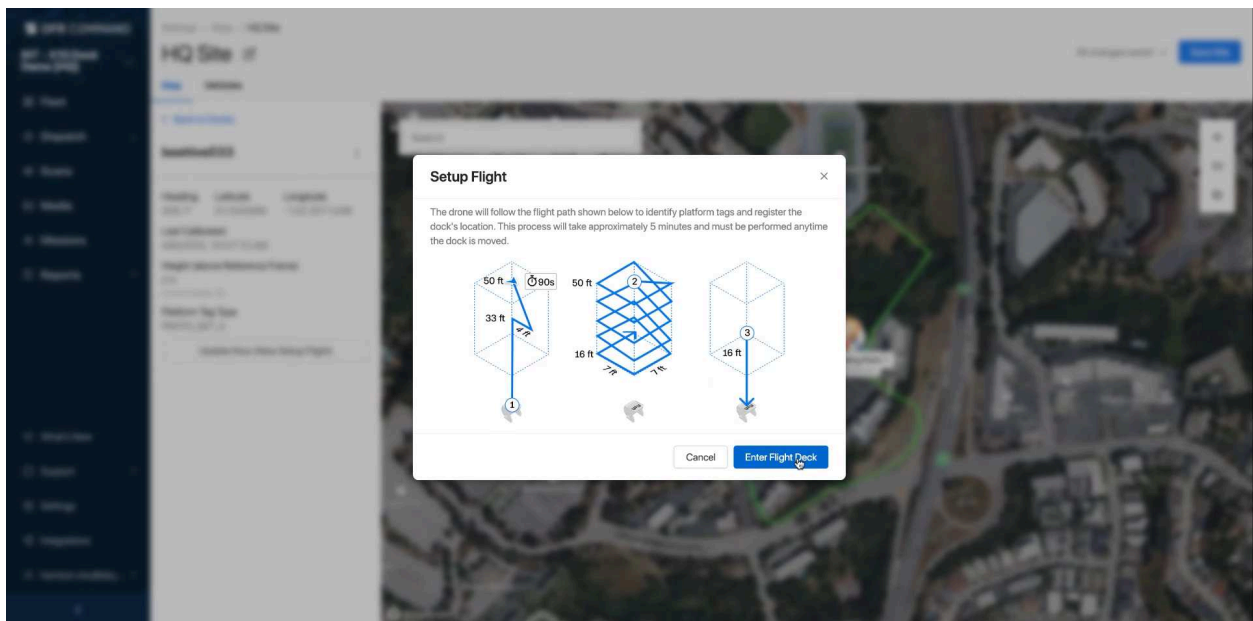
Step 3 - Select Docks > Name of the new or relocated Dock

Step 4 - Perform Setup Flight

Select **Set Up Now** or **Update Now** and read the dialogue box that appears.

To identify the platform tags and register the location of the Dock, Skydio X10 will autonomously fly the path shown in the diagram below.

Select **Enter Flight Deck**.



Pathfinder Boundaries (Beta)

Organization Admins to define the data sources and airspace constraints that Skydio X10 will reference when generating autonomous routes when Pathfinder is enabled.

These boundaries apply to all Dock-based operations where Pathfinder is enabled for Fly Here routing or Return Behaviors.

- Pathfinder Boundaries are managed at the organization level
- These settings ensure that Pathfinder's inflight decisions are aligned with the organization's operational requirements, local airspace considerations, and regulatory approvals

Configuring Pathfinder Default Flight Settings

Organization Admins are responsible for configuring default Pathfinder settings for Return Behavior, Autonomous Flight, and NightSense:

1. Navigate to **Settings > Flight Settings**
2. Use the toggle under **Return Behavior** to enable Pathfinder. Once enabled, use the slider or textbox to set the return altitude AGL
 - If Pathfinder is not available (e.g. because the drone is outside the covered area), the drone will use Up and Over



3. Scroll to **Autonomous Flight > Fly Here Now** and select between **Pathfinder** or **Up and Over**

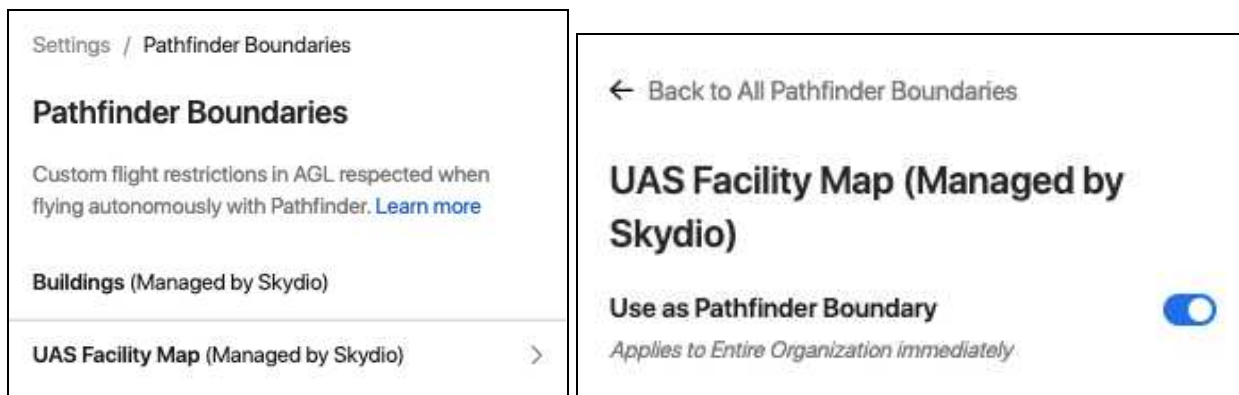


4. Scroll to **NightSense** and enable the toggle called **Auto-Off When Using Pathfinder**

- When this toggle is ON, NightSense automatically disables during transit at a target altitude, reducing processing load and improving flight speed
- This setting can also be adjusted during flight

Enabling Pathfinder Boundaries

1. Navigate to **Settings > Pathfinder Boundaries**
2. Select **UAS Facility Map (Managed by Skydio)**
3. Select the toggle to enable or disable **Use as Pathfinder Boundary**
 - Toggle selection applies to the entire organization immediately
 - **ON** - FAA restrictions strictly enforced in all routes
 - **OFF** - FAA restrictions ignored; this can be used if the organization has approval or a waiver for custom FAA restrictions



Configure Default Flight Settings

An **Organization Admin** has the ability to configure Flight Settings. These apply to all Docked drones by default and are enforced automatically unless overridden for a specific mission.

Users can view default settings by following these steps:

Step 1 - Log in to Skydio Cloud

Visit cloud.skydio.com

Step 2 - Select Settings (located at the bottom of the left sidebar)

Step 3 - Select Flight Settings

The screenshot shows the 'Flight Settings' page in the Skydio Cloud interface. The page is titled 'Flight Settings' and has a subtitle 'Customize default flight settings for all flights in your organization'. There are two tabs: 'Docked X10' (selected) and 'Non-Docked X10'. A 'Restore Skydio Defaults' button is in the top right corner.

The settings are organized into several sections:

- Flight Controls:**
 - Height Ceiling (Default: Enabled):** A slider set to 400 ft, with a range from 10 ft to 1500 ft. A toggle switch is turned on.
 - Weak GPS Altitude Limit:** A toggle switch is turned on.
- Lighting:**
 - RGB Lighting (Default: Enabled):** A toggle switch is turned on. A dropdown menu is set to 'Navigation (Default)'.
 - Additional Lighting:** Three buttons: 'Off (Default)' (selected), 'Strobe', and 'Infrared'.
- Return Behavior:**
 - Return Speed:** A slider set to 36 mph, with a range from 4 mph to 36 mph.
 - Return Path Options:** Text explaining that the drone will attempt to return to dock using Pathfinder. If Pathfinder is not available, it will use Backtrack. If Backtracking is not available, it will use Up and Over.
 - Pathfinder (BETA):** A toggle switch is turned on. Description: 'Returns using the shortest calculated path'.
 - Pathfinder Return Height (AGL):** A slider set to 204 ft, with a range from 100 ft to 400 ft.
 - Backtrack:** A toggle switch is turned on. Description: 'Returns using the previously flown path'.
 - Up and Over (Always Enabled):** Description: 'Returns using an up, over, then down flight path at the height specified below'.
 - Return Height:** A dropdown menu is set to 'Above Dock (Default)'. A slider is set to 200 ft, with a range from 0 ft to 400 ft. Description: 'Above Dock sets the return height above the dock's altitude. Above Vehicle sets the return height above the drone's current in-flight altitude at the time that a return is started.'
- Autonomous Flight:**
 - Fly Here Now:** Description: 'Right-click on the map or respond to a marker to fly autonomously to any location'.
 - Path between waypoints:** Two buttons: 'Pathfinder (Beta)' (selected) and 'Up and Over (default)'.

Default Flight Settings

Height Ceiling (Default: Enabled)

Defines the maximum allowed altitude (height above launch) for Docked flights. Administrators should ensure this altitude is high enough for mission objectives but still within FAA limits.

RGB Lighting (Default: Enabled - Navigation)

The lights on the end of the arms will appear red and green while flying. When the drone is powered on and grounded, the lights will appear blue.

Users can select **Navigation (default)**, **Police**, or **Emergency** to change the configuration of the RGB lights. When Police or Emergency are enabled, the front and back RGB lights on the drone will flash and alternate colors between the right and left arms.

- Navigation lights are solid red and green
- Police flashes blue and red
- Emergency flashes blue and white

Additional Lighting

Allows users to select Strobe or Infrared options.

Return Speed

Sets the speed at which Skydio X10 returns to the Dock in the event of a mission end or interruption.

Return Path Options

Specifies how the drone will return:

- **Pathfinder** is Skydio's onboard routing engine that plans efficient, airspace-aware and terrain-following routes. When enabled, the drone will use Pathfinder to navigate back to the Dock. If Pathfinder is unavailable while returning, the drone will use Up and Over. Set the Pathfinder Return Height (AGL) using the slider or textbox.
- **Up and Over** will fly directly to the return point at the height specified below.
- **Backtrack** returns using the previously flown path. Backtrack is only available when Obstacle Avoidance is enabled. If a Remote Pilot selects Backtrack, he or she can specify contingency Up and Over Settings in the event that obstacle avoidance is disabled on the drone's return (i.e., it starts raining).

- **If Obstacle Avoidance is turned off** (e.g., because of precipitation), the vehicle will use Up and Over return instead of Backtrack

Up and Over Height Settings

Specifies whether the Return Height should be absolute, or relative to the current height of the drone

- **Above Dock** sets the return height above the Dock's altitude.
- **Above Vehicle** sets the return height above the drone's current inflight altitude at the time that a return is started. Use the slider or textbox to set the Return Height.

Return Height

Sets the altitude the drone will ascend to before returning. If using Up and Over as the Return Path, users should be cautious of how the Return Height is calculated (Relative vs. Absolute) to ensure safe clearance.

NOTE: If the drone loses connection while above the configured Return Height, it will not descend and will instead return at its current (higher) altitude. If Pathfinder is enabled, the drone descends to the configured return altitude relative to the ground before continuing its return.

Autonomous Flight

Fly Here Now

Select between **Pathfinder** or **Up and Over** transit behaviors between waypoints when initiating a Fly Here Now action (right-click on the map).

This is set to Up and Over by default.

Fly to Point Speed

Set the maximum speed the drone will achieve when flying to a point on the map.

- Minimum: 3 mph
- Maximum: 45 mph
- Default: 36 mph

NightSense

Configure the following default flight settings when using the NightSense Attachment:

- **Auto-On When Entering Low Light Flight Mode** - Enable this toggle to ensure NightSense turns on whenever entering Low Light Flight Mode and therefore maintain obstacle avoidance
- **Auto-Off When Using Pathfinder** - Enable this toggle to turn off NightSense when flying with Pathfinder to reach maximum speed (disables obstacle avoidance). Enables NightSense on arrival or when paused.

WARNING

Risk of serious injury or system damage.

When NightSense is automatically disabled during Pathfinder transit (e.g., when the toggle **Auto-Off When Using Pathfinder** is enabled), obstacle avoidance is also disabled which may pose a risk of serious bodily injury or damage. Pathfinder relies on map data and does not detect obstacles that are not represented in that data, including temporary or newly introduced structures.

Before enabling this setting, Organization Admins must ensure that all known temporary obstacles within the operating area are routinely identified and properly geofenced. Flying with NightSense or obstacle avoidance disabled significantly increases the risk of collision. The Remote Pilot in Command remains solely responsible for the safe operation of the aircraft at all times.

Capture Settings

Configure organization-wide video settings:

Auto-Record

Enable to automatically begin recording during flight.

- Controls the autorecording of the MP4 or MPEG-TS video file only.
- Preview and support videos (e.g. low resolution videos) will still be recorded from launch until land.
- If disabled, MP4 and MPEG-TS will not be recorded until it is manually triggered in flight.

Video Recording Mode

Choose how recorded video is optimized and reboot the drone after changing this setting to apply the new default:

- **Optimize for Quality (Default)** - Prioritizes higher video quality, resulting in larger files.
- **Optimize for Size** - Reduces file size to conserve storage, with a corresponding reduction in video quality.

Video File Type

Choose the format used to save recorded video files:

- **MP4 (Default)** - A widely compatible video format that is easy to view and share
- **MPEG-TS** - Includes embedded KLV metadata but is less portable and may require specialized software to view

Lost Connection Behavior

Defines how the drone responds if it loses connection. If connection is lost, Skydio X10 will return to the Dock.

Users can set the amount of time that the drone will hover in place before returning by using the slider to set a delay between 0 and 180 seconds (default is 10 seconds). This delay allows time to re-establish connection before the drone begins returning

Gamepad Controller Setup (Optional)

Remote Flight Deck offers the flexibility to pilot the drone using a standard gamepad controller, providing an intuitive alternative to traditional keyboard control methods.

- If a controller is paired, Remote Pilots can still fly using keyboard inputs
- If the keyboard and controller are used simultaneously, RFD will respect the controller input over the keyboard

Supported Controllers

While many controllers with standard mapping are compatible, the following have been tested and confirmed to work seamlessly:

- [Xbox Wireless Core Controller](#)
- [Xbox Wireless Controller](#)
- [Logitech F310](#)

NOTE: For the Logitech F310 controller, pressing the **Mode** button swaps the D-Pad with the left joystick. When connecting to a Mac, users should ensure the switch on the back is set to D (not X).

Controller Setup

To set up a controller, users should:

Step 1 - Connect the gamepad to the computer using a USB cable (or pair

to via Bluetooth)

Skydio Cloud will automatically recognize the controller and the gamepad will appear as **Player 1**. Mapping is "standard" by default.

The screenshot shows a web interface for a gamepad. At the top, there are four tabs for PLAYER 1, PLAYER 2, PLAYER 3, and PLAYER 4. The first tab, labeled 'PLAYER 1', is active and shows 'Xbox Controller'. The other three tabs are labeled 'None detected'. Below the tabs, the main content area is titled 'Xbox Controller' and shows 'Xbox Wireless Controller (STANDARD GAMEPAD Vendor: 045e Product: 0b13)'. A table below this shows the controller's status:

| INDEX | CONNECTED | MAPPING | TIMESTAMP |
|-------|-----------|----------|------------|
| 0 | Yes | standard | 1740.90000 |

Below the table, there are several status indicators:

| Pose | HapticActuators | Hand | DisplayId | Vibration | Test |
|------|-----------------|------|-----------|-----------|-----------|
| n/a | n/a | n/a | n/a | Yes | Vibration |

There are also two rows of button status indicators (B0-B17) and four axis status indicators (AXIS 0-3), all showing values of 0.00 or 0.00000. To the right of the text is a diagram of an Xbox controller with buttons and axes highlighted in blue.

Example image of hardwaretester.com showing a connected Xbox controller

Step 2 - Configure settings in Remote Flight Deck

Open Remote Flight Deck Settings and select **Flight Controls**.

Settings only persist through the current browser tab session.

Fleet Management

The **Fleet Page** in Skydio Cloud provides a centralized view of the flight systems in the organization. This includes their connection status, location, configurations, and system health.


This page is the Organization Admin's primary tool to confirm that all hardware is properly claimed, equipped, and ready for operation.

Effective fleet management supports reliable operations and smooth coordination between various phases of operation.



Verify Accessories and System Health

The Fleet Page can be used to confirm that each drone is equipped with the correct Sensor Package and attachments for its intended operations.


There are icons below each Flight System that represent the type of Sensor Package or attachment on the linked drone, along with its current health status. Hovering over an icon or health status provides more information:



beehive033
SkydioX10-c5th



Limited Operation

99% 

Health States

| | |
|--|--|
| <div style="border: 1px solid orange; padding: 5px; display: inline-block; color: orange; font-weight: bold;">Limited Operation</div> <p><i>Limited Operation (yellow)</i></p> | <p>Refers to device health</p> <p>Some functionality is restricted (e.g., a battery is nearing end of life); depending on the issue, the system may still be airworthy, but maintenance is needed soon</p> |
| <div style="border: 1px solid red; padding: 5px; display: inline-block; color: red; font-weight: bold;">Inoperable</div> | <p>Refers to device health</p> <p>A critical issue is preventing flight; immediate action</p> |

| | |
|---|--|
| <i>Inoperable (red)</i> | required |
| <div style="border: 1px solid gray; padding: 5px; display: inline-block;"> No Known Issues </div> <i>No Known Issues (gray)</i> | Refers to device health Functioning nominally |

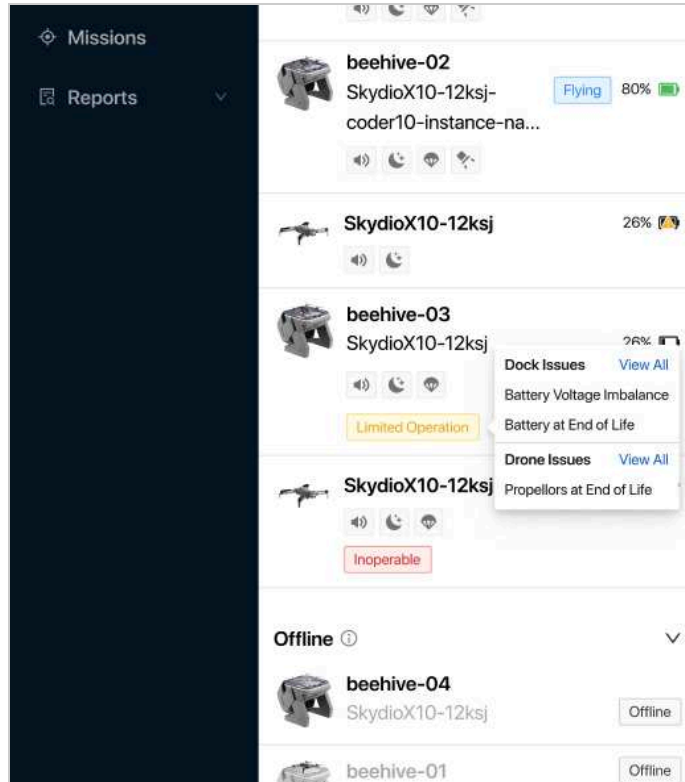
Connectivity Status

| | |
|---|---|
| <div style="border: 1px solid green; padding: 5px; display: inline-block; color: green;"> Online </div> <i>Online</i> | Refers to network connectivity health, appears on the Flight System page (Fleet > Select the name of the Dock) Connected; system is ready for flight |
| <div style="border: 1px solid gray; padding: 5px; display: inline-block;"> Offline </div> <i>Offline (gray)</i> | Refers to network connectivity health System is disconnected |

If a device is in **Limited Operation** or **Inoperable**, the Issues Card will provide:

- Issue descriptions detailing what is wrong with the device
- Severity assessments based on how it affects operations
- Recommended resolutions to fix the issue

Hovering over a **Limited Operation** or **Inoperable** status displays details about the issue (e.g., Front Camera Failure).



Device Pages

CAUTION

Risk of reduced flight safety or equipment failure.

The Remote Pilot and their organization/agency are responsible for proactively tracking, examining, and replacing Skydio X10 drone propellers and batteries, as well as monitoring system faults to maintain optimal flight safety and reliability based on flight system maintenance guidelines.

Individual **Device Pages** may be used for general fleet management, including system monitoring, updating information or diagnosing and troubleshooting issues. Device pages are available for drones, Docks, External Radios, batteries, and controllers.

Device Pages streamline issue remediation by highlighting problems, offering resolution recommendations, and providing a centralized view of connectivity, settings, and overall system health.

Each Device Page provides:

- Connectivity Status

- Health Overview
- Outstanding Issues
- Suggested Resolutions
- Other information relevant to the specific device type

How to Access Device Pages

There are two ways to access a Device Page:

Option 1 (Drones and Docks only)

Users can:

1. Log in to Skydio Cloud
2. Navigate to the Fleet page
3. Select a specific device
4. Click the gear icon next to the device's name to view its Device Page

Option 2

Users can:

1. Log in to Skydio Cloud
2. Navigate to Settings > Devices
3. Select the type of device from the top menu
4. Select a specific device to view its Device Page

Prop Hour Counter

CAUTION

Risk of propeller failure and loss of flight control.

Exceeding the recommended propeller flight hours increases the likelihood of component failure. Users must proactively track usage, inspect propellers regularly, and replace them as recommended to maintain safe and reliable flight operations.

Skydio Cloud counts the drone propeller hours to help track when they have reached their maximum flight hours and are in need of replacement.

If there is a dash “—” in this field (within the Vehicle Device Page), it means that the date of the most recent propeller replacement must be added. To begin tracking, users should:

1. Select **Mark Replaced**

2. Enter the date, time of the last replacement, and propeller type (e.g., Rev 1 or Rev 2)
3. Select **Reset**

Once completed, Skydio Cloud will begin tracking the propeller flight hours.

As the drone nears its recommended interval for prop replacement, users should select the **Mark Replaced** button to update the date and time and restart the counter. This ensures pilots and admins keep drones mission-ready.

- When Skydio X10 props exceed 250 hours of use, a notification will appear under the **Issues** panel on the **Device Page**

Propeller hours are a tracking tool, not a substitute for regular inspections. For optimal performance, we recommend replacing propellers after 250 hours of flight time or if there is damage. If flying with multiple attachments in high-stress flight conditions, replace propellers at 100 hours of flight time.

The propeller hour tracking tool is enabled by default, however an opt-out setting gives administrators the ability to suppress these alerts organization-wide if they choose to opt out.

Integration Management

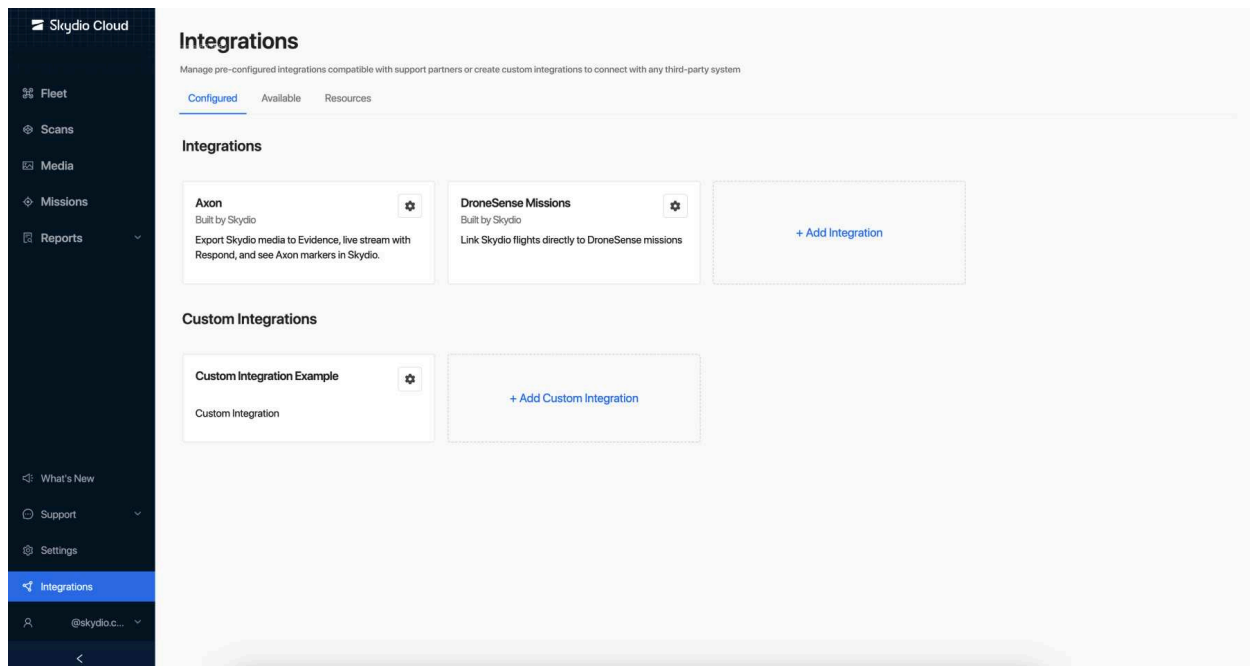
The **Integrations** menu in the left sidebar displays all available third-party applications that can be connected to the organization's account.

These integrations allow Organization Admins to automatically sync flight data, media, or real-time video streams to supported platforms. Integrations are grouped by category, including fleet management, inspection and photogrammetry, and public safety.

Some integrations may require a separate license or subscription. Users can select **Learn More** on any card to view setup details or contact the organization's account team.

The **Internal Integrations** tab is used to view any integrations the organization is currently using.

More guidance on Integrations can be found here: [Integrations section of our Support Site](#).



Configuring Alerts

INFO: Admin permission is required to configure alerts under Settings > Alerts. Cloud User, Remote Pilot, and Admin level users can all view alert history under Reports.

Users can set up alerts to be notified of device status, flight status, and other key events. Types of alerts include:

- Email
- Text message
- Webhook

Types of Events

| Event | Description |
|------------------------------|---|
| Device online status changed | A drone or Dock came online or went offline |
| Flight status changed | A flight started or ended |
| Flight telemetry available | A drone finishes uploading the telemetry log for a flight to Skydio Cloud and telemetry information is available via the API |
| Live stream status changed | A device begins or ends live streaming |
| Media available for scan | All media for a scan is uploaded to Skydio Cloud |
| Media file available | A media file is uploaded to Skydio Cloud |
| Mission incomplete | A remote operations mission was unsuccessful (e.g., failed launch, failed photo capture, abort low battery, failed post-mission action) |
| Person detected | A person was detected during the flight |
| Vehicle completed waypoint | A drone completed all of the remote operations mission actions at a |

| | |
|--|--|
| | waypoint |
| Vehicle fails to properly land in Dock | A drone did not successfully: land in Dock, begin charging, or Dock roof did not close |

Creating a Distribution List

Distribution Lists let you create and manage groups of recipients that can include both Skydio Cloud users and external contacts. This predefined group makes it easier to notify key stakeholders who aren't part of your Cloud organization, such as emergency responders, IT staff, or third-party observers.

Step 1 - Navigate to Settings > Distribution Lists

Step 2 - Select Add Distribution List

Name the list and optionally add a description.

Step 3 - Select Create

Step 4 - Add members

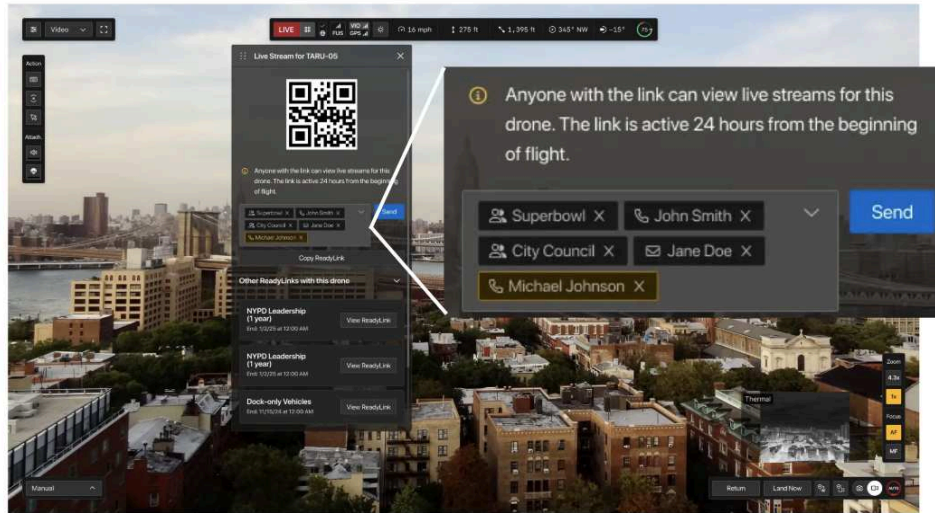
To begin adding members, select the name of the Distribution List. Select **Add Members** in the top right of the screen.

- Use the drop-down menu to select existing users in the organization
- To add external users, first add them to the organization by selecting the **External Contacts** tab in Settings > Distribution Lists

Sharing ReadyLinks to a Distribution List (Remote Flight Deck)

Step 1 - Select the QR code icon in the top bar

Step 2 - Under the QR Code, enter the name of the individual or Distribution List



Sharing ReadyLinks to a Distribution List (Skydio Cloud)

Step 1 - Navigate to Settings > Live Streaming

Step 2 - Locate the ReadyLink to be shared

Step 3 - Select the ellipsis menu (⋮) > Share

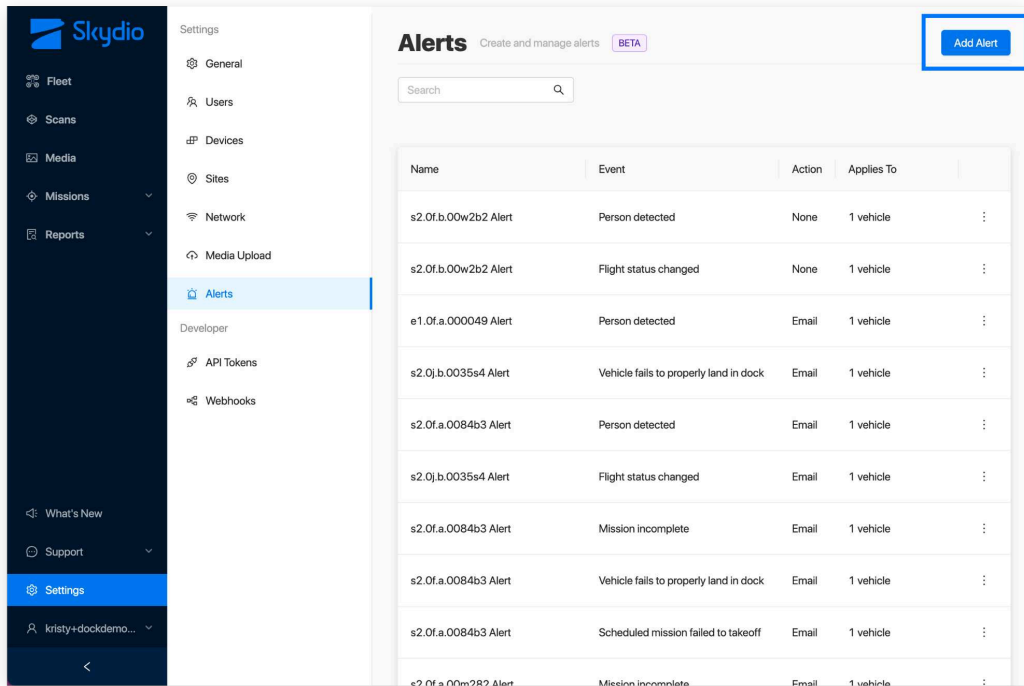
Step 4 - Add individuals or Distribution Lists in the Send to Recipients field

Creating an Alert

To create an alert users can follow these steps:

Step 1 - Navigate to Settings > Alerts

Step 2 - Select Add Alert



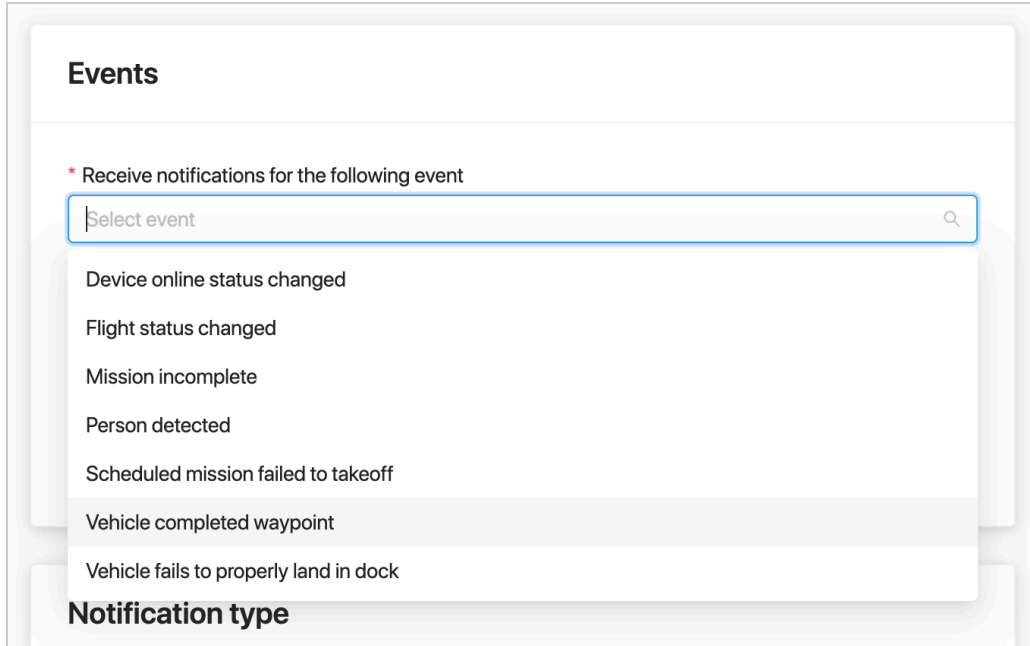
Step 3 - Name the alert

Add Alert

Receive notifications when event conditions are met

*** Alert Name**

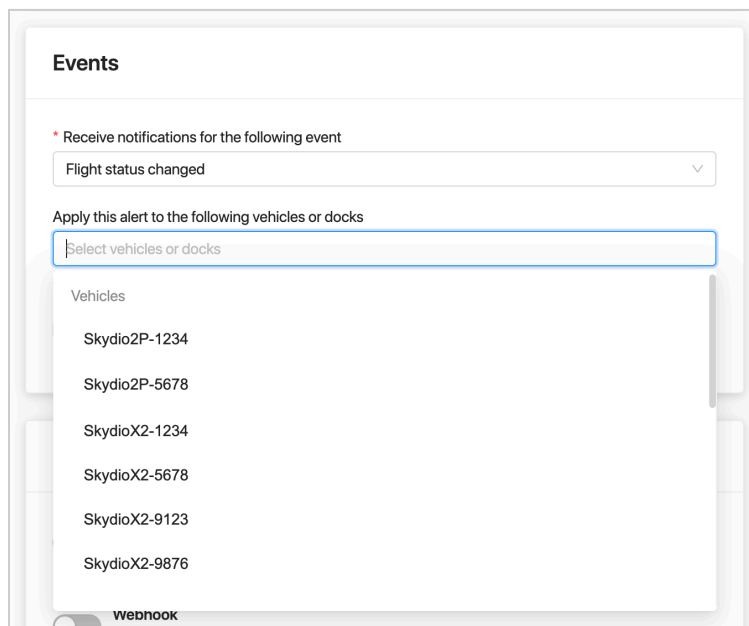
Step 4 - Select the event to receive notifications



Step 5 - Select devices to apply the alert to

Select the drones, Docks, or Sites that the alert should apply to. Organization Admins may select multiple or apply the alert to all of the vehicles, Docks or sites in the organization.

If **Apply to entire organization** is selected, the alert will automatically apply to new devices that are added.



Step 6 - Select notification type

- **Email notification** - Add users from within the organization. Does not support email addresses that are not part of the org
- **Webhook** - Select from existing webhooks

Cloud-based Encryption

Cloud-managed encryption is configured at the organization level in Skydio Cloud. An encryption key must be created before encrypted flight data can be unlocked automatically after Dock landings or decrypted locally by authorized users.

Only Organization Admins can perform this setup. Once cloud-managed encryption is initialized:

- Dock-based flights automatically unlock encrypted data after landing for Media Sync.
- Encrypted SD card data remains inaccessible to unauthorized users if the drone lands outside the Dock or is recovered elsewhere.

Step 1 - Navigate to Settings > Security

Step 2 - Locate the Key Management tab at the top of the page

Step 3 - Select Create a New Encryption Key

Step 4 - Enter a secure passphrase for the encryption key

- This passphrase is required to unlock encrypted data.
- **Securely store your passphrase** as Skydio cannot recover lost passphrases.

Step 5 - Select Create Key

- Once created, the key appears in the Key Management table with a status of **Active** and a **Key ID** and **Key Fingerprint** are listed.
- Only one active cloud-managed encryption key is used at a time.

Changing Encryption Passphrases

If you need to change the passphrase protecting the encryption key:

Step 1 - Select Rotate Active Passphrase

Step 2 - Enter a new secure passphrase

Step 3 - Select Rotate Passphrase

NOTE: After rotation, the previous passphrase will no longer work. Ensure all authorized users have access to the updated passphrase.

Decrypting Files

To decrypt files:

Step 1 - Navigate to Settings > Security

Step 2 - Select the File Decryption t

Step 3 - Enter the organization's encryption passphrase to unlock the keys

Step 4 - Select Unlock Keys

Step 5 - Choose encrypted files and select Decrypt Files

Developer Tools

More information regarding Developer Tools can be found here: [Skydio Cloud API Documentation](#).

API Tokens

Organization Admins can generate API tokens to support integrations with Skydio Cloud. These tokens grant programmatic access to the organization's data through the Skydio API.

How to generate an API Token

To generate an API Token, users should follow these steps:

Step 1 - Select Settings

Step 2 - Select API Tokens (located under the **Developer** heading)

Step 3 - Select Generate New Token

Step 4 - Name the token

The personal access token is only available during the active login session or until the page is refreshed.

Step 5 - Copy token

Edit the token name by selecting the edit icon.

Webhooks

Webhooks let Organization Admins automatically send data from Skydio Cloud to an external system via Skydio alerts. When a specific event occurs, such as completing a mission or uploading a flight log, Skydio Cloud can send a notification to a URL that the Organization Admin provides.

The receiving system must be set up to accept and process the webhook payloads. If the Organization Admin is unsure what to enter, they should work with the IT or development team of the organization.

Creating a Webhook

Administrators can follow these steps to create a webhook:

Step 1 - Select Settings

Step 2 - Select Webhooks (located under the **Developer** heading)

Step 3 - Select Create Webhook

Step 4 - Enter the webhook name and the destination URL where Skydio should send event data

Mission Planning in Skydio Cloud

Overview

To define preflight objectives, it is important for Remote Pilots to understand the operational objectives of the anticipated flight, as well as all resources, flight crew members and information required for a successful operation. Included in this planning is the flight path or route the drone will take from its Dock-based origin to various waypoints.

Mission planning is a critical phase of drone operations that prepares the Remote Pilot for success.

Once the route of the flight has been determined, Remote Pilots can chart these routes by using the Missions tab in Skydio Cloud to create and manage pre-planned autonomous flights for Dock-based drones. Missions can be created by manually flying the drone or using a map to set waypoints and define scan areas. JSON and KML files can also be imported directly into Skydio Cloud. JSON files must follow Skydio's Mission schema, some examples of which can be found in our [API documentation](#).

Missions can be remotely piloted on-demand, scheduled to be remotely piloted at a specific time, or set to be remotely piloted on a recurring basis. When a Mission is remotely piloted, the drone will launch and automatically execute its defined actions, such as flying to pre-set waypoints or scanning an area. After landing, media will upload to Skydio Cloud automatically. Media can be viewed in the Media tab in Skydio Cloud once upload is complete.

WARNING

Risk of serious injury from loss of flight control.

When running Scheduled Missions, the RPIC must directly monitor all phases of the flight via Remote Flight Deck. Loss of control of the sUAS may lead to serious bodily harm of individuals in the operating environment.

There are multiple ways to create a new Mission:

- Waypoint (Map)
- Live
- Map Capture

- From a file

To get started in Mission Planner, users should select the **Missions** tab in the left sidebar of Skydio Cloud and select **Create New Mission**.

Users can view step-by-step instructions for each Mission type in the sections below.

The screenshot shows a 'Create New Mission' dialog box with the following options:

- Waypoints**
Use a map to set waypoints
- Live**
Fly a drone to set waypoints
- Map Capture**
Use a map to set scan region
- From File**
Import JSON or KML file

Buttons: Cancel, Next

NOTE: Creating a Site is strongly recommended when using Dock-based missions, as it provides essential safety and airspace controls. If Sites are not configured, contact the Organization Administrator.

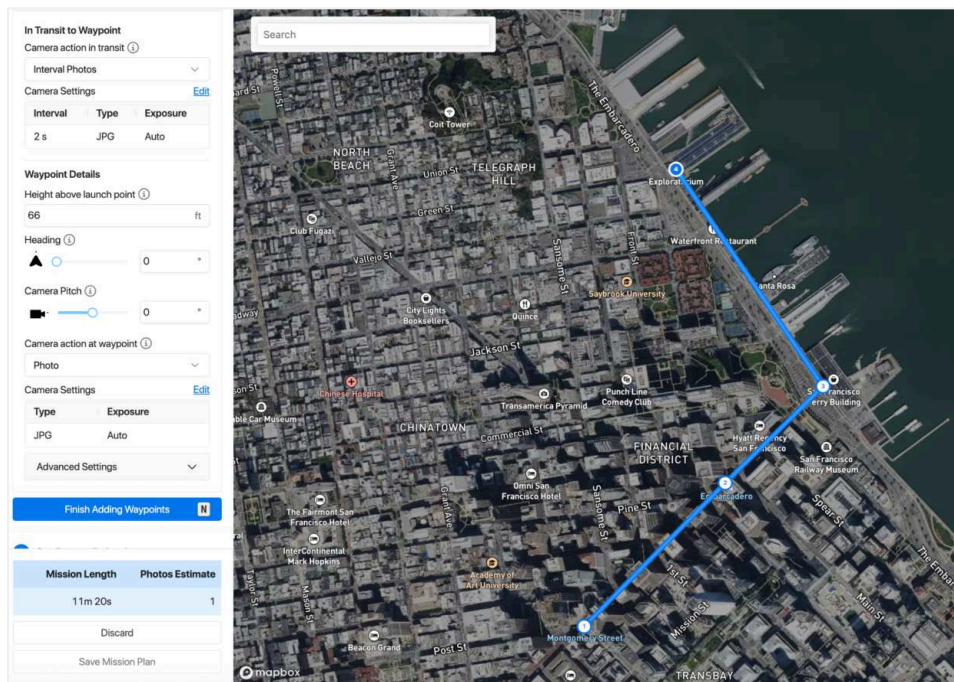
Mission Types

NOTE: All Missions launched from Dock are limited to a single battery. Once the drone lands, the Mission is marked **Complete**. If for some reason all Waypoints were not reached, it will be marked **Interrupted**. At this time, there is no way to resume a partially completed Mission from Dock. If possible, we recommend breaking up large missions into smaller segments.

Waypoint (Map)

Waypoint (Map) missions are set preflight, using a Map View

Waypoint (Map) Missions are best used when the coordinates associated with a Mission objective can be determined from a map or are known beforehand.



NOTE: Map-based Mission planning is subject to inaccuracies in satellite imagery

In this view, the map in Skydio Cloud can be used to set and edit waypoints, set the camera action (photos, panoramas, etc), and set the camera pose at each Waypoint.

When a Waypoint mission is run, the drone will launch, automatically fly to the Waypoints that were set and perform the configured actions.

- Example use cases: Perimeter patrols, inspections, or any scenario where the locations are known ahead of time and map-based inaccuracies are acceptable

Live Missions

WARNING

Risk of unintended flight or serious injury.

Opening Live Mission Planner initiates a live flight. Ensure all preflight procedures are completed and all safety guidelines are followed before and during operation.

NOTE: *Missions that rely on Skydio's Visual Positioning System (VPS) must be planned live. These depend on real-time visual context rather than GPS-based waypoints.*

Live Missions are best used when the GPS coordinates of the waypoints are not known precisely enough, or in environments where GPS is not consistently accessible and the Mission should use Skydio's VPS (Visual Positioning System) instead. Live Missions should be used if the Waypoint camera poses need to be finely tuned or matched to real world assets.

With Live Missions, the Remote Pilot will remotely fly the drone to each Waypoint they want to create. After creating a Waypoint, it will automatically save the drone's current location and pose (gimbal angle and heading).

Remote Pilots can use the camera view and Map View to help position the drone to set Waypoints. Augmented reality (AR) markers help visualize each waypoint.

After creating all of Waypoints and the Live Mission has been saved, the drone will be able to revisit and repeat this Mission.

Editing Waypoints

Once a Live Waypoints mission is saved, Pilots can then edit a Waypoint by revisiting the Waypoint during live flight or by using the Waypoint (Map) viewer.

- Example use cases: Substation inspections, gathering aerial photos of pole-mounted insulators, scenarios where the asset's location isn't obvious from the map, or GPS performance is limited and Pilots need to rely on visual positioning by using the VPS Navigation Mode

Map Capture

Defines a scan area preflight, using a Map View

In this Mission, a Map View is used to define a scan area and configure the scan settings preflight, then the **Map Capture Mission** is saved.

When a Map Capture mission is run, Skydio X10 will launch and perform automated passes along the planned flight legs to map the entire area. The drone will then land and automatically upload the Media to Skydio Cloud. View media in the Media tab or Scans tab.

- Example use cases: Stockpile monitoring in mining, earth-moving estimations in construction, or any situation that requires orthographic reconstructions

Pre-planned Map Captures in Skydio Cloud can be shared with specific Pilots for use on the X10 Controller. From the Missions tab:

1. Navigate to the Map Capture and select the vertical ellipses
2. Select Share
3. Enter specific Pilots

For more information on sharing pre-planned Map Capture missions with X10 Controllers, review the Skydio X10 Operator Manual.

NOTE: *To create reconstructions, users must utilize a third party photogrammetry provider.*

From File

Imports a Map file (JSON/KML) to set Waypoints preflight, using a Map View

NOTE: *If users plan to upload a JSON file or for more details on the JSON file structure, reach out to Skydio Support to help minimize operational risks.*

Similar to a Waypoints (Map) mission, but instead of manually placing each point, users can import a pre-defined set of coordinates from a JSON or KML file. A JSON file must be in Skydio's Mission Documents format. It can be exported from an existing mission in Skydio Cloud or uploaded using Skydio's API.

This is especially useful if users have an existing database of image capture locations or if they want to preconfigure Mission details like altitude, speed, or Map Capture parameters directly in a JSON spec.

Planning Missions

Sites

Remote Pilots, Cloud Users and Organization Admins have the ability to create a Mission, but only users with Org Admin-level permissions can create a Site.

Site creation instructions can be found in the **Initialization** section (*Initialization > Configuring Areas of Operations*).

Creating a Waypoints (Map) Mission

To create a Waypoints (Map) Mission, users should take the following steps:

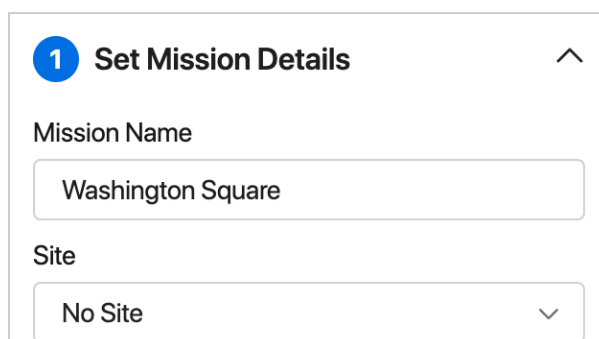
Step 1 - Log in to Skydio Cloud

Visit cloud.skydio.com

Step 2 - Select Missions > Create New Mission > Waypoints

Step 3 - Select Next

Step 4 - Set Mission Details



1 Set Mission Details ^

Mission Name

Site

Enter the following information:

- **Name** your Mission
- Select a **Site** (recommended; optional); See *Initialization > Configuring Areas of Operation* for more information
- Use the drop-down menu to **select the Dock or drone** you want

this mission to run from. If you select a Site, you will choose a Dock. If no Site is selected, you will choose a drone (the sensor package type is displayed).

- **Enable Strobe** (recommended; optional). Some waivers require strobe lights. Always review your waiver requirements before flying.
- Select **Finish Setting Details**.

NOTE: If you use a Site, you can only fly with flight systems that have been added to the Site.

Step 5 - Select Set Waypoints

Click on the map to add a new waypoint.

Step 6 - Configure Waypoint settings

2 Set Waypoints

Waypoint 1

In Transit to Waypoint

Camera action in transit ⓘ

None

Waypoint Details

Height above launch point ⓘ

52 ft

Heading ⓘ

0 °

Camera Pitch ⓘ

0 °

Camera action at waypoint ⓘ

Photo

Camera Settings [Edit](#)

| Type | Exposure |
|------|----------|
| JPG | Auto |

Advanced Settings

Finish Adding Waypoints

Configure the following settings:

A) Optionally rename the Waypoint

B) Add the in-transit camera actions

This is the action the camera will perform while traveling to this Waypoint:

- Record Video
- None
- Interval Photos (default is 2 seconds)

To edit Interval Photo or Record Video settings, select **Edit**.

C) Set the Waypoint Details

Height above launch - Refers to the drone's altitude measured relative to the launch point

Heading - The direction the drone will face

Camera Pitch - The upward/downward angle of your camera

Camera action at waypoint - This is the action the camera will perform after arriving at the Waypoint:

- None

- Photo
- Panorama

To edit Photo or Panorama settings, select Edit

Each panorama will require about 10-60 seconds to be stitched after landing and will prevent flight until processing is complete. Captured panoramas are saved to the media tab—easily viewable in third-party apps or downloadable as individual images.

D) Select Advanced Settings to refine settings

- Speed - horizontal speed of the drone
- Heading Mode in transit (see below)
- Latitude
- Longitude
- Time to pause at Waypoint

Heading Mode refers to the direction in which an aircraft is pointed, expressed in degrees from true north

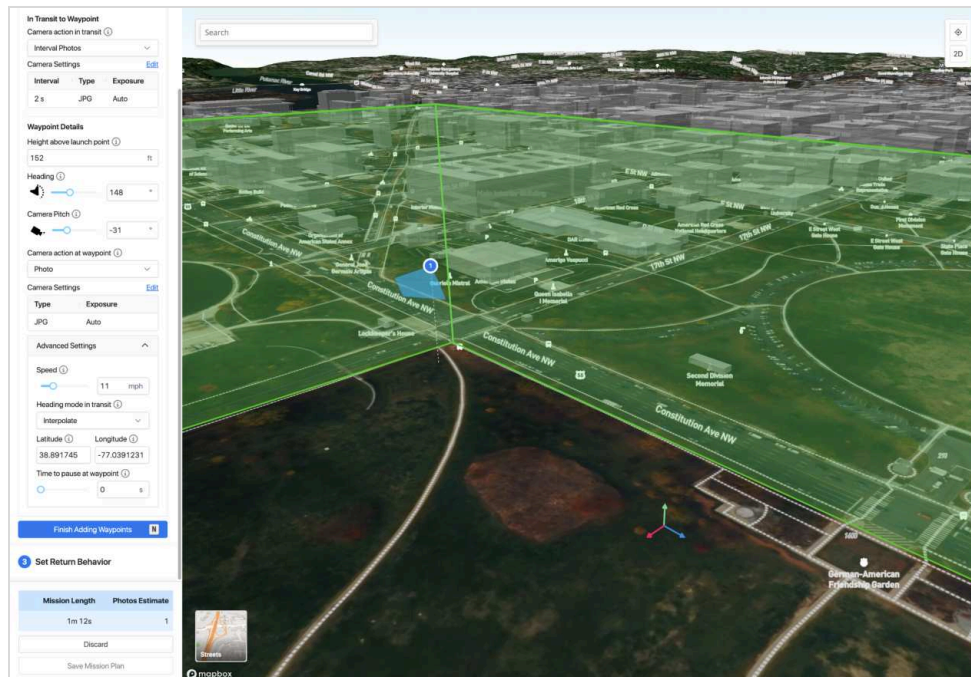
- **Custom** - Set your own fixed heading (set the heading of the drone and the camera pitch)
- **Interpolate** - Heading smoothly transitions between waypoints
- **Along Path** - Vehicle heading is oriented to the direction of travel

Step 7 - Repeat this process for each Waypoint in your mission

- Click on the map to add a new Waypoint
- New Waypoints will inherit the settings of the previous waypoint
- Select each Waypoint individually to adjust its settings
- Click and drag each waypoint on the map to adjust the location if needed
- The mission length will populate and update on-screen as you adjust your waypoints

Tips

- Select **3D** in the top right to enter a 3D view of the map, allowing you to verify the heights of your Waypoints
- Click on a Waypoint and select **ALT** or **Option** to adjust the height
- Select anywhere along the blue line to add a Waypoint
- The camera icon next to the Waypoint's name denotes that a photo will be taken at that Waypoint



Step 8 - Set Return Behavior

Your drone will default to your organization's flight policy defaults, so you only need to reconfigure these settings if you wish to deviate from your default settings.

Set the **speed** at which the drone will return.

3 Set Return Behavior

Return Speed
 11 mph

If Mission Interrupted

Return Type

Return Height Behavior

Return Height
 100 ft

Wait Before Return on Lost Connection 60 s

Upon Mission Completion

Return Type

Finish Setting Return Behavior

Set the return behaviors in the event your mission is interrupted:

Return Type

- Up and over - which will fly from the last completed Waypoint to the Dock at the height specified
- Backtrack - which will reverse the flight path of the drone to return safely

Return Height Behavior

- Above Launch: The height is relative to the takeoff location, which is typically the dock
- Above Vehicle: The height is relative to the current location of the vehicle when the return is triggered

Return Height

- The altitude at which the drone will ascend to before returning, relative to the Return Height Behavior you set

When your mission completes you can have the drone:

- Copy the return behavior you just specified above or
- Fly directly to the Dock

NOTE: Flying directly to the Dock requires a clear line of sight between the last Waypoint and the Dock. This setting only applies at the end of a completed Mission.

Step 9 - Save Mission Plan

Your Mission will appear in the Missions library.

Creating a Live Waypoints Mission

CAUTION

Risk of unintended flight or serious injury.

Opening Live Mission Planner initiates a live flight. Ensure all preflight procedures are completed and all safety guidelines are followed before and during operation.

To create a Live Waypoints Mission, users should take the following steps:

Step 1 - Log in to Skydio Cloud

Visit cloud.skydio.com

Step 2 - Select Missions > Create New Mission > Live

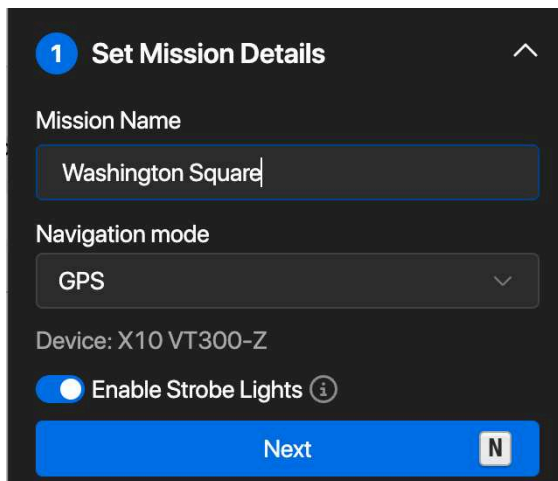
Step 3 - Select Next

Step 4 - Select the flight system you wish to use

Step 5 - Select Open Live Mission Planner

Step 6 - Set Mission Details

Configure Mission settings before launching.



A) Set Mission Name

B) Select Navigation Mode

GPS missions can be launched from any nearby Dock. GPS is typically used for large outdoor spaces, or when you need flexibility in your launch point.

C) VPS missions must be run from the same Dock they were created on, since the drone saves a visual map and waypoints relative to its starting location. This type of navigation is typically used where GPS signal is poor or when

consistent image framing is important—such as before-and-after comparisons.

D) Enable Strobe Lights

Some waivers require strobe lights. Always review your waiver requirements before flying.

Step 7 - Select Next

Step 8 - Launch

Wait as the drone initializes, then select **Launch**. If GPS was selected as your navigation mode, you may be prompted to fly around to initialize GPS heading. Fly laterally and increase altitude if it is safe to do so.

Step 9 - Fly to the location of your first Waypoint

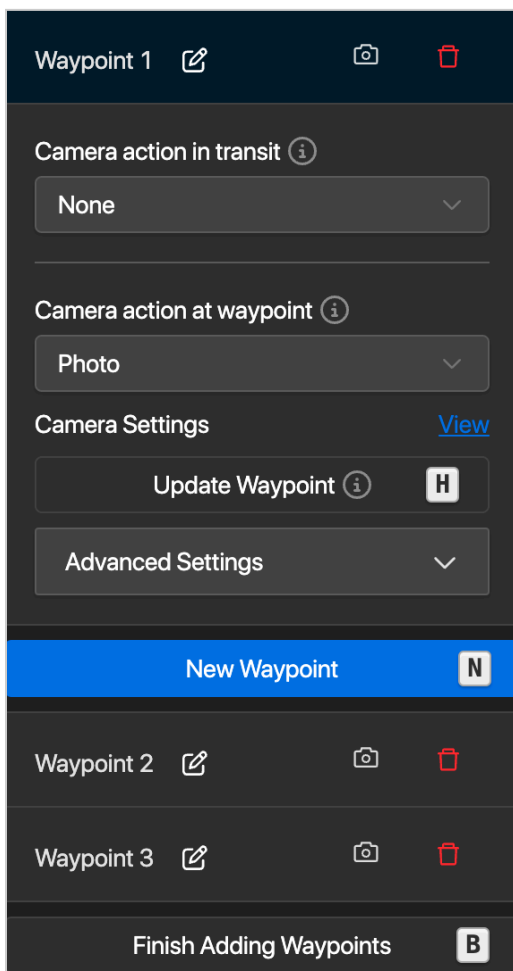
Position the drone to the desired heading, location, and gimbal angle.

Step 10 - Select New Waypoint (N) and configure settings

When you select **New Waypoint (N)**, the current drone orientation will be used to set the Waypoint.

An Augmented Reality (AR) Overlay will appear, showing you the Waypoint's location.

- **Configure the following settings:**



A) Optionally rename the Waypoint by selecting the Edit icon

B) Set the camera actions while in transit to the Waypoint

This is the action the camera will perform while traveling between Waypoints:

- Record Video
- None
- Interval Photos (default is 2 seconds)

To edit Photo or Video settings, select the View button next to Camera Settings.

C) Set the camera actions once arrived at the Waypoint

This is the action the camera will perform after arriving at the Waypoint:

- None
- Photo
- Panorama

If you change the drone position or camera settings during this step, select **Update Waypoint (H)** to apply the new settings or position.

D) Select Advanced Settings to refine in-transit settings

- Speed - horizontal speed of the drone
- Heading Mode in transit (see below)
- Time to pause at Waypoint

Heading Mode refers to the direction in which an aircraft is pointed, expressed in degrees from true north

- **Custom** - Set your own fixed heading and camera pitch
- **Interpolate** - Heading smoothly transitions between waypoints
- **Along Path** - Vehicle heading is oriented to the direction of travel

Editing a Waypoint

If you need to edit an existing Waypoint:

- Select it within the workflow panel on the left
- Select **Fly to and Edit Waypoint**
- Skydio X10 will automatically fly to the Waypoint
- Once it arrives, you will be able to edit the Waypoint settings
- Select Update Waypoint (H) to apply the new settings

Step 11 - Fly to the next Waypoint

When you have finished configuring your first Waypoint, fly to the location of your next Waypoint you wish to set.

Step 12 - Continue adding Waypoints

After arriving at the next Waypoint's location, select **New Waypoint**.

- The current drone orientation and camera settings will be used to set the Waypoint
- All other settings will be copied from the previous waypoint

Repeat Step 10 and continue setting Waypoints until your mission is complete.

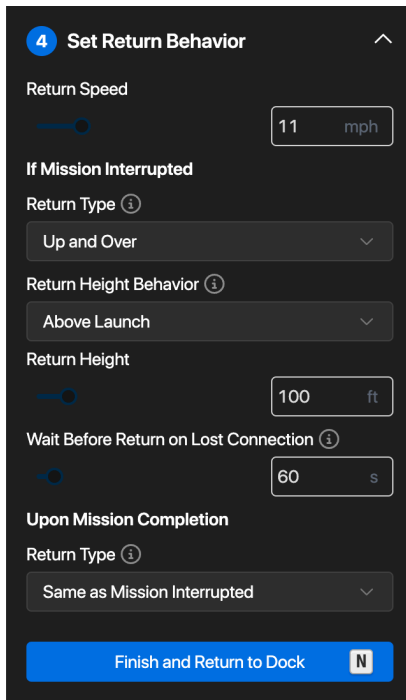
Step 13 - Select Finish Adding Waypoints (B)

Step 14 - Set Return Behavior

Your drone will default to your organization's flight policy defaults, so you only need to reconfigure these settings if you wish to deviate from your default settings.

Set the **speed** at which the drone will return.

Set the return behaviors in the event your mission is interrupted:



Return Type

- Up and over - which will fly from the last completed Waypoint to the Dock at the height specified
- Backtrack - which will reverse the flight path of the drone to return safely

Return Height Behavior

- Above Launch: The height is relative to the takeoff location, which is typically the dock
- Above Vehicle: The height is relative to the current location of the vehicle when the return is triggered

Return Height

- The altitude at which the drone will ascend to before returning, relative to the Return Height Behavior you set

Wait Before Return on Lost Connection

- Set the time you want the drone to hover and wait to try and regain connection before returning.

When your mission completes you can have the drone:

- Copy the return behavior you just specified above or
- Fly directly to the Dock

NOTE: *Flying directly to the Dock requires a clear line of sight between the last Waypoint and the Dock. This setting only applies at the end of a completed Mission.*

Step 15 - Select Finish and Return to Dock

After you have added all of your Waypoints and configured the settings for each one, the drone will return to the Dock.

After the drone returns and lands, the Mission will be saved. For VPS missions the VPS must be uploaded to Skydio Cloud before the mission can run (which may take several minutes).

Step 16 - Setup Complete

Select **View All Missions** to view this Mission in Skydio Cloud.

Creating a Map Capture Mission

To create a Map Capture Mission, users should take the following steps:

Step 1 - Log in to Skydio Cloud

Visit cloud.skydio.com

Step 2 - Select Missions > Create New Mission > Map Capture

Step 3 - Select Next

Step 4 - Set Mission Details

- **Name your Mission**
- **Select your Site**
 - Use the drop-down menu to **select the Dock or drone** you want this mission to run from
 - If you selected a Site, you will choose a Dock
 - If no Site is selected, you will choose a drone (the sensor package type is displayed)
- Set the **Height Measured Above**
 - Sets the reference for measuring altitude while scanning
 - **Ground (AGL), also referred to as Terrain Follow, is recommended for Map Captures that will be performed in regions with significant terrain variation.** For any Map Capture mission over variable-elevation terrain, variance in AGL will yield inconsistent Sidelap, Overlap, and GSD, which will impact reconstruction accuracy.
- Select **Finish Setting Details**

1 Set Mission Details ⌵

Mission Name

Map Capture Mission 12/11/2025 14:44:32

Site

No Site ⌵

Device

X10 VT300-Z ⌵

Height Measured Above ⓘ

Launch (HAL) ⌵

Finish Setting Details **N**

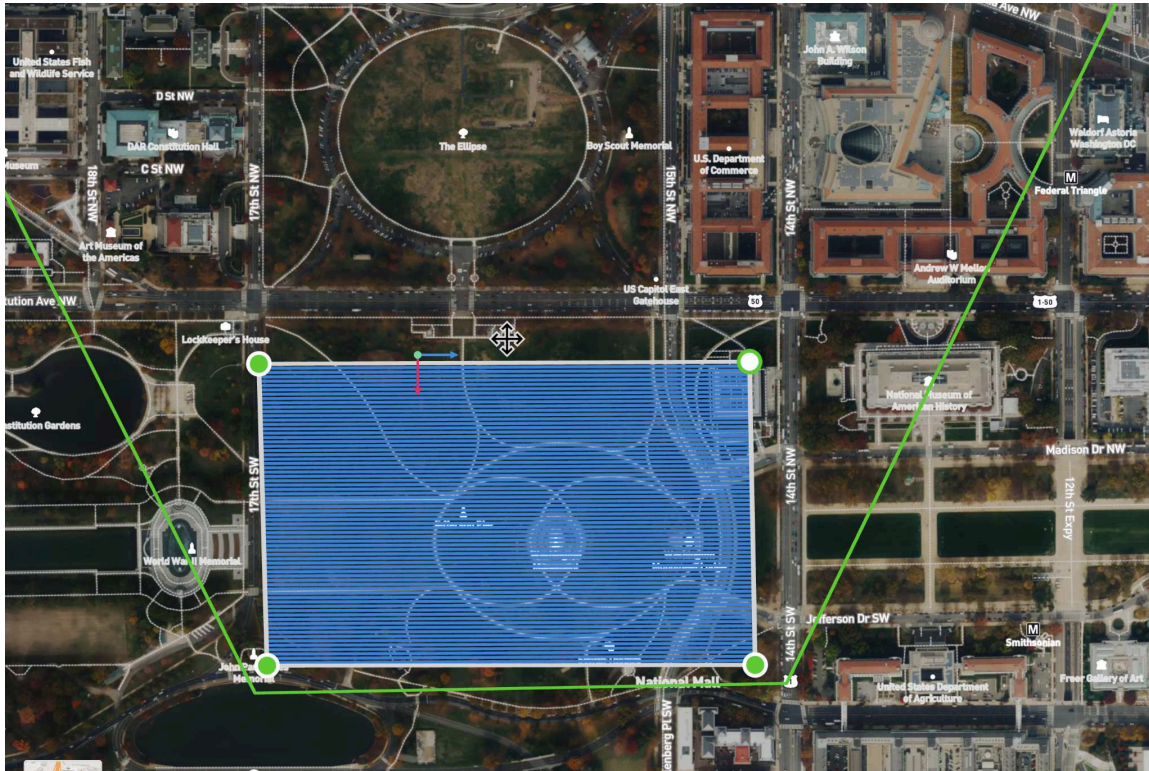
2 Initialize Map Capture

3 Set Scan Settings

4 Set Return Behavior

Step 5 - Initialize Map Capture

Step 6 - Add the Outer Boundary



Select **Add Outer Boundary**.

- If this box is grayed out, zoom in on the map
- Adjust the boundary points by dragging the green dots to surround the area you wish to scan.
- If any part of your Map Capture area falls outside the defined Site Zone, the scan area will turn red and you won't be able to save the mission.

Step 7 - Set Scan Settings

For a detailed overview, read [Understanding Map Capture Settings](#).

Use this menu to set specific settings for your scan:

3 Set Scan Settings ^

Drag the pillars on map to set your boundaries

Height above Launch Point ⓘ

66 ft

Gimbal Angle ⓘ

-90 °

Camera Settings [Edit](#)

| Camera | Thermal | Exposure |
|------------|---------|----------|
| X10 Narrow | Off | Auto |

Overlap

70 %

Sidelap

70 %

Crosshatch ⓘ

Perimeter ⓘ

Stop for Photo ⓘ

Maximum Speed

11 mph

Strict Boundaries ⓘ

Custom Flight Direction ⓘ

Use Perpendicular Heading ⓘ

Finish Setting Scan Settings N

A) Set the **Height Above Launch**, which is the altitude the drone will maintain during the Map Capture. This corresponds directly to Ground Sample Distance (GSD). Lower height means more photos taken and higher resolution, but an increased total scan time.

B) Set the **Gimbal Angle**

C) Set **Camera Settings**.

The Camera Settings can only be edited during the initial Map Capture setup phase. Once a Map Capture Mission is created, you will not be able to edit camera settings.

D) Set your **Overlap** and **Sidelap**

- High Overlap and Sidelap percentages are recommended for complex scenes
- Overlap: 80% or more
- Sidelap: 70% or more

E) Enable **Crosshatch** to add perpendicular passes to your flight legs and enhance reconstruction quality

F) Enable or disable the **Perimeter**. When enabled, the drone will fly along the perimeter of the scan area to capture additional photos. This helps improve reconstruction quality.

G) Enable or disable **Stop for Photo**. When enabled, the drone will stop for each photo, increasing flight time but reducing the likelihood of motion blur. This setting is not recommended when scanning at high speeds.

H) Enable or disable **Strict Boundaries**. Set this if you want the drone to stay within the Map Capture boundaries you set.

I) Set the **maximum flight speed** while scanning.

J) Enable or disable **Custom Flight Direction**.

K) Enable or disable **Use Perpendicular Heading**.

As you configure your settings, you will see **flight time estimates** at the bottom of the Mission Planner.

Step 8 - Set Return Behaviors

- Your drone will default to your organization's flight policy defaults, so you only need to reconfigure these settings if you wish to deviate from your default settings.
- Set the **speed** at which the drone will return.
- **If your mission is interrupted, you can select between:**
 - Up and over - which will fly from the last completed Waypoint to the Dock at the height specified or
 - Backtrack - which will re-trace the flight path back to the Dock
- **Return Height Behavior**
 - Above Launch: The height is relative to the takeoff location, which is typically the dock
 - Above Vehicle: The height is relative to the current location of the vehicle when the return is triggered
- **Return Height**
 - The altitude at which the drone will ascend to before returning, relative to the Return Height Behavior you set
- **Wait Before Return on Lost Connection**
 - Set the amount of time the drone will hover to try and regain connection before performing your Lost Connection behaviors
- **When your mission completes you can have the drone:**
 - Copy the return behavior you just specified above or
 - Fly directly to the Dock

Step 9 - Save the Mission Plan

How to create a Waypoints Mission from a File

You must have JSON or KML files ready for upload to continue creating a mission.

To create a Waypoints Mission from a File, users should take the following steps:

Step 1 - Log in to Skydio Cloud

Visit cloud.skydio.com

Step 2 - Select Missions > Create New Mission > From File

Step 3 - Select Next

Step 4 - Select the JSON or KML file you wish to use for your mission

Step 5 - Select Open

Step 6 - Name the Mission

NOTE: Existing Sites cannot be selected when importing JSON/KML files.

Step 7 - Follow the setup instructions for [Planning a Mission: Waypoints \(Map\)](#)

Editing a Mission

To edit a Mission, users should take the following steps:

Step 1 - Log in to Skydio Cloud

Visit cloud.skydio.com

Step 2 - Select Missions

Located in the left sidebar.

Find the Mission that needs editing and select the **ellipses** on the right.

Step 3 - Select Edit

If you are editing a **Waypoint Mission**, two options will appear:

- **Edit on Map** - allows you to edit Waypoints preflight in Skydio Cloud
- **Edit while Flying** - allows you to edit the Waypoints during a live flight

If you are editing a **Map Capture Mission**, the scan setup workflow will appear, allowing you to change and save any of the settings for your scan.

- Drag the green dots to relocate scan boundaries
- Select **Save Mission Plan** when the updates are complete

NOTE: For Vision-based Live Missions, we recommend you edit Waypoints during live flight.

Edit on Map

Step 1 - Select Edit on Map

Select **Next**.

Step 2 - Adjust Waypoints or Return Behavior

Select a Waypoint or use the drop-down next to **Set Waypoints** to open and edit its settings.

To change a Waypoint's settings, either select it on the map or open it from the side panel.

Step 3 - Select Save Mission Plan

After you have reconfigured your Waypoint settings, save your updates.

NOTE: For Vision-based Live Missions, we recommend you edit Waypoints during live flight.

Edit while Flying

Step 1 - Select Edit While Flying

Select **Next**.

Step 2 - Select a drone for this Mission

Step 3 - Select Edit Mission

Step 4 - Launch

CAUTION

Risk of unintended flight or serious injury.

Opening Live Mission Planner initiates a live flight. Ensure all preflight procedures are completed and all safety guidelines are followed before and during operation.

Step 5 - Edit Waypoint(s)

After launching, the drone will pause.

- Use the **Previous** and **Next** buttons to automatically fly to the Waypoint that requires editing
- Alternatively, click on the waypoint you would like to edit and press Fly to And Edit Waypoint

When the drone arrives, the settings will appear

- Use the settings panel to adjust your settings
- To reorient a Waypoint, reposition the drone to face the desired direction, then press Update Waypoint

NOTE: You must visit all waypoints in an edit session in order to save your changes. Recommend flying to the last waypoint before finishing editing the mission.

Running a Mission On-demand

NOTE: Before Running a Mission, the Remote Pilot should ensure they have completed all appropriate Preflight steps and are following all Safety Guidelines at all times.

To run a Mission on-demand, users should take the following steps:

Step 1 - Log in to Skydio Cloud

Visit cloud.skydio.com

Step 2 - Open the Missions Library

Select **Missions** in the left sidebar.

Step 3 - Select Run Mission

Locate the Mission you want to activate and select the **Run Mission** button.

Enter Remote Flight Deck. Verify that the Mission Name is listed on the left side of Remote Flight Deck.

Select Launch. Your Mission will begin automatically.

Step 4 - Supervise Flight in Remote Flight Deck

Be sure your Mission is running as expected and supervise the flight while it is running. Be sure you are ready to commandeer the drone if necessary.

Note, some Remote Flight Deck functions may be limited while the drone is running a Mission. For example, you can view your Return settings within Remote Flight Deck but you cannot change them once a Mission is underway.

When flying a Mission, Obstacle Avoidance is set to standard.

If you need to manually capture photos during a Map Capture or other Mission, you can pause the mission and capture photos manually using the shutter button, then resume your scan or Mission.

Step 5 - The drone will return automatically once the Mission is complete

When the Mission is complete, the drone will automatically Return to the Dock. Once the drone lands in the Dock, Media upload will begin automatically.

Visit the Scans tab or Media tab to view media from this Mission.

You can view completed Missions by selecting Missions > Runs.

Scheduling Missions

WARNING

Risk of serious injury from loss of flight control.

When running Scheduled Missions, the RPIC must directly monitor all phases of the flight via Remote Flight Deck. Loss of control of the sUAS may lead to serious bodily harm of individuals in the operating environment.

Scheduling missions allows you to automate recurring or time-specific flights. Whether you're capturing infrastructure at regular intervals, monitoring a site over time, scheduling helps ensure consistency and efficiency.

Once scheduled, missions will automatically launch from the assigned Dock at the specified time. An RPIC should be present at the time to launch to monitor the entire flight.

To schedule a Mission, users should take the following steps:

Step 1 - Log in to Skydio Cloud

Visit cloud.skydio.com

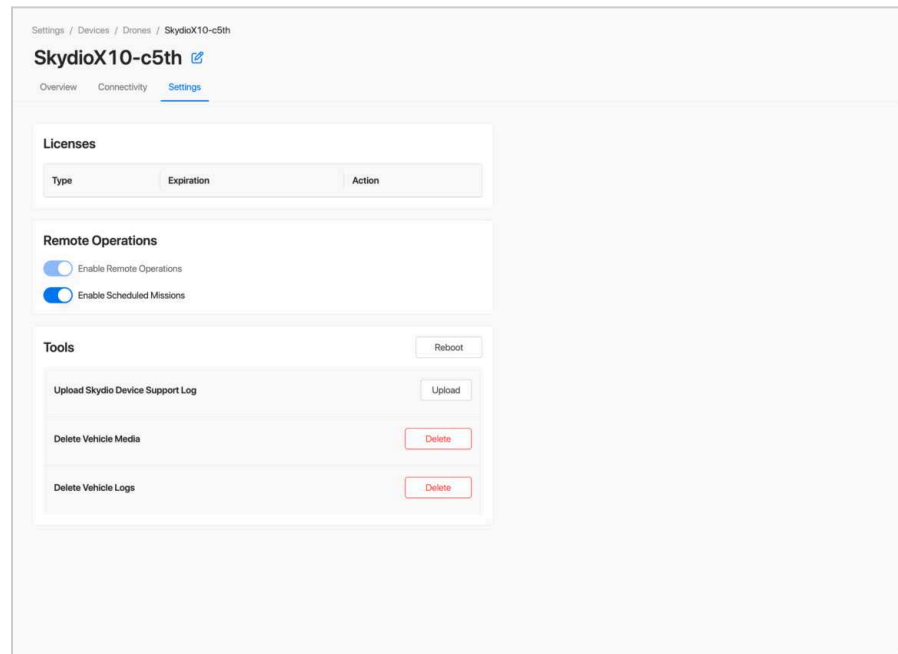
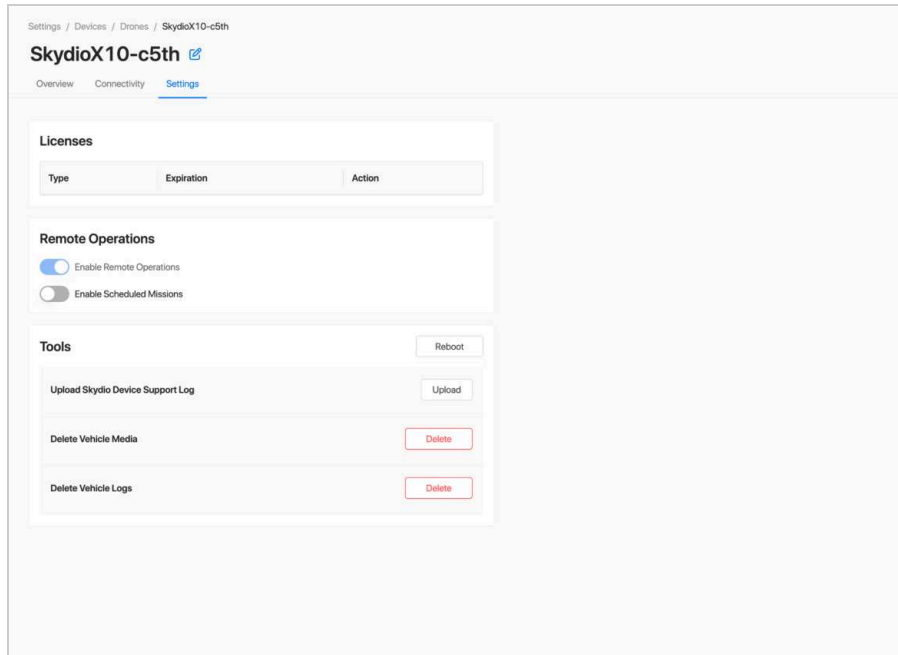
Step 2 - Select Settings > Devices

Step 3 - Select a drone and enable scheduled Missions

Select the name of the drone that is linked to the Dock you plan to use for this Mission.

From the Drone Device Page, select the **Settings tab**.

Enable the toggle called **Enable Scheduled Missions**.



Step 4 - Navigate to Missions

Located in the left sidebar.

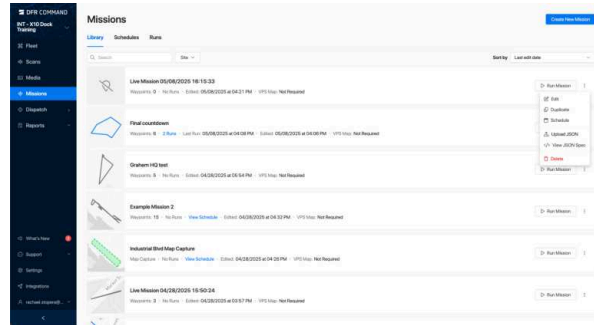
Step 5 - Be sure this Mission is assigned a Site

Select the ellipses next to the Mission you plan to Schedule and select Edit.

Be sure the correct Site is selected. You cannot change a site once it has been set.

Step 6 - Set the Schedule

Select the ellipses next to the Mission you plan to schedule and select Schedule



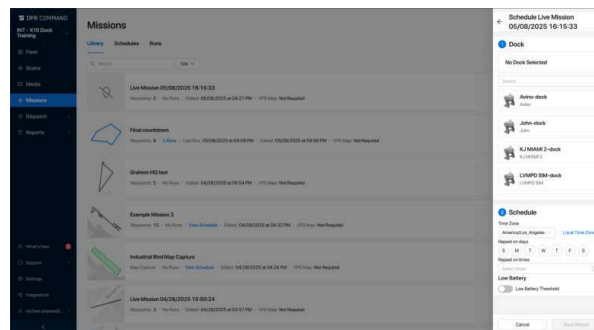
Step 6 - Configure Schedule Settings

A menu will appear in the right sidebar:

- Select the Dock you wish to use for this scheduled Mission
- Set the Time Zone (automatically set to the local time zone)
- Select which days you want this Mission to repeat
- Select the times you want this Mission to repeat

Toggle on **Low Battery Threshold** to adjust when the drone initiates Low Battery Behavior.

- When toggled off, the Low Battery Threshold is set to 25%



Step 7 - Select Save Mission

Step 8 - Assign the RPIC to the Site

Select Settings > Sites > Navigate to your Site that you are using for Scheduled Missions. Select the ellipses next to the site and select "Assign Remote Pilot".

Assign the Remote Pilot you wish to use then select save.

Note: When this Mission is ready to be run, the RPIC will need to have their phone setup to approve the Remote ID request.

The RPIC must be stationed at their Remote Flight Deck Station and supervise the flight.

Step 8 - Scheduling Complete

To view all scheduled Missions, navigate to **Missions > Schedules**.

You can also edit or activate/deactivate schedules from this screen.

Executing a Scheduled Mission

WARNING

Risk of serious injury from loss of flight control.

When running Scheduled Missions, the RPIC must directly monitor all phases of the flight via Remote Flight Deck. Loss of control of the sUAS may lead to serious bodily harm of individuals in the operating environment.

NOTE: *If the organization has Single Operations Center enabled, the RPIC will not be required to approve Remote ID on their device, however they are required to be present at the correct physical location of their Remote Piloting Station and are required to monitor to the flight (with access to Remote Flight Deck) in the event the RPIC needs to Commandeer the drone.*

To execute a scheduled Mission, users should take the following steps:

Step 1 - Log in to Skydio Cloud at least 5 minutes prior to the Scheduled Mission

Visit cloud.skydio.com

Step 2 - Open the Missions Library

Select **Missions** in the left sidebar.

Step 3 - Select the Schedules tab at the top of the screen

From the Mission you want to run, select the **Vehicle** associated with that mission. If no Flight System is assigned, select Edit and assign the Dock Flight System.

Step 4 - Approve Remote ID in the Skydio Enterprise App

Open the Skydio Enterprise App and login using the same email login that you are using in Skydio Cloud.

Approve Remote ID.

Step 5 - Monitor Launch

Once Remote ID is approved, the drone will launch automatically and execute the mission.

Step 6 - Monitor Mission

As the RPIC you are responsible for supervising scheduled autonomous missions. Be sure you are supervising this flight as it is being performed and make sure you have access to Remote Flight Deck to commandeer this flight if needed.

Note, some Remote Flight Deck functions may be limited while the drone is running a Mission. For example, you can view your Return settings within Remote Flight Deck but you cannot change them once a Mission is underway.

If you need to manually capture photos during a Map Capture or other Mission, you can pause the mission and capture photos manually using the shutter button, then resume your scan or Mission.

Step 7 - Monitor Return and Launch

When the Mission is complete, the drone will automatically Return to the Dock. Once the drone lands in the Dock, Media upload will begin automatically.

Visit the Scans tab or Media tab to view media from this Mission.

You can view completed Missions by selecting Missions > Runs.

For more information on flying with Remote Flight Deck, visit *Flight Operations*.

Viewing and Sharing Media from a Mission

To view and share media from a Mission, users should take the following steps:

Step 1 - Log in to Skydio Cloud

Visit cloud.skydio.com

Step 2 - Select Media

Located in the left sidebar.

Step 3 - Find your media

You have the ability to filter by:

- Date
- Vehicles
- Pilot
- Site

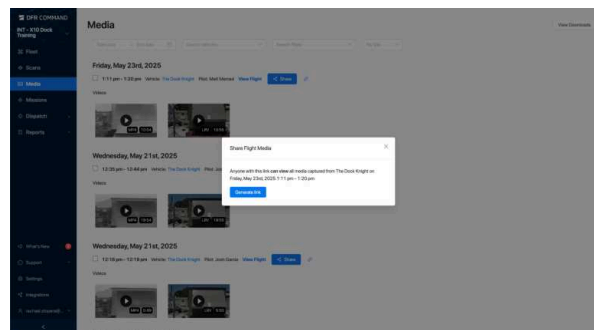
Step 4 - Select Share

Step 5 - Select Generate Link

Once the link is generated, you can change its expiration date.

- By default, all media from the selected flight is viewable for 24 hours.

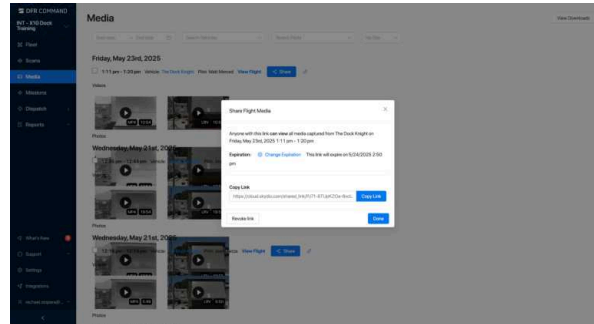
From here, you can also revoke the link if needed.



Step 6 - Select Done

You can also view the specific media for a Mission by selecting **Missions > Runs > Ellipses > View Media**, however, you cannot generate a shareable link from that

screen.



Mission Planning Outside Skydio Cloud

If Remote Pilots and Flight Crew need to plan missions outside of Skydio Cloud that don't leverage the pre-planned missions in Skydio Cloud described above, they should follow their Organization's Policy, Best Practices, and SOPs for flight preparedness and mission planning.

Remote Pilots and Flight Crew must always consult the Skydio Safety Guidelines when planning Missions inside and outside of Skydio Cloud.

Preflight

Relevant Flight Crew Role(s): Remote Pilot in Command (RPIC)

Overview

Prior to conducting remote operations using Skydio Dock for X10, the RPIC must complete a series of preflight checks to ensure the system is airworthy, the environment is safe, and the flight system’s configuration reflects operational requirements.

Some tasks only need to be completed once at the beginning of the operational shift, while others must be performed before each individual flight. Separating these two phases streamlines workflows and helps maintain a high standard of safety and situational awareness.

| | |
|---------------------------------|--|
| Start of Shift Checklist | <p>A set of tasks intended to confirm that the overall system is ready for remote operations.</p> <p>This includes verifying logins, inspecting the physical condition of the drone, and confirming the site is safe to launch from.</p> |
| Preflight Checklist | <p>This is a set of tasks focused on confirming real-time conditions and mission-specific details.</p> <p>This includes factors that change throughout the day, such as reviewing connectivity, weather, and airspace status.</p> |

NOTE: To protect the system from cold-weather exposure, the Dock will automatically close if it remains open for more than two minutes during Preflight in Remote Flight Deck. This prevents the internal chamber, battery, and sensors from dropping below safe operating temperatures. If the Dock closes automatically, it will enter the Fly Again state and display a notification. Remote Pilots may reopen the Dock to continue Preflight checks. Entering Inspection Mode resets the two-minute timer.

The following sections detail the two phases of Preflight Inspection:

Start of Shift Checklist

Pilots should:

1. Report to the physical location of their Operations Center, if required by their Organization
2. Log in to Skydio Cloud
3. Verify Health Status of their Fleet
4. Check for Temporary Flight Restrictions (TFRs) in the flight area
5. Check current and forecast weather conditions from an Aviation weather source such as National Weather Service (NWS)

Preflight Checklist (per flight)

Pilots should:

1. Select their equipment from the Fleet Page
2. Check the External Dock Camera and the Dock weather sensor readings
3. Enter Remote Flight Deck and approve Remote ID
4. Visually inspect the drone using the Dock cameras
5. Check health of VIO, GPS, and flight connectivity
6. Verify Remote Flight Deck settings
7. Check for any Air Traffic in the flight area using the Map View
8. Ensure that all persons directly participating in the flight are informed about flight operations

Start of Shift Checklist

At the start of their shift, Remote Pilots should follow these steps:

Report to Physical Location (if required)

If the Remote Pilot's Organization requires them to operate from a single operations center (e.g., real time crime center), they should ensure they are at the correct physical location set by the organization.

If Remote Pilots are unsure if they are required to operate from a single operations center, they should contact their Organization Admin.

Log in to Skydio Cloud

Remote Pilots should visit cloud.skydio.com, enter the email address associated with their organization, retrieve the verification code sent to that email, and enter it into Skydio Cloud.

Remote Pilots should confirm that they are signed in with the proper credentials for their organization and that the features needed for the shift (Mission Planning, Device Health information, Remote Flight Deck, etc) can be accessed.

The Remote Pilots current **Organization** is listed in the top left corner

- If they have access to multiple organizations, Remote Pilots should select the drop-down arrow to view a list of their organizations
- They can easily switch organizations by selecting one from the list and entering the email verification code

The email address of the logged-in user is shown in the bottom left corner

- The drop-down arrow allows Remote Pilots to view the organization that is associated with this email

Verify Health Status of Fleet (Fleet Page)

Before conducting remote operations, Remote Pilots must verify that the flight systems they intend to use during the shift are fully operational.

The drone selected **must have enough battery power** to operate for the intended mission time. The Battery Indicator dynamically updates during flight based on altitude and distance from the return location. Monitor the indicator to understand how much battery is:

- Available for flight (green)
- Required to return (yellow)
- Required to land (red)

Green indicates the battery capacity for nominal flight before the time limit required to safely return and land.

- Decreases as battery capacity diminishes
- Adapts based on altitude and distance from the return location

Yellow indicates how much battery is required to safely return.

- Adapts based on altitude and distance from the return location

Red indicates how much battery is required to land.

- Adapts based on altitude and distance from the return location

The **lightning bolt** indicates the battery is connected and charging.

If a device is in **Limited Operation** or **Inoperable**, the system may need maintenance.

To verify the health status of the fleet, Remote Pilots should take the following steps:

Step 1 - Navigate to the Fleet page (located in the left sidebar)

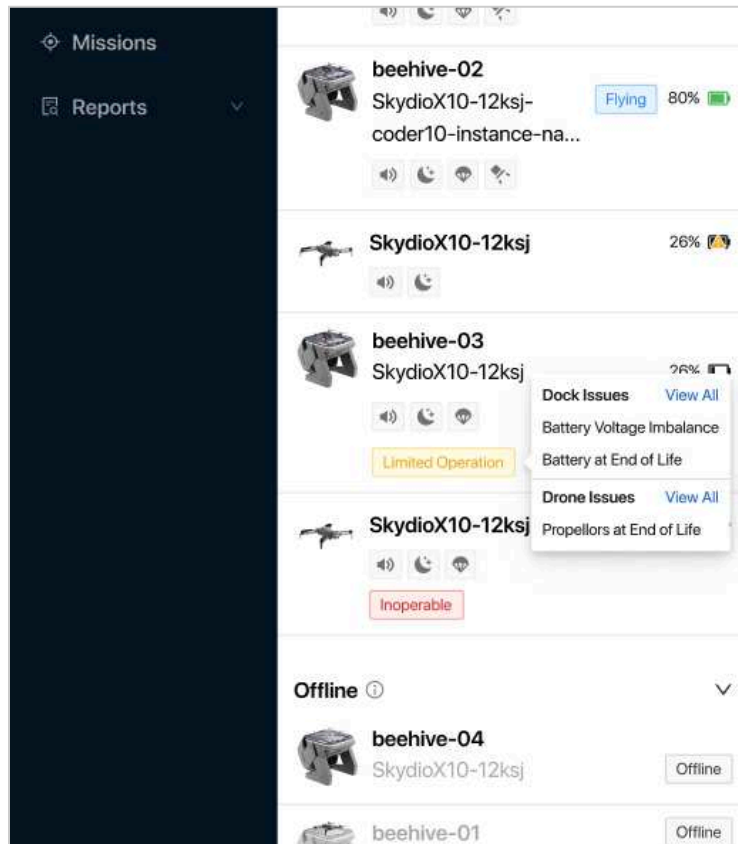
Step 2 - Review Fleet health status

The Fleet Page provides a snapshot view of the flight systems, allowing users to quickly identify Sensor Packages, Attachments, and overall system health.

Status levels include:

- **Online** - No known issues; system is ready for flight
- **Offline** - System is disconnected
- **Limited Operation (yellow)** - Some functionality is restricted (e.g., a battery is nearing end of life); the system can fly, but maintenance may be needed soon
- **Inoperable (red)** - A critical issue is preventing flight; immediate action required

Hovering over a **Limited Operation** or **Inoperable** status displays details about the issue (e.g., Front Camera Failure).



Step 3 - Device: Review detailed system information

Here, more detailed information about the flight system can be viewed. If any indicators were shown that communicated limited or poor health for the flight system, then more information can be found by selecting the gear icon for the Dock or the drone.

Device Settings for the drone can also be configured here (such as enabling Remote Operations) and Remote Pilots can change Device Settings for the Dock as well (such as setting the alert volume that broadcasts from the Dock).

The Dock alert level should be set to ensure that individuals in the immediate launch and landing area can hear the alert. It is the responsibility of the Remote Pilot to notify anyone in the operational area prior to launch or return that a drone is launching or landing.

Check for Temporary Flight Restrictions (TFRs) in the Flight Area

In special circumstances, the FAA may temporarily restrict access to certain designated areas of your airspace.

These airspace restrictions are called [Temporary Flight Restrictions](#) (TFRs) and are communicated to pilots through [Notices to Airmen](#) (NOTAMs).

They restrict aircraft (including drones) from operating without permission in a certain area for a limited time. **Remote Pilots must always check NOTAMs prior to their flight.**

- Remote Pilots can check NOTAMs at: <https://notams.aim.faa.gov/notamSearch/nsapp.html#/>
- Remote Pilots can check for TFRs at: <https://tfr.faa.gov/>

Check Current and Forecast Weather Conditions from an Aviation Weather Source

The Dock has a weather sensor giving Remote Pilots up-to-date weather information near the Dock location. In addition, Remote Pilots must check current and forecasted weather conditions from an Aviation Weather Source such as the Aviation Weather Center. Weather conditions must be within the operating limits of the drone.

Remote Pilots should use a separate browser tab to check weather conditions in all potential flight areas and maintain awareness of upcoming weather throughout their shift.

Complete Internal Processes

Remote Pilots should complete any additional preflight workflows or documentation required by their organization's standard operating procedures (SOPs).

These requirements may vary depending on agency policies, waiver compliance, or mission type.

Preflight Checklist (per flight)

Remote Pilots should take the following preflight steps:

Select Flight System (Fleet Page)

Before entering Remote Flight Deck, Remote Pilots must select the flight system and verify that it is fully operational.

To select their flight system, Remote Pilots can:

Step 1 - Navigate to the Fleet page (located in the left sidebar)

Step 2 - Select the Dock flight system they wish to use

Select the system that best suits their operational needs. Consider factors such as:

- Sensor Package
- Attachments (**Parachute required if flying over people**)
- Dock location and mission location
- Battery levels

Remote Pilots should ensure the system status is **Online** and fully operational.

If a device is in **Limited Operation** or **Inoperable**, the system may need maintenance. Users should refer to the Dock for X10 Maintenance Manual or contact their Fleet Manager/Organization Admin if their flight system is Inoperable/Limited Operation.

NOTE: Users can also use the Map View to select a Dock flight system.

Step 3 - Open the Flight System Page

The Flight System Page provides Remote Pilots with key system information and can be used to check the environment and weather for the flight.

Check Environmental Conditions Using the External Dock Cameras (Flight System Page)

Before each flight Remote Pilots must use the **External Dock Cameras** to remotely inspect the launch area, sky conditions, visibility, and the surrounding environment.

These live camera feeds give visibility into conditions at the location of the Dock and help identify potential safety issues that could interfere with launch or mission execution.

To view the External Dock Cameras, Remote Pilots should select the Flight System they wish to view in Skydio Cloud > Fleet. From the **Flight System Page** of the selected Dock, Remote Pilots will see the External Dock Cameras. The drop-down menu expands or collapses the camera feed.

The cameras can be used to:

- Verify the Dock launch/land area is free from obstruction
- Check for any people in the launch/land area so they can be notified and cleared of the area prior to launch
- Verify Safe Landing points are free from obstruction and people (if viewable from your External Dock Camera)
- Check general visibility and for low cloud ceilings
 - Visibility needs to be no less than 3 statute miles, as observed from the location of the control station and the drone must maintain a distance of no less than 400 feet below the cloud and 2,000 feet horizontally from the cloud.

Check the Weather Sensor Readings from the Dock (Flight System Page)

CAUTION

Risk of equipment damage or flight instability.

Skydio X10 is IP55 rated, providing protection from limited dust ingress and light to moderate precipitation conditions. It is recommended to not fly in heavy dust conditions or heavy precipitation.

Risk of equipment damage from dust or moisture.

Skydio X10 Dock is IPX6 for water ingress when it is closed and IPX5 for water ingress when it is open. We do not recommend opening the Dock in heavy dust conditions or heavy precipitation.

In addition to current and forecasted weather from an Aviation Weather Source, Remote Pilots should monitor the weather sensor readings from the Dock to make sure the weather is within the operating limits of the drone.

Remote Pilots should:

Check wind direction and wind speed

Skydio X10 should not be flown when winds or gusts are above 28 mph.

Check temperature

Skydio X10 should not be flown when temperatures are above 113°F (45°C) or -4° F (-20°C).

Check for precipitation

Skydio is IP55 rated and able to fly in light to moderate precipitation, however Remote Pilots should always exercise caution and follow the preflight guidelines when flying in precipitation (in the below sections).

Check for daytime or nighttime conditions at the flight location

When flying at night, Remote Pilots should ensure any appropriate

attachments are connected such as NightSense or Spotlight and follow any additional preflight guidelines listed below for flying at night.

Complete Internal Processes

Before launching, Remote Pilots should complete any additional preflight workflows or documentation required by their organization's standard operating procedures (SOPs).

These requirements may vary depending on agency policies, waiver compliance, or mission type.

Approve Remote ID Using the Skydio Enterprise App (Remote Flight Deck)

Remote Pilots must **login to the Skydio Enterprise App** using the same email address that they are using in Skydio Cloud.

When Pilots enter Remote Flight Deck, they will automatically be prompted to approve Remote ID. **Approve Remote ID**. This step is not required if the Organization has Single Operations Center enabled.

Check the Condition of the Drone Using the Dock Inspection Camera

To check the condition of the drone using the Dock inspection camera, Remote Pilots should:

- Enter inspection mode and select **Fly Now** to **enter Remote Flight Deck**.
- **Select the Dock Camera from the picture-in-picture view** which is located in the bottom right corner of Remote Flight Deck (we recommend "Video" view, not "Split" or "Map", for drone inspection)
- Press Enter Inspection Mode on the bottom left. Wait for the dock to get into position.

- **Adjust the camera position** by selecting the numbered positioned to get different views of the drone.
- **Spin the propellers to inspect the blades in view**, and repeat until you are confident about the health / quality of the propellers.
- If inspecting in low lighting conditions, **enable the light**.
- **The image can be zoomed** using the Inspection Controls or dragged by clicking and dragging on the image.

When inspecting, Remote Pilots must:

- Ensure all propellers are in good working condition. Propellers should be free of cracks or damage. Do NOT fly with damaged propellers.
- Check the condition of visible motor hubs.
- Inspect the condition of the drone body
- Check the condition of any navigation cameras that are visible
- Ensure the drone arms are properly aligned and fully extended
- Make sure the battery is fully seated
- Ensure any attachments are fully seated
- Make sure any unused attachment bays are closed with the rubber seal
- If flying over people, verify the Parachute is attached and verify that the red battery latch indicator is not visible on the attachment. If red is visible, the battery retention latch is not engaged
- Exit inspection mode again to fly X10



Check Health of Connections and Navigation Health

Browser Connection

Hovering over the Browser Connection icon displays the health of the browser connection. Here are the different states for the browser connection:

- Green checkmark: Browser connection is healthy
- Yellow exclamation triangle: Browser connection is degraded
- Red X: Disconnected

System Connection

The icon displayed in the telemetry bar will show the connection between the Dock and the drone. Selecting this icon will show additional connection details.





Positioning System: Navigation Health Indicator

The Navigation Health Indicator provides insight into the navigation source of the drone and its reliability. Visual Inertial Odometry (VIO) and GPS Health will display in the Telemetry bar.

- The source with a **light gray background** is the primary navigation source.
- **White status bars** show whether or not VIO/GPS is stable or degraded. One white bar indicates a degraded state that may be close to failure, meaning

Remote Pilots must fly with caution and ensure the other navigation source is in a healthy state.

- **Zero bars** means the navigation source has failed and is relying completely on the backup source.
- **Yellow compass** indicates GPS is awaiting heading. If GPS heading hasn't converged yet, Remote Pilots will receive a notification prompting them to move the drone laterally to establish heading.
- **Yellow highlight** means the active navigation source is weak and the backup source is unavailable. If the highlighted source fails, the drone will enter Attitude Mode and automatically initiate an emergency landing.

| | |
|--|---|
| Nominal state (GPS is primary) |  |
| White status bars |  |
| Yellow highlight and yellow compass |  |
| The drone is performing an Emergency Landing |  |

NOTE: GPS will display a yellow compass until the drone is launched and GPS heading is acquired.

Verify Remote Flight Deck Settings

Prior to flight, Remote Pilots should verify that the following settings are appropriately configured for the flight environment and that the settings are in line with the Organization's SOPs:

Flight Controls > Height Ceiling

Sets the maximum allowed altitude for Docked flights. Ensure it's high enough for mission objectives but still within FAA limits.

Return > Return Speed

Sets how fast the drone returns to the Dock in the event of a mission end or interruption.

Return > Return Path Strategy

Sets the behavior of the drone during return.

- **Up and Over** – Drone ascends to a set height before returning directly to the Dock—useful for obstacle avoidance.
- **Backtrack** – Drone retraces its outbound path to return—better for enclosed or GPS-denied environments.

Return > Up and Over Height Settings

Sets the height behavior when Up and Over is selected as the Return Path strategy.

- **Absolute** – Waypoints are tied to GPS coordinates (used for repeatable missions)
- **Relative** – Waypoints are tied to a local frame relative to the Dock's position

Return > Lost Connection

This defines how the drone responds if it loses connection. Set the amount of time you want the drone to hover (and regain connection) before it returns to the Dock.

Lighting

Allows Remote Pilots to select the light pattern on the drone that suits their mission (Navigation, Police, Emergency, etc.) If flying at twilight or at night, strobe lights are required to be turned on to help other aircraft maintain visibility of the drone.

ADS-B

Sets the desired ADS-B Alert range. Remote Pilots will receive a notification in Remote Flight Deck when an aircraft is inside your alert radius.

Autonomous Behaviors

Sets the altitude for Fly Here or Respond Here Missions. The drone will ascend (or descend) to the specified altitude before performing autonomous missions like “Fly Here”.

Settings for Flying at Night/Flying in Precipitation

Also covered in In Flight Remote Operations.

Flying at Night with NightSense

When flying at Night **with NightSense**, Remote Pilots should:

- **Enable Low Light Mode** - Enable Low Light Mode in the Sensing Menu.
- By default, NightSense will automatically turn on when entering Low Light mode. NightSense can also be controlled via the left sidebar attachment panel.
- **Enter into the Attachment > NightSense settings** to set preferences for flight.
- **Turn on strobe lights** to help other aircraft maintain visibility with Skydio X10.
- **Tip: The thermal camera** and Map View can be used to improve situational awareness and help Remote Pilots perform their mission in low light conditions or at night when the color camera may not be as effective.
- **Tip: AR Street Overlay and Markers AR** can be used to help Remote Pilots gain situational awareness when flying at night or in low visibility conditions.

NOTE: More information can be found in *Safety Guidelines: Attachments - NightSense*.

Flying at Night without NightSense

When flying at Night **without NightSense**, Remote Pilots should:

- **Enable Low Light Mode** - Enable Low Light Mode in the Sensing Menu.
- **Stay clear of obstacles** - Obstacle avoidance is disabled when flying in low light mode without NightSense. Extra caution should be taken when piloting the drone. Remote Pilots must always be aware of obstacles in their environment.
- **Maintain a strong GPS signal** during flight by monitoring telemetry data and system status. If the drone is near or underneath large structures, or flying where the drone doesn't have a clear view of the sky, then the drone may experience poor GPS signal.
- **Turn on strobe lights** to help other aircraft maintain visibility with your Skydio X10.
- **Tip: The thermal camera** and Map View can be used to improve situational awareness and help Remote Pilots perform their mission in low light conditions or at night when the color camera may not be as effective.
- **Tip: AR Street Overlay and Markers AR** can be used to help Remote Pilots gain situational awareness when flying at night or in low visibility conditions.

Flying at Night with NightSense in Precipitation (Disable NightSense)

When flying at Night **with NightSense in Precipitation**, Remote Pilots should:

- **Enable Low Light Mode** - Enable Low Light Mode in the Sensing Menu.
- **Disable NightSense** - Do not enable NightSense when flying in precipitation. NightSense may be attached, but not enabled when flying in precipitation.
- **Stay clear of obstacles** - Obstacle avoidance is disabled when flying in low light mode without NightSense. Extra caution should be taken when piloting the drone. Remote Pilots must always be aware of obstacles in their environment.
- **Maintain a strong GPS signal** during flight by monitoring telemetry data and system status. If the drone is near or underneath large structures, or flying where the drone doesn't have a clear view of the sky, then the drone may experience poor GPS signal.

- **Turn on strobe lights** to help other aircraft maintain visibility with Skydio X10.
- **Tip: AR Street Overlay and Markers AR** can be used to help Remote Pilots gain situational awareness when flying at night or in low visibility conditions.

Flying at Night without NightSense in Precipitation

When flying at Night **without NightSense in Precipitation**, Remote Pilots should:

- **Enable Low Light Mode** - Enable Low Light Mode in the Sensing Menu.
- **Stay clear of obstacles** - Obstacle avoidance is disabled when flying in low light mode without NightSense. Extra caution should be taken when piloting the drone. Remote Pilots must always be aware of obstacles in their environment.
- **Maintain a strong GPS signal** during flight by monitoring telemetry data and system status. If the drone is near or underneath large structures, or flying where the drone doesn't have a clear view of the sky, then the drone may experience poor GPS signal.
- **Turn on strobe lights** to help other aircraft maintain visibility with Skydio X10.
- **Tip: AR Street Overlay and Markers AR** can be used to help Remote Pilots gain situational awareness when flying at night or in low visibility conditions.

WARNING

Risk of collision or serious injury.

When Low Light Mode is enabled, obstacle avoidance is disabled unless NightSense is active. When in Low Light Mode without NightSense (GPS required), top speed is 45 mph (20 m/s) (when flying with no attachments in ideal conditions such as no wind, no precipitation, higher air density, etc.)

When in Low Light Mode with NightSense enabled, top speed is 18 mph (8 m/s) in ideal conditions. The Remote Pilot should always be aware of the drone's top speed, surroundings, controller sensitivity, and adjust the flight settings accordingly to suit the mission and environment. Flying without obstacle avoidance increases the risk of collision.

Flying in Precipitation (Daytime)

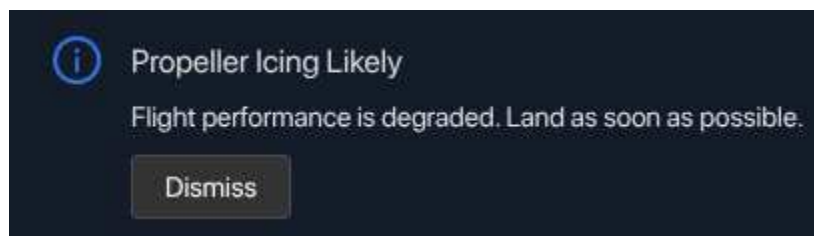
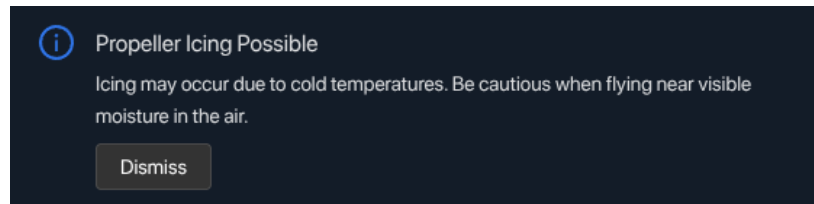
When flying **in Precipitation** during the day, Remote Pilots should:

- **Disable obstacle avoidance** - Disable obstacle avoidance when flying in precipitation.
- **Stay clear of obstacles** - Obstacle avoidance is disabled when flying in low light mode without NightSense. Extra caution should be taken when piloting the drone. Remote Pilots must always be aware of obstacles in their environment.
- **Monitor GPS and VIO health** - If obstacle avoidance is disabled the drone will use GPS navigation as the primary navigation source. If GPS degrades, then the drone will fall back to VIO (if healthy). Remote Pilots should monitor both sources of navigation when flying without obstacle avoidance (in precipitation).
- **Turn on strobe lights** to help other aircraft maintain visibility with Skydio X10.
- **TIP: AR Street Overlay and Markers AR** can be used to help Remote Pilots gain situational awareness when flying at night or in low visibility conditions.

Icing Detection Alerts

The Flight System monitors inflight performance for signs of reduced lift or increased drag that may indicate ice forming on the drone. If icing is detected, Remote Pilots will receive an alert, enabling early corrective action before flight performance degrades.

- Icing alerts may appear in temperatures up to 46°F (8°C)
- When this alert appears, Remote Pilots should safely and promptly land the aircraft and discontinue flight operations until conditions improve



Check for Local Air Traffic Using the Map View

Prior to launch, Remote Pilots must check the Map View to see if there are other aircraft in the area that are transmitting ADS-B:

- Aircraft inside of the alert range will appear red
- Aircraft nearby, but not inside of the alert range, will appear as a white chevron

Remote Pilots must yield to all crewed aircraft and perform a safe state maneuver (safely descend below 200 ft (~60 m) and/or within 50 ft (15 m) of a building) if they encounter air traffic that conflicts with the flight.

Hovering or clicking and holding on an aircraft in the Map View displays more information about that aircraft (such as altitude and heading).

Remote Pilots may not see any immediate air traffic in their area.

- Selecting the **FUS** icon in the telemetry bar will display the ADS-B connection status so Remote Pilots can verify that ADS-B is connected and functioning.

WARNING

Risk of mid-air collision causing serious injury or death.

In rare cases, non-cooperative crewed aircraft may not be transmitting ADS-B. These aircraft will not show up on the map. To avoid potential airspace conflicts, Remote Pilots should maintain situational awareness at all times.

Ensure That All Persons Directly Participating in the Flight are Informed About Flight Operations

The Remote Pilot must “ensure that all persons directly participating in the small unmanned aircraft operation are informed about the operating conditions, emergency procedures, contingency procedures, roles and responsibilities, and potential hazards.” (Part 107.49 part B)

RPICs must inform Flight Crew about **operating conditions**, for example;

- Weather Conditions (wind, precipitation, temperature)
- Air traffic
- Location of persons or property on the surface

RPICs must inform Flight Crew about **emergency procedures**, for example;

- If the drone is performing an emergency landing
- The expected behavior of the drone during an emergency landing
- Deploying the Parachute (if applicable)

RPICs must inform Flight Crew about **contingency procedures**, for example;

- Land in Place Procedures
- Safe Landing Point Procedures
- Lost Connection Behavior
- Low Battery Behavior

RPICs must inform Flight Crew their **roles and responsibilities**, for example;

- The RPIC is solely responsible for safe operation of the flight system during all phases of operation.
- Visual Observers **(if applicable)** may assist the RPIC with maintaining situational awareness in their operating area and communicate back to the Remote Pilot any potential hazards in the operating area.
- Any other personnel involved in the flight operations **(if applicable)** must be informed of their roles and responsibilities. Depending on the organization’s policy, Skydio Cloud Users and Administrators may be assisting in flight operations.

RPICs must inform Flight Crew about **any potential hazards** in the flight environment, for example;

- Wires, branches, or other objects less than ½” in diameter
- Reflective surfaces greater than 53 inches wide
- Moving objects or equipment near the Dock, drone, or along the planned flight path

- Manned or unmanned aircraft in the vicinity of the flight area

In addition, the Remote Pilot is responsible for notifying anyone inside the Dock operational area that a flight is launching and to keep the area clear. Remote Pilots should use their organization's communication protocol to notify personnel in the Dock launch/land area prior to flying.

Remote Pilots must ensure the area around the Dock is clear before launching and should launch when they have determined it is safe.

Inflight Operations

Relevant Flight Crew Role(s): *Remote Pilot in Command (RPIC)*

Overview

The **Flight Operations** phase covers the active remote control of a Skydio X10 during a flight. As the drone is airborne, the RPIC is responsible for maintaining safe, stable, and compliant operations throughout the flight.

RPICs must be prepared to respond to changes in weather, connectivity, and nearby air traffic while maintaining situational awareness through Remote Flight Deck. Clear expectations around telemetry or contingency behaviors helps ensure each flight is completed safely, even if conditions change mid-air. Remote Pilots should always monitor system status throughout the flight.

This section includes the following key objectives:

1. Launching
2. Manual Flight Controls
3. Fly to Point(s)
4. Custom Markers
5. Keep-in and Keep-out Geofences
6. Using Attachments
7. Airspace Deconfliction
8. Flying at Night/Flying in Precipitation
9. Commandeering a Flight
10. Returning and Landing
11. Low Battery Behavior
12. Lost VIO or GPS
13. Contingency Protocols and Behaviors

WARNING

Risk of serious injury or loss of flight control.

Remote Pilots must not use generative AI tools (e.g., ChatGPT) to launch or operate Skydio drones. Skydio drones must be launched and operated under direct human supervision and control at all times. Using third-party AI tools to initiate launch sequences or conduct remote flights—whether via simulator or in live operations—is strictly prohibited. These workflows may violate FAA regulations (including Part 107.12 and 107.19), pose a significant safety risk, as well as void warranty coverage or other terms and conditions in the event of damage or loss. A qualified Remote Pilot should always be actively managing flight operations.

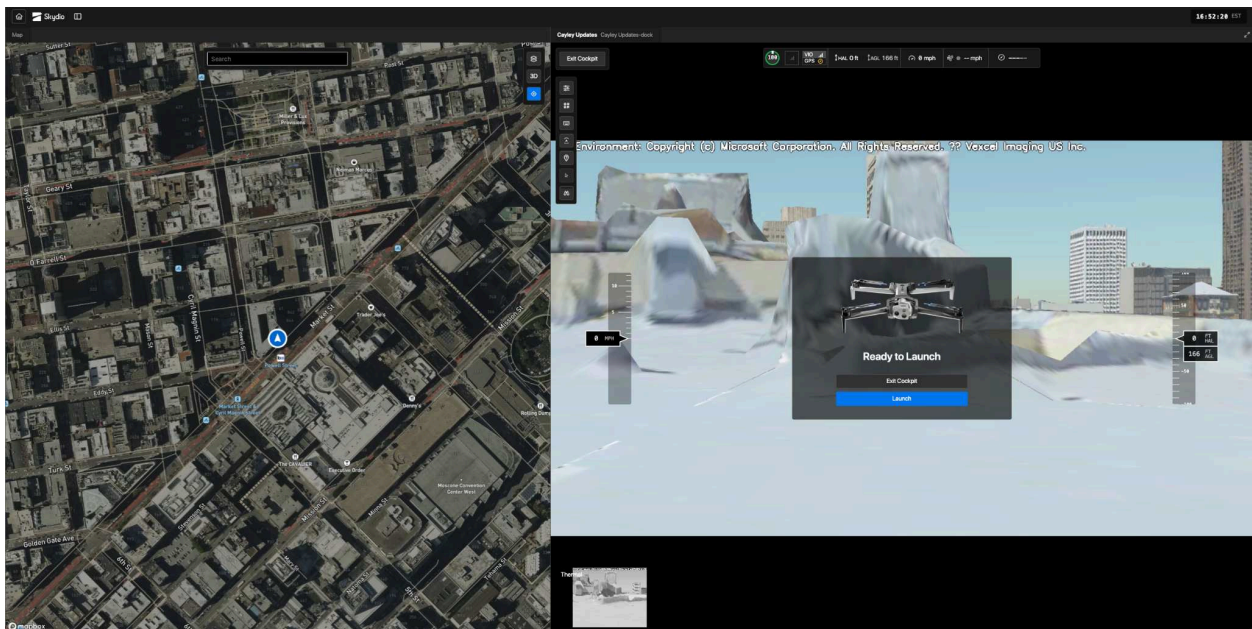
Launching

Before launching, the Remote Pilot is responsible for notifying everyone in the operational area, and those involved in the operation, that a flight is about to begin.

When **Launch** is selected:

1. The drone will automatically launch from the Dock and spin 360° to calibrate Inertial Measurement Unit (IMU)
2. Use the AprilTags to improve launch accuracy
3. Level the gimbal pitch
4. Hover in place

At this point the Remote Pilot is in control of the drone and can begin flight.



Manual Flight Controls

Flying Manually (Keyboard)

WARNING

Risk of collision or serious injury due to unintended flight commands.
Before flight, disable Sticky Keys on the computer keyboard. Sticky Keys can interfere with the pilot's ability to operate the drone safely and may cause unintentional flight commands, potentially resulting in a collision or serious injury. Refer to the computer's operating system manual for instructions on disabling Sticky Keys. Before each flight, ensure Sticky Keys are turned off if the setting cannot be disabled permanently.

Remote Pilots can use the W-A-S-D keys on the keyboard to control the flight of the drone.

These shortcuts can be viewed any time by selecting the **keyboard icon** in the Action Bar (center of the screen).

| | |
|---|--|
| Pitch Forward | W |
| Strafe Left | A |
| Strafe Right | D |
| Pitch Backward | S |
| Ascend | Press and hold the Spacebar |
| Descend | Press and hold Shift |
| Gimbal Pitch | Up and down arrows |
| Yaw | Left and right arrows |
| Gimbal Pitch and Yaw | Press (C) to enter Pointer Lock and have your mouse control the gimbal pitch and yaw. Press (C) again to exit. |
| Toggle Flight Control keyboard menu open and closed | Backtick (`) |
| Toggle Obstacle Avoidance | R |
| Toggle Pointer Lock | C |

| | |
|--|----------|
| Increase Speed |] |
| Decrease Speed | [|
| Zoom In | = |
| Zoom Out | - |
| Increase Exposure | . |
| Decrease Exposure | , |
| Reset Exposure | / |
| Take Photo | P |
| Toggle Flight Controls Menu | ` |
| Auto Focus Center | F |
| Clear Focus Center | V |
| Toggle Strobe Lights | I |
| Toggle Thermal Video | T |
| Boost | Q |
| Crawl | E |
| Set Camera Pitch Forward/Downward | Z |
| Toggle RGB Lights | L |
| Toggle Markers AR | M |
| Toggle Currently Fly to Point | X |
| Toggle Streets AR | O |
| Zoom 1x | 1 |
| Zoom 4.3x (VT300-Z) Zoom 2x (VT300-L) | 2 |
| Zoom 16x (VT300-Z) Zoom 16x (VT300-L) | 3 |
| Zoom 32x (VT300-Z) Zoom 32x (VT300-L) | 4 |

| | |
|---|----------|
| Zoom 64x(VT300-Z) Zoom 64x (VT300-L) | 5 |
| Zoom 128x (VT300-Z Only) | 6 |

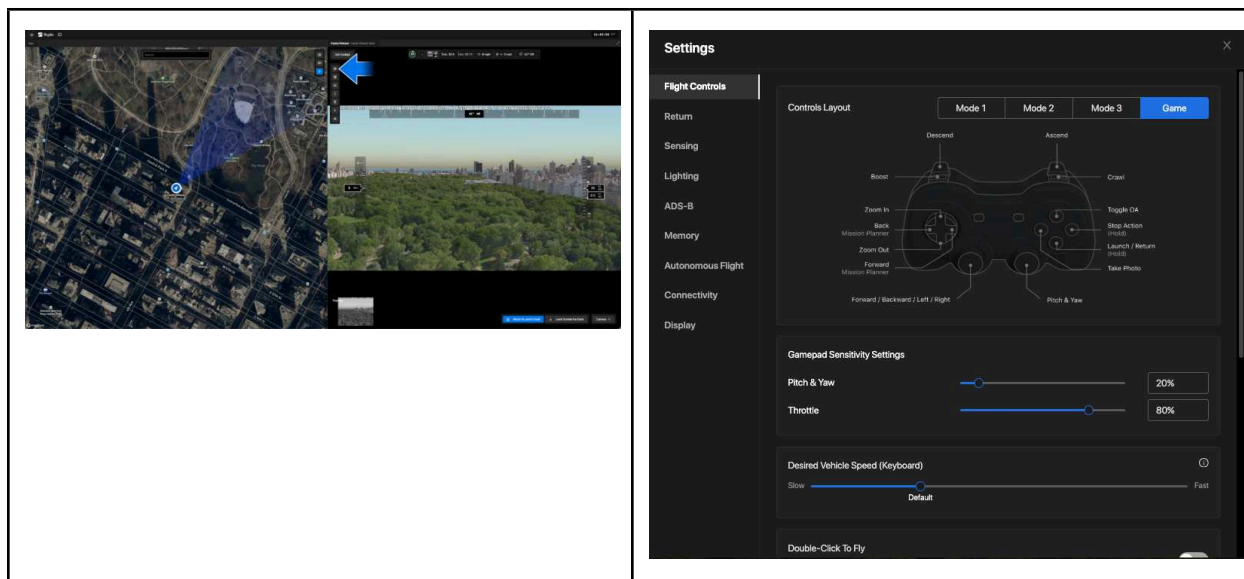
Flying Manually (Gamepad Controller)

Remote Flight Deck offers the flexibility to pilot the drone using a standard gamepad controller, providing an intuitive alternative to traditional keyboard control methods.

Setup instructions can be viewed in the **Initialization** section.

To change flight control settings, such as Control Mode, Remote Pilots can select **Settings > Flight Controls** to edit.

NOTE: Settings only persist through the current browser tab session.



WARNING

Risk of collision or serious injury from uncommanded drone movement.

If the gamepad controller has loose or uncentered joysticks, fails to recenter properly, or exhibits stick drift, it may cause unintended drone movement during flight. While the drone is grounded, follow the controller manufacturer's instructions to calibrate the joysticks if supported. To verify proper operation, hover the drone over the Dock or another safe area without applying input. If the drone

drifts consistently without input, land immediately and recalibrate or replace the controller before resuming flight.

Double-click to Fly

To use this feature, Double-click to Fly must be toggled on within *Settings > Flight Controls > Double-click to Fly*.

Double-clicking anywhere on the video feed will command the drone to fly to that point in space.

- An AR destination marker target will appear on-screen
- Scrolling up will move the destination further away
- Scrolling down will move the destination closer

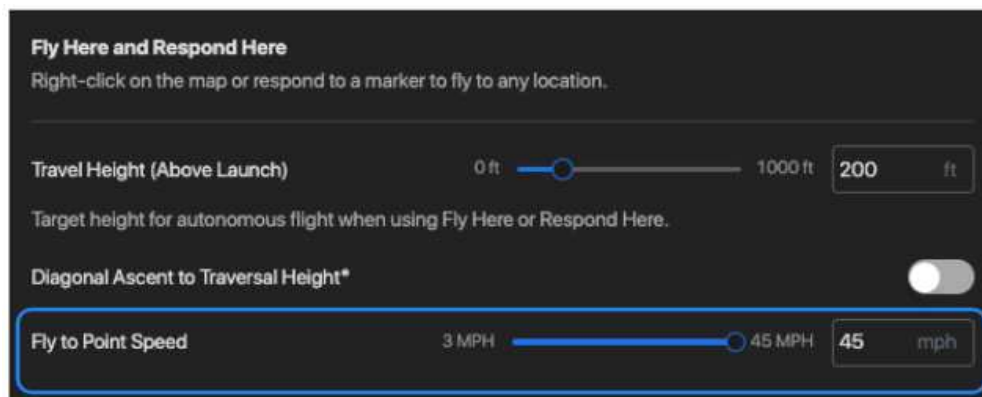
Fly Here Now

Creating a Fly Here Now

When Remote Pilots need to fly to a specific location, they should use the Map View.

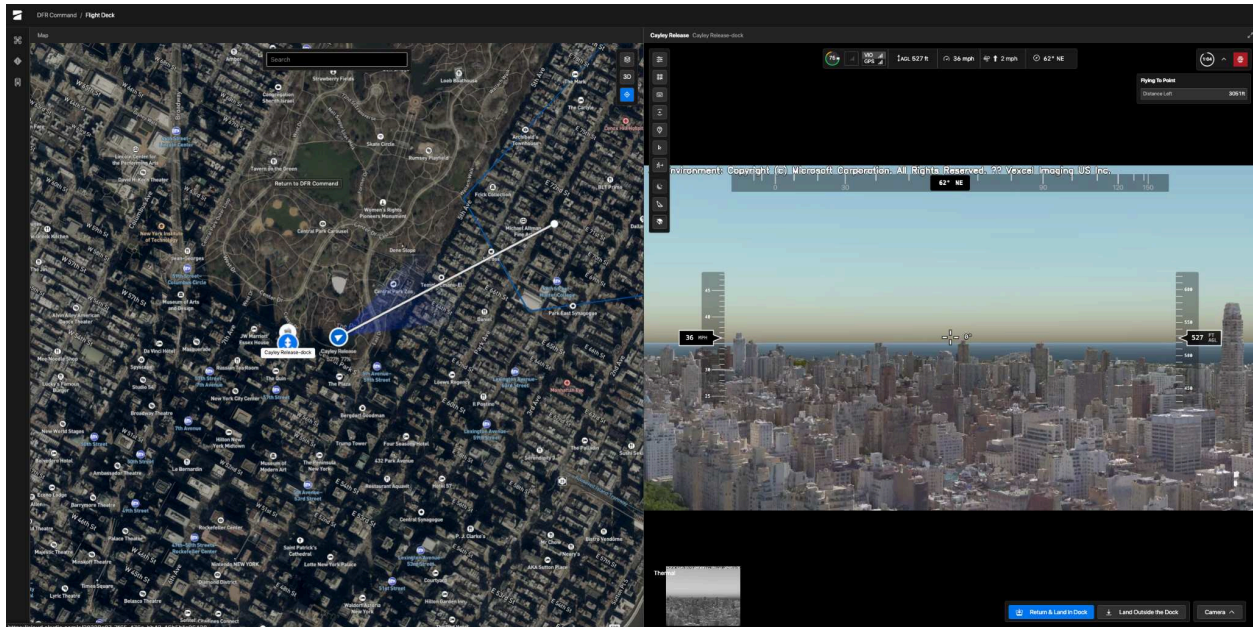
To zoom in on a specific location, the RPIC can drag and zoom in or out of the map until the desired area appears in the Map View. Alternatively, the **Search Location** function can be used to display a specific location in the Map View.

- **Right-click on the Map View and select Fly Here** to send the drone to that specific location
- The drone will automatically ascend or descend to the mission height set in *Settings > Autonomous Flight > Fly Here > Travel Height*
- Once it reaches the set altitude, the drone will begin flying at the default 36 mph (16 m/s) until it arrives at the selected destination
 - Remote Pilots can increase this speed while flying via *Settings > Autonomous Flight > Fly Here and Respond Here > Fly to Point Speed*
 - Organization Admins can set a Default Flight Settings speed via *Settings > Flight Settings > Autonomous Flight*
- The maximum speed for a Fly to Point is 45 mph (20 m/s)



NOTE: If a Fly Here Now fails, the point may be too far away for the drone to fly and return. To resolve, try setting the Fly to Point closer.

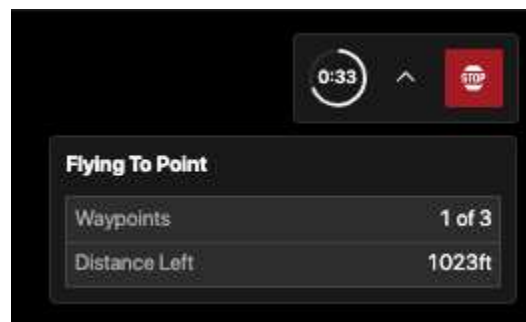
NOTE: If the Remote Pilot changes the Travel Height while the drone is actively flying to one or more Fly Here points, the updated Travel Height will not take effect until all current points are completed and a new Fly Here is created.



Fly Here Now Summary

Once a Fly to Point Mission has begun, a summary dialogue box will appear showing:

- The current point the drone is traveling to (for example: Waypoint 1 of 3)
- Time Left
- Distance Left
- Overall progress



Stopping, Resuming, or Aborting a Fly Here Flight

An autonomous Fly Here flight can be stopped by selecting the **Stop** button within the Waypoint Flight Summary dialogue box or by selecting X on your keyboard.

When stopped, the option to **Resume** or **Abort** the Waypoint Flight will appear at the bottom of the screen.

- Selecting **Resume (X)** will autonomously continue the flight to all the remaining Waypoints
- Selecting **Abort** will remove all Waypoints. This will cancel the remainder of the flight and the drone will hover in place, giving the Remote Pilot control of the drone again.

The maximum speed during a Fly to Point is 45 mph (20 m/s) with obstacle avoidance.

Arriving at a Fly Here Point

When the drone arrives at a Fly to Point, the Remote Pilot will be notified that the mission is complete in Remote Flight Deck and they will regain control of the drone.

The Fly to Point is set at the altitude Travel Height under *Settings > Autonomous Behaviors*.

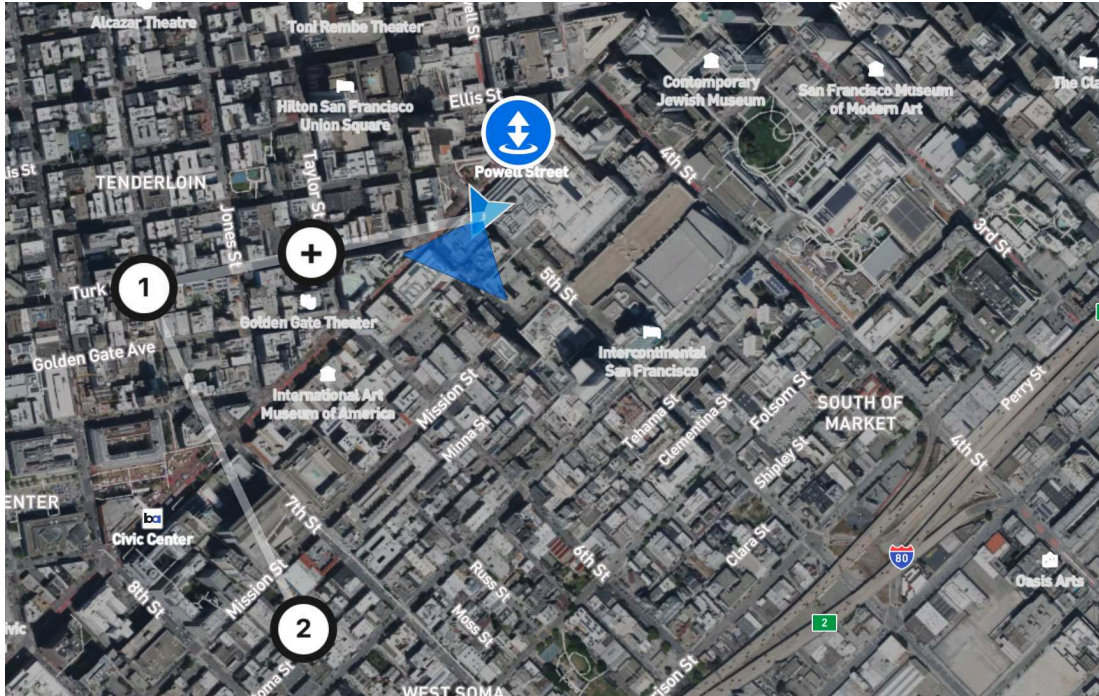
Moving a Fly Here Point

Remote Pilots can **click, hold, and drag** a Fly to Point to move the Point on the map. Clicking and holding directly on a Point will display additional details. In the 3D Map View, Remote Pilots can adjust the altitude of the Fly to Point by clicking and dragging the point up or down while holding the ALT key on the keyboard or the Option on a Mac.

Adding Multiple Fly Here Points

To add multiple Fly to Points, Remote Pilots should hover over the existing flight path, shown as a white line on the Map View, and then click the plus sign icon. A new waypoint will be created along the flight path, which can then be clicked and dragged to the desired location.

When adding multiple Fly to Points, the behavior of the drone at the final Fly to Point will be different than the intermediate Waypoints along the way. At the final Fly to Point, the drone will stop flying and complete the Fly to Point mission. Control will be handed back to the Remote Pilot. When flying to intermediate Waypoints along the way, the drone will not stop and may not pass directly overhead these points. The drone will continue flying as it passes through or passes near the intermediate Waypoints.



Deleting a Fly Here Point

Remote Pilots can **right click on a point to delete it**.

- Selecting **Stop** and aborting the current Mission or deleting the final Fly Here point will remove all Fly Here points at once
- If Remote Pilots delete an intermediate Fly Here point, only that point will be deleted
- If the drone was traveling to that point when it was deleted, it will automatically adjust and continue on to the next Fly Here point in the sequence.

NOTE: If Remote Pilots select “Fly Here” again with multiple Fly Here points already established, it will replace all existing Fly to Points and create a new single Fly to Point at the location you have indicated.

Flight Path

The Flight Path is shown as a white line between the drone and the Fly to Point(s). Remote Pilots can click anywhere along a Flight Path to add another Fly to Point. The Flight Path will appear gray if the drone is ascending or descending to its

Mission Height. Note: if the Flight Path intersects with a Keep-out Geofence Zone, then the Flight Path will be automatically adjusted to avoid the Keep-out area.

Free Look Mode

When the drone is traveling to a Fly to Point, it will fly autonomously. The Remote Pilot cannot manually control the flight however they can control the gimbal pitch and yaw.

If the gimbal pitch or yaw is adjusted, the drone will automatically enter into Free Look Mode, allowing the Remote Pilot to freely move the gimbal pitch and yaw as the drone autonomously continues along the flight path.

Selecting **Exit Free Look** will return the camera position towards the Fly to Point destination.

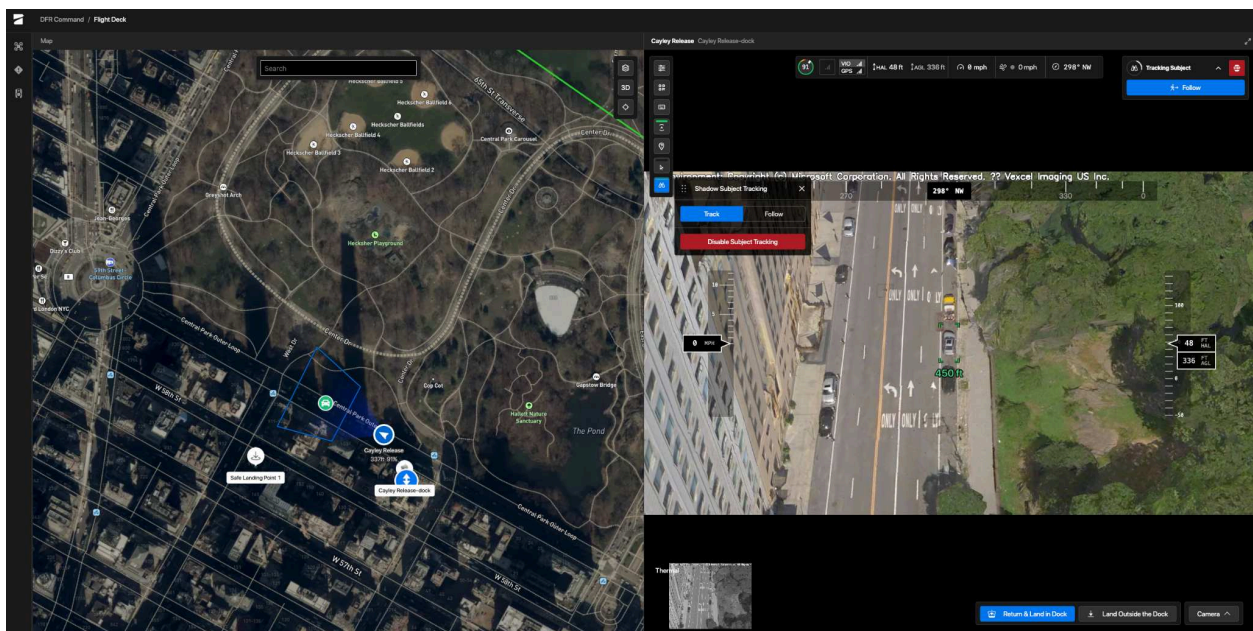
Shadow Subject Track and Follow (Beta)

Shadow Subject Track and Follow is an advanced autonomy capability that enables the drone to automatically track a selected person or vehicle and, when enabled, follow the subject's movement without continuous manual flight control.

- Supports incident response, perimeter monitoring, and other operations where maintaining persistent visual coverage is critical

Shadow Track and Follow consists of two related behaviors:

- **Shadow Track** - The drone autonomously identifies and maintains visual lock on a selected subject while managing camera framing and orientation
- **Shadow Follow** - Appears as an option to enable while tracking. When enabled, the drone adjusts its position, speed, and heading to maintain relative distance and orientation to the moving subject



Operational Guidelines

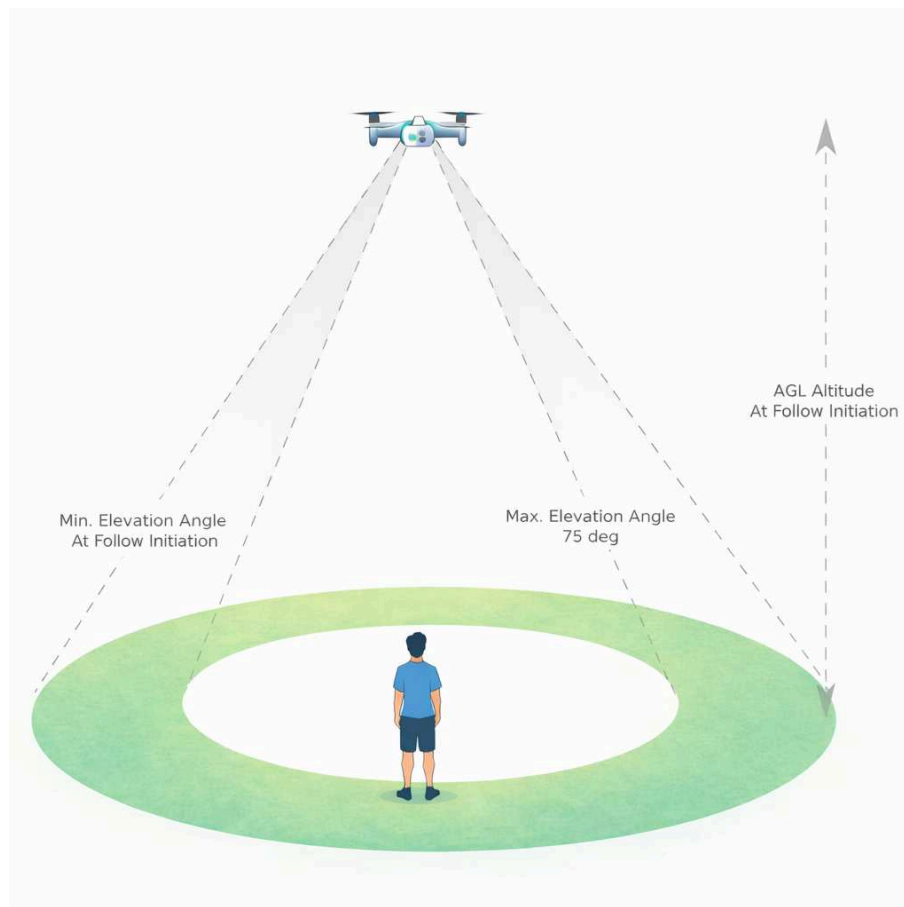
- **The operator remains responsible for airspace awareness and safe operation at all times.**
- **Obstacle avoidance must be enabled** to use Shadow Follow. Follow behavior depends on obstacle avoidance for safe maneuvering. If a potential obstacle is detected, the drone may temporarily stop following and hold position while maintaining visual tracking.
 - If obstacle avoidance is disabled while flying with Follow, it will revert back to Shadow Track
- **Shadow Follow requires a minimum altitude of 60 ft AGL.** Below this altitude the drone continues to track, but does not reposition.
- Mode selection (Track or Follow) settings persist
- Follow does not use Pathfinder data
- The system attempts predictive reacquisition for approximately 5 seconds when subjects move behind buildings, vegetation, or vehicles. Extended occlusions may result in tracking loss.
- Any manual adjustment (forward, back, lateral, or altitude) orbits the subject and resets the position that Follow will maintain.

Shadow Follow Altitude and Distance Behavior

When Follow is enabled, the drone maintains a **relative position** to the subject based on where Follow was initiated.

- The drone attempts to maintain the same AGL height from the moment Follow begins. If the Remote Pilot wants to follow from a higher or lower altitude, they can manually reposition the drone using Shift or the Spacebar, and Follow will continue from the new height.
- There is no fixed standoff distance. Follow maintains the viewing distance the drone had at initiation.
 - The drone will not move farther from the subject than the viewing angle and distance established when Follow begins.
 - The drone will not move closer than an elevation angle of $\sim 75^\circ$. If the subject moves toward the drone, the drone will hold position until the distance becomes unsafe or too close.

NOTE: Standoff Distance settings only apply to Custom Markers, not Shadow Follow.



Best Practices

To maintain reliable tracking performance and reduce the likelihood of interruptions or tracking loss, Remote Pilots should review the best practices below during Shadow Track and Follow operations:

Anticipate Obstructions

- Assess the subject's likely path and identify buildings, vehicles, or other structures that may interfere with line-of-sight
- Adjust the drone's position early to maintain an unobstructed view, which may require flying closer to the subject or repositioning laterally to avoid occlusion

Utilize Zoom Capabilities

- If the subject is clearly visible in the camera feed without the operator straining to identify it, the tracking model will generally be able to detect and maintain the lock
- Excessive distance or reliance on extremely small visual targets may reduce tracking performance

Avoid Overhead Viewing Angles

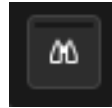
- Subjects, particularly people, are more difficult for the system to identify or re-identify when viewed directly from above
- Maintaining an oblique viewing angle improves tracking continuity and reduces the likelihood of subject confusion in complex environments

Known Limitations

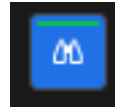
- Follow is not available if obstacle avoidance is OFF
- Tracking performance may degrade in low light environments without NightSense
- Tracking performance may be lower when using thermal
- Shadow can reidentify a lost track in 3-5 seconds assuming the subject continues moving at a roughly constant velocity. Shadow may mistakenly jump tracks during this time if it sees a similar subject.
- Subject Tracking cannot operate concurrently with VPS-dependent modes or 3D Scan due to system resource load

How to use Shadow Track and Follow

1. Enter Remote Flight Deck
2. Locate the **Shadow icon** within the **Action Bar** and select it to enable tracking
 - Optionally use the **'U' shortcut key** to toggle Shadow ON or OFF



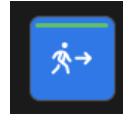
TRACK OFF



TRACK ON



FOLLOW OFF



FOLLOW ON

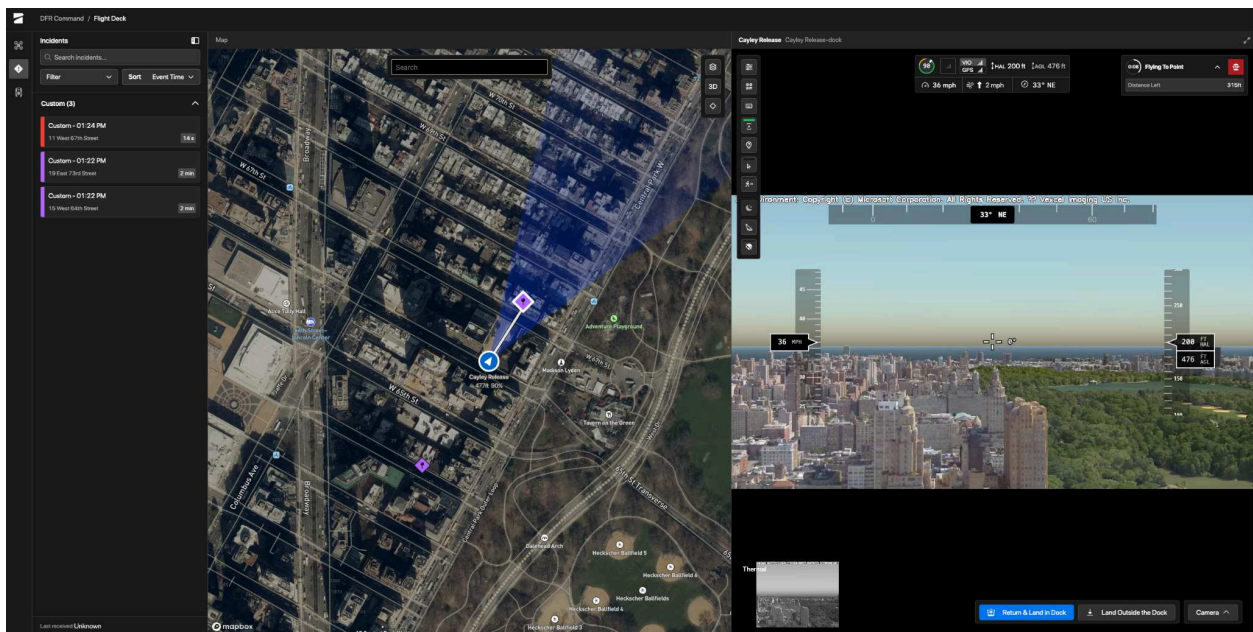
3. When Shadow is enabled, a detection box appears in the video feed as you mouse over people or vehicles available to track
4. Select the box to lock onto a subject and begin tracking
 - Once tracking begins, the outlined box will turn into four corners
 - If **Distance to Centerpoint** is enabled, the current distance automatically displays
5. Optionally switch into Follow mode
 - Use the on-screen buttons or the **'Y' shortcut key** to switch between Subject Track and Follow
 - Track - the gimbal remains locked on the subject while the Remote Pilot flies manually
 - Follow - the drone locks the gimbal and autonomously follows the subject

Custom Markers

Creating a Custom Marker

Right-clicking on the Map View and selecting Create Custom Marker will allow pilots to create a Custom Marker. Custom Markers allow Remote Pilots to set Flight Points on the Map that the drone can fly to. Unlike a Fly to Point, the drone will not immediately begin flying to a custom marker. When a custom marker is created, the marker will appear on the Map. Clicking the custom marker will display details such as:

- Description (optional)
- Who created the marker
- The time the marker was created
- The address of the marker
- And coordinates of the marker



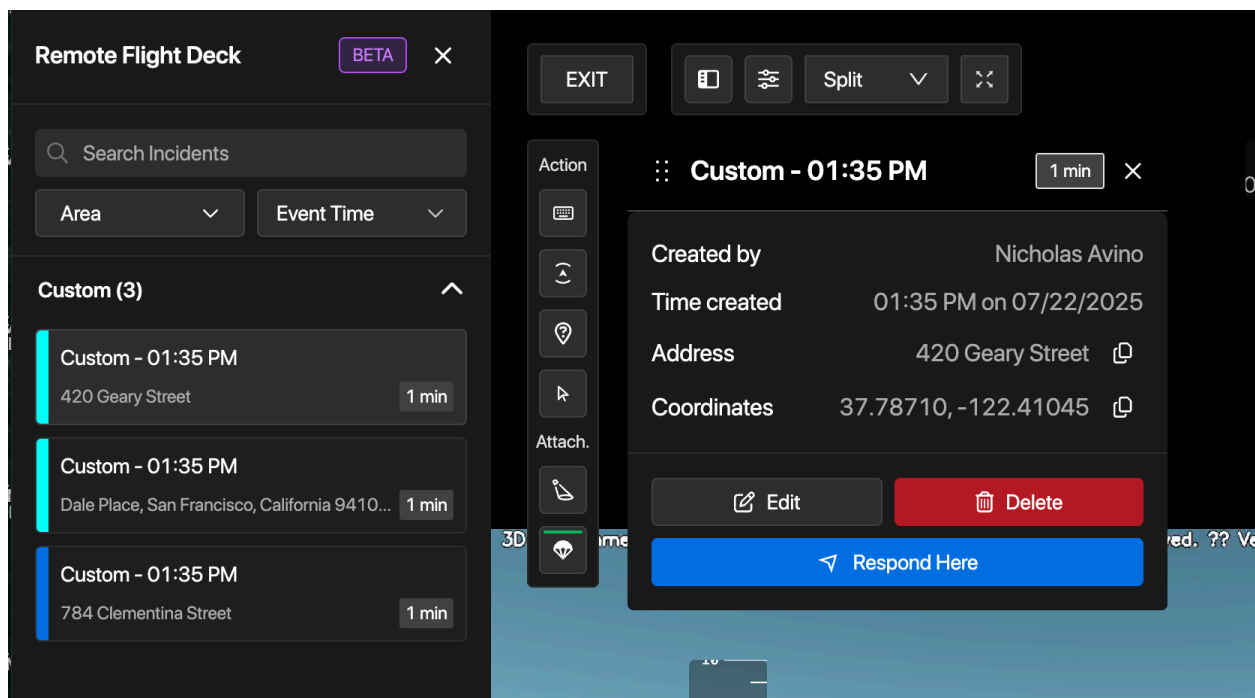
Flying/Responding to a Custom Marker

To respond to a Custom Marker, Remote Pilots can select a Custom Marker from the Map View or the Incident Panel and Select Respond Here. The drone will automatically create a Fly to Point for this location, ascend or descend to the Mission Height defined in the Autonomous Behavior Settings and then proceed to automatically fly to the Customer Marker.

If a standoff distance is set from the marker, the drone will stop and maintain a distance from the final destination, set between 0 and 400 feet.

Using the Incident Panel

Remote Pilots can view the Incident Panel by clicking on a Marker or by selecting the panel icon next to the Settings near the top left corner of Remote Flight Deck. The Incident Panel allows Remote Pilots to look at the Markers in a list view. Selecting a Customer Marker will display more information also allowing Remote Pilots to edit or delete the marker.



Editing or Deleting a Custom Marker

Remote Pilots can select a Custom Marker from the Map View or the Incident Panel and select Edit to edit the name of the marker or add an optional description.

To delete a Customer Marker, Remote Pilots can select a Custom Marker from the Map View or the Incident Panel and select Delete.

Moving a Custom Marker

When responding to a Custom Marker the drone will automatically create a Fly to Point. Remote Pilots can move the Fly to Point associated with this Custom Marker, however the Custom Marker itself can not be moved.

Keep-in and Keep-out Geofences

Geofence Overview

The organization's Site mapped out for Dock and Remote Operations will contain Zones that can be enforced as Keep-in areas and Keep-out areas (Geofences). The drone will never leave a Keep-in Geofence area and the drone will never enter a Keep-out Geofence area. Remote Pilots should become familiar with the Site Zones and whether they are Geofence enforced. *More information can be found in Initialization > Configuring Sites.*

If Site Zones are Geofence-enforced with Keep-in and Keep-out areas, they will be visible on the Map View. Keep-in Geofence areas will have green wall boundaries with no color fill, and Keep-out Geofence areas will have orange wall boundaries with an orange transparent color fill.

If Site Zones are not Geofence-enforced then they will not be visible in the Map View in Remote Flight Deck and the drone will not Keep-in or Keep-out of any specific areas.

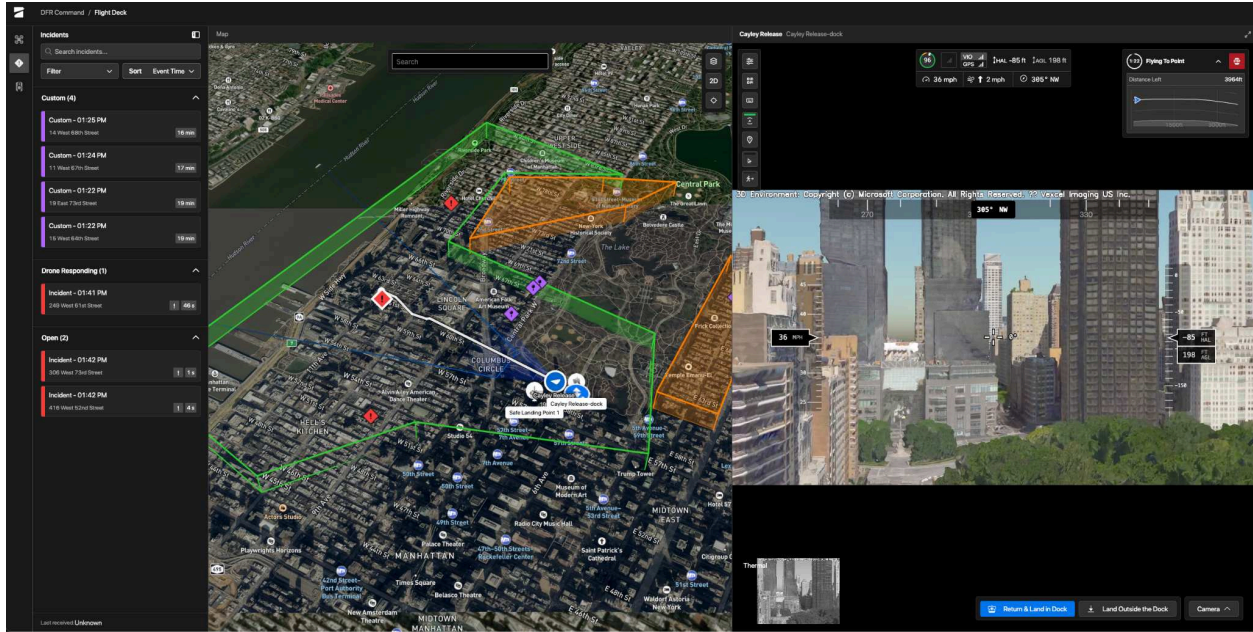
Keep-in Geofence Zones

If Geofences are enforced, the drone will launch inside of a Keep-in Zone and will never leave the Geofence boundaries of the Keep-in Zone.

Remote Pilots can fly between multiple Keep-in Zones as long as they overlap (and the overlapping portion provides at least 15 feet of space for the drone to pass through from one zone to the next). Non-overlapping Keep-in Zones are allowed but the drone cannot fly from one zone to the other.

If a Fly to Point is set and it is outside of the current Keep-in Zone the drone is in or is inside of a Keep-out Zone then the drone will attempt to fly to the closest point within the current Keep-in Zone. If a Fly to Point is set inside of a non-overlapping Keep-in Zone, the drone will fail to create the Fly to Point mission.

If a Fly to Point is set and the flight path intersects with a Keep-out area, the drone will navigate around the Keep-out area until it reaches the Fly to Point.



Keep-out Geofence Zones

If Geofences are enforced, the drone will always stay outside of Keep-out Zones.

Keep-out Zones should always exist inside of Keep-in Zones.

- Since the drone will never leave a Keep-in Zone, it would be redundant to add a Keep-out Zone outside of the Keep-in Zone. We recommend avoiding any unnecessary complexity to your Site Geofences.

Note, a Site cannot have only Keep-out Geofences.

Minimum Width and Geofence Margins

WARNING

Risk of collision or loss of control.

The drone will stop approximately 3–6 ft (1–2 m) from the edge of a Geofence. Therefore, sites created inside Skydio Cloud should not be created with any Geofences that have any narrow passages (less than 15 ft (5 m) of space between walls, floors, and ceilings). Doing so may not leave enough room for maneuver through all areas of the passageway, potentially causing the drone to become “stuck” or unmaneuverable. Remote Pilots should not attempt to pass through any narrow Geofence passages that have less than 15 feet (5 m) of space between walls, floors, and ceilings. For more information, see Inflight > Keep in and Keep out Geofences > Minimum Width and Geofence Margins.

The boundaries of a Geofence exist in three dimensional space, including the lateral walls, floor, and ceiling. If the drone reaches any boundary of a Geofence (walls, floor, ceiling), the Remote Pilot will be notified that the edge of the boundary has been reached. The drone will stop approximately 3-6 ft (1-2 m) from the edge of a Geofence.

Editing Geofences while Flying/Preparing to Fly

If any changes are made to Site Geofences with Remote Flight Deck already open, the changes will not take effect until the user exits and re-enters Remote Flight Deck. The Map View in Skydio Cloud may reflect these changes but the vehicle will not use them until the drone enters the Post-flight Uploading state or has returned to the Online (and ready to fly) state at which point these changes should be visible in the Map View in Remote Flight Deck.

Setting Height Ceilings with Varying Terrain

If the drone encounters a hill, mountain, or elevated natural terrain, the drone can continue flying up the elevated terrain as long as it remains within a certain distance above the ground level (AGL). The maximum AGL altitude you can fly will be defined in your FAA BVLOS waiver.

However, there are two settings within the flight system that may restrict flight up a hill if not properly set; 1) the Geofence Ceiling and 2) the Height Ceiling.

The Geofence Ceiling and Height Ceiling are both a fixed height above launch and do not take into account changes in terrain elevation. If the drone is traversing up a hill then it might become restricted or 'stuck' if it encounters the ceiling before it is able to traverse over the elevated terrain.

However, because the Height Ceiling can be changed live during flight and the Geofence Ceiling cannot, we recommend using the Height Ceiling to regulate altitude when flying in environments with elevated terrain and adjusting the ceiling as needed.

When setting the Geofence Ceiling (in the Mission Planning phase) we recommend setting the ceiling above the highest point in the operating environment but below the maximum altitude above ground level (AGL). If Remote Pilots are using both a Geofence Ceiling and Height Ceiling then they should be sure the Geofence Ceiling is set above any potential Height Ceiling that may need to be set.

NOTICE: All users of the flight system must always follow FAA and country-specific civil aviation authority regulations, as well as local, state, and federal laws and regulations when operating Skydio X10. Remote Pilots must not fly higher than the maximum height defined in their organization's FAA waiver. If organizations do not have a defined height restriction then Remote Pilots must not fly higher than 400 feet AGL. Remote Pilots should use the Height Ceiling setting, not the Geofence Ceiling setting to regulate altitude when complying with FAA waivers and height restrictions.

Returning to Dock with Geofences

When a vehicle is returning to Dock or flying to a Safe Landing Point, it will fly there using a straight-line path from the current location of the drone to the Dock. If the straight-line path is obstructed (e.g., a Keep-out Zone) then the drone will fly the shortest path back to the Dock without crossing the Geofence.

In a situation where the specified return height is incompatible with the Geofence heights, the vehicle might fly over or under Geofence Zones.

Flying Under or Over a Keep-out Geofence Area

WARNING

Risk of collision or loss of control.

Skydio does not recommend creating floating Geofences or adding unnecessary complexity to Geofence Zones. Flying through complex Geofence environments limits the drone's ability to safely maneuver in the event the Remote Pilot encounters air traffic, obstacles, or other flight hazards. Extreme caution must be exercised when flying under or over a Keep-out Geofence Area or when flying in complex Geofence environments.

Using Attachments

NOTE: Attachments add weight to the drone and will reduce the overall flight time and speed, even if the attachments are not in use. Additionally, when attachments are in use, they will draw power from the X10 battery. Therefore

Remote Pilots can expect shorter flight times when flying with attachments powered on.

Speaker

To operate the Speaker attachment, Remote Pilots must first set the angle of the Speaker before flight.

Once launched, Remote Pilots can select the Speaker action within the flight screen of Skydio Remote Flight Deck.

From here, pre-recorded audio files can be played, which will be broadcast through the Speaker. The Speaker attachment comes preloaded with three audio files:

- Siren
- Buzzer
- Evacuate

Users can also add pre-recorded audio files to the Media SD card on the drone. To do this, the media card must be removed from the drone and inserted into the device containing the desired audio files. Users should locate the folder named 'audio_files' and place the pre-recorded audio files here in this folder. Once the transfer is complete, the Media SD card should be reinserted back into the drone. The custom audio files will then appear when the Speaker attachment is selected within Remote Flight Deck.

Spotlight

To use the Spotlight attachment, Remote Pilots must first set the angle of the Spotlight before flight.

Once launched, Remote Pilots can select the Spotlight icon in the Attachments panel within Remote Flight Deck to turn the Spotlight on and off.

NOTE: More information can be found in the [Safety Guidelines \(Attachments - Spotlight\)](#).

NightSense

To operate the NightSense Attachments, Remote Pilots must ensure that **Low Light Mode** is enabled in the **Sensing Settings**.

Once Low Light Mode is enabled, NightSense can be controlled by selecting the NightSense icon in the Attachments panel in Remote Flight Deck.

NightSense settings can be accessed by selecting **Settings > Attachments > NightSense** where the Remote Pilot can set whether NightSense should automatically turn on when entering Low Light Mode.

When Low Light Mode is enabled, obstacle avoidance is disabled unless NightSense is active. When in Low Light Mode without NightSense (GPS required), top speed is 45 mph (20 m/s) (when flying with no attachments in ideal conditions such as no wind, no precipitation, higher air density, etc.)

When in Low Light Mode with NightSense enabled, top speed is 18 mph (8 m/s) in ideal conditions. Remote Pilots must always be aware of the drone's top speed, surroundings, controller sensitivity, and adjust the flight settings accordingly to suit the mission and environment. Flying without obstacle avoidance increases the risk of collision.

NOTE: More information can be found in the [Safety Guidelines \(Attachments - NightSense\)](#).

Parachute (Early Access Program)

Skydio Parachute for X10 is an attachment built to enable compliant operations over people for Part 107 customers and to keep people on the ground safe in the extremely rare case where Skydio X10 flights are terminated outside of intentional landing.

More information about flying with Parachute (Early Access Program) can be found by visiting [this resource](#).

NOTE: There is no appreciable risk of accidental deployment of the parachute. While installing the parachute on the drone or working in close proximity, eye protection may be utilized as an additional layer of protection.

Airspace Deconfliction

ADS-B

Automatic Dependent Surveillance–Broadcast (ADS-B) is a surveillance technology that enables situational awareness of nearby crewed aircraft.

Skydio X10 is equipped with an onboard ADS-B In receiver, which detects ADS-B Out signals broadcast by crewed aircraft. This allows Remote Flight Deck to display nearby air traffic in real-time and issue alerts when traffic enters a pilot-defined proximity.

Hovering or clicking and holding on an aircraft in the Map View will display more information about that aircraft (such as altitude and heading).

Remote Pilots may not see any immediate air traffic in their area.

- Selecting the **FUS** icon in the telemetry bar will display the ADS-B connection status so Remote Pilots can verify that ADS-B is connected and functioning.

Performing a Safe State Maneuver

Remote Pilots must yield to all crewed aircraft and perform a safe state maneuver (safely descend below 200 ft (~60 m) and/or within 50 ft (15 m) of a building) if they encounter air traffic that conflicts with the flight.

Hovering or clicking and holding on an aircraft in the Map View displays more information about that aircraft (such as altitude and heading).

WARNING

Risk of mid-air collision causing serious injury or death.

In rare cases, non-cooperative crewed aircraft may not be transmitting ADS-B. These aircraft will not show up on the map. To avoid potential airspace conflicts, Remote Pilots should maintain situational awareness at all times.

Skydio Drone-to-drone Deconfliction (Beta)

If there are multiple Skydio X10 drones operating in the same Site and within the same Cloud organization, they will automatically deconflict with one another.

With deconfliction enabled, Remote Pilots may occasionally see warnings that drones have paused flight for other drone traffic. Pauses should last no more than 10-15 seconds. Remote Pilots may override the pause and resume manual flight, if needed.

WARNING

Risk of mid-air collision and serious injury.

Overriding an automatically paused flight due to drone-to-drone deconfliction carries a significant risk of mid-air collision. Skydio strongly recommends that pilots avoid overriding deconfliction events when performing operations over people. For more information, see Inflight > Airspace Deconfliction > Skydio Drone-to-drone Deconfliction (Beta).

NOTE:

- *Docks must be in the Same Site in order for their drones to deconflict.*
- *Sites will be limited to 6 Docks.*

Deconflicting with other UAS/UAV Air Traffic

If Remote Pilots encounter other UAS/UAV air traffic that conflicts with their flight path or mission, it is the responsibility of the Remote Pilot to maintain situational awareness and if necessary; pause/stop the flight, maneuver to a safe area, and/or land in order to avoid a collision.

Flying at Night/Flying in Precipitation

This information can also be found in *Preflight > Settings for Flying at Night/Flying in Precipitation*.

Flying at Night with NightSense

When flying at Night **with NightSense**, Remote Pilots should:

- **Enable Low Light Mode** - Enable Low Light Mode in the Sensing Menu.

- By default, NightSense will automatically turn on when entering Low Light mode. NightSense can also be controlled via the left sidebar attachment panel
- **Enter into the Attachment > NightSense settings** to set preferences for flight.
- **Turn on strobe lights** to help other aircraft maintain visibility with Skydio X10.
- **Tip: The thermal camera** and Map View can be used to improve situational awareness and help Remote Pilots perform their mission in low light conditions or at night when the color camera may not be as effective.
- **Tip: AR Street Overlay and Markers AR** can be used to help Remote Pilots gain situational awareness when flying at night or in low visibility conditions.

NOTE: More information can be found in *Safety Guidelines: Attachments - NightSense*.

Flying at Night without NightSense

When flying at Night **without NightSense**, Remote Pilots should:

- **Enable Low Light Mode** - Enable Low Light Mode in the Sensing Menu.
- **Stay clear of obstacles** - Obstacle avoidance is disabled when flying in low light mode without NightSense. Extra caution should be taken when piloting the drone. Remote Pilots must always be aware of obstacles in their environment.
- **Maintain a strong GPS signal** during flight by monitoring telemetry data and system status. If the drone is near or underneath large structures, or flying where the drone doesn't have a clear view of the sky, then the drone may experience poor GPS signal.
- **Turn on strobe lights** to help other aircraft maintain visibility with your Skydio X10.
- **Tip: The thermal camera** and Map View can be used to improve situational awareness and help Remote Pilots perform their mission in low light conditions or at night when the color camera may not be as effective.

- **Tip: AR Street Overlay and Markers AR** can be used to help Remote Pilots gain situational awareness when flying at night or in low visibility conditions.

Flying at Night with NightSense in Precipitation (Disable NightSense)

When flying at Night **with NightSense in Precipitation**, Remote Pilots should:

- **Enable Low Light Mode** - Enable Low Light Mode in the Sensing Menu.
- **Disable NightSense** - Do not enable NightSense when flying in precipitation. NightSense may be attached, but not enabled when flying in precipitation.
- **Stay clear of obstacles** - Obstacle avoidance is disabled when flying in low light mode without NightSense. Extra caution should be taken when piloting the drone. Remote Pilots must always be aware of obstacles in their environment.
- **Maintain a strong GPS signal** during flight by monitoring telemetry data and system status. If the drone is near or underneath large structures, or flying where the drone doesn't have a clear view of the sky, then the drone may experience poor GPS signal.
- **Turn on strobe lights** to help other aircraft maintain visibility with Skydio X10.
- **Tip: AR Street Overlay and Markers AR** can be used to help Remote Pilots gain situational awareness when flying at night or in low visibility conditions.

Flying at Night without NightSense in Precipitation

When flying at Night **without NightSense in Precipitation**, Remote Pilots should:

- **Enable Low Light Mode** - Enable Low Light Mode in the Sensing Menu.
- **Stay clear of obstacles** - Obstacle avoidance is disabled when flying in low light mode without NightSense. Extra caution should be taken when piloting the drone. Remote Pilots must always be aware of obstacles in their environment.
- **Maintain a strong GPS signal** during flight by monitoring telemetry data and system status. If the drone is near or underneath large structures, or flying where the drone doesn't have a clear view of the sky, then the drone may experience poor GPS signal.
- **Turn on strobe lights** to help other aircraft maintain visibility with Skydio X10.
- **Tip: AR Street Overlay and Markers AR** can be used to help Remote Pilots gain situational awareness when flying at night or in low visibility conditions.

WARNING

Risk of collision or serious injury.

When Low Light Mode is enabled, obstacle avoidance is disabled unless NightSense is active. When in Low Light Mode without NightSense (GPS required), top speed is 45 mph (20 m/s) (when flying with no attachments in ideal conditions such as no wind, no precipitation, higher air density, etc.)

When in Low Light Mode with NightSense enabled, top speed is 18 mph (8 m/s) in ideal conditions. The Remote Pilot should always be aware of the drone's top speed, surroundings, controller sensitivity, and adjust the flight settings accordingly to suit the mission and environment. Flying without obstacle avoidance increases the risk of collision.

Flying in Precipitation (Daytime)

When flying **in Precipitation** during the day, Remote Pilots should:

- **Disable obstacle avoidance** - Disable obstacle avoidance when flying in precipitation.
- **Stay clear of obstacles** - Obstacle avoidance is disabled when flying in low light mode without NightSense. Extra caution should be taken when piloting

the drone. Remote Pilots must always be aware of obstacles in their environment.

- **Monitor GPS and VIO health** - If obstacle avoidance is disabled the drone will use GPS navigation as the primary navigation source. If GPS degrades, then the drone will fall back to VIO (if healthy). Remote Pilots should monitor both sources of navigation when flying without obstacle avoidance (in precipitation).
- **Turn on strobe lights** to help other aircraft maintain visibility with Skydio X10.
- **Tip: AR Street Overlay and Markers AR** can be used to help Remote Pilots gain situational awareness when flying at night or in low visibility conditions.

Commandeering a Flight

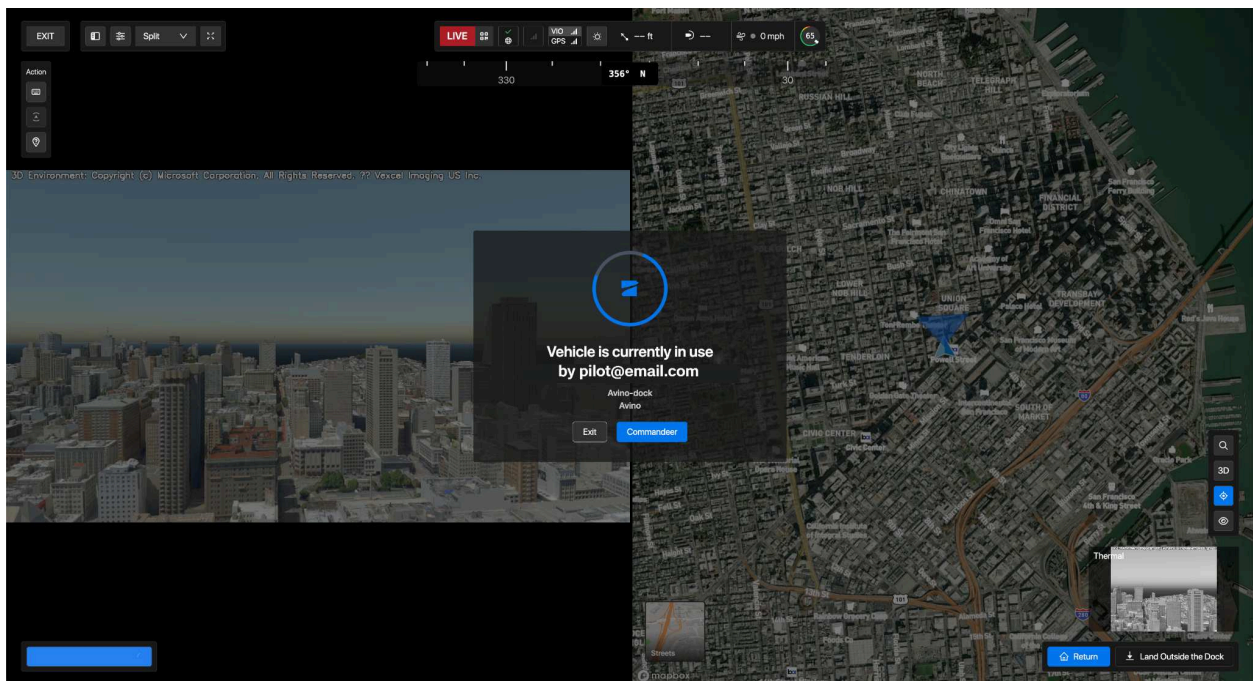
Remote Pilots can commandeer (take control) of drones that are actively flying within their organization. If Remote Pilots are not currently operating another flight system, they can take control from a livestream or take control from the Flight System page in Skydio Cloud.

Taking Control from a Livestream

While viewing a Livestream, Remote Pilots can select “Take Control” to commandeer this drone. If they have not yet approved Remote ID they will be prompted to do so before taking over.

Taking Control from the Flight System page in Skydio Cloud

From the Flight System Page Remote Pilots can select “Fly Now” to Commandeer a Drone already in flight. When they enter Remote Flight Deck you will be prompted to Take Control. If they have not yet approved Remote ID they will be prompted to do so before taking over.



Returning and Landing

Return & Land in Dock (Pilot Initiated)

- When Remote Pilots select Return & Land in Dock, the drone will ascend or descend to the Return Height and automatically return to the Dock and land using the behaviors set in Settings > Return.
- When the drone approaches the Dock, the camera settings may adjust to optimize Dock detection and landing.
- If the drone is unable to land in the Dock on the first attempt (e.g., due to environmental factors such as high winds) it will make up to 10 landing attempts. After that it will attempt to automatically land at the Safe Landing Point.
- If landing in the Dock becomes unachievable, the drone will land at the Safe Landing Point or the pilot can hover over a safe area to land and select Land in Place.
- The Remote Pilot must notify all people in the Dock operational area that the drone is returning.



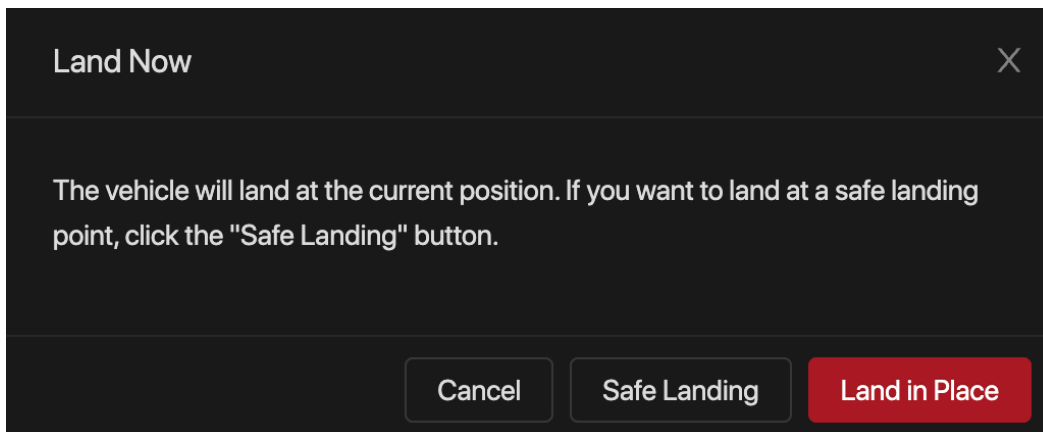
Returning to Dock

Pilot initiated return

Camera settings adjusted for return

Land in Place (Pilot Initiated)

- When Remote Pilots select Land in Place, they will be able to select between Landing in Place or at the Safe Landing Point
- Commanding X10 to **Land in Place** will result in X10 descending without any lateral movement. The pilot can nudge the drone using the WASD keys on the keyboard to adjust the drone as it lands.
- When Landing in Place, the drone will travel straight down and land in place without any lateral movement.



Safe Landing Point (Pilot Initiated)

- When Remote Pilots Select Land in Place, they will be able to select between Landing in Place or at the Safe Landing Point
- Commanding X10 to Land at the **Safe Landing Point** will result in X10 ascending or descending to the specified Return Height and returning to the Safe Landing Point and automatically landing. The pilot can nudge the drone using the WASD keys on the keyboard to adjust the drone as it lands.
- If for any reason the drone cannot land at the Safe Landing Point, it will perform a Smart Landing.

Safe Landing Point (Automatic)

- Safe Landing Points are preset landing areas that can be added to your Site Zone. It will apply to all Docks in that Site. Visit *Initialization > Safe Landing Points* for more information on setting up a Safe Landing Point.
- In situations where the drone cannot land in the Dock due to some off-nominal condition (e.g., power or network loss of the Dock), the drone will autonomously land in a nearby Safe Landing Point instead. It is therefore recommended to place a Safe Landing Point near all Dock locations.

Smart Landing (Automatic)

- If the drone is unable to Land in the Dock or at a Safe Landing Point, it will attempt a Smart Landing.
- In the final stages of landing, X10 will have obstacle avoidance disabled however, if obstacle avoidance was enabled prior to landing then the drone will still attempt to nudge itself over a flat area and avoid obstacles during the

final stages of descent. If obstacle avoidance was disabled prior to landing then the drone will not avoid obstructions, ledges, uneven terrain, etc. during the final stages of descent therefore it's important to navigate X10 to be over a flat surface if you are landing outside of the Dock with obstacle avoidance disabled.

Canceling a Landing

- To cancel a Landing, Remote Pilots can select “Cancel Landing”.

NOTE: *If the drone lands outside the Dock it will need to be physically collected and placed back inside the Dock.*

Unaligned Landings

- In the event that the drone lands out of alignment with the Dock platform, the Remote Pilot will receive a prompt in Remote Flight Deck notifying them that the drone has failed to properly land in the Dock.
- Remote Pilots should use the Dock Inspection Cameras to check if the drone is fully visible and level on the Dock platform.
 - If so, and it is safe to launch, Remote Pilots can attempt to launch and retry the landing.
 - If the drone is not fully visible, is not level on the Dock platform, is obstructed, or is otherwise not safe to launch, then the drone will need to be physically collected and placed back inside the Dock.

Low Battery Behavior

The Battery Indicator **dynamically updates** during flight based on the drone's altitude and distance from the return location. Remote Pilots should monitor the indicator to understand how much battery is:

- Available for flight
- Required for return (yellow portion)
- Required to land (red portion)

Skydio X10 will assess the altitude and distance from the Dock and begin returning there when it only has enough battery remaining to return and land. **It is strongly recommended Remote Pilots allow the return to initiate at this time.**

- A yellow border will appear, along with the message, **Returning to Dock due to low battery**

However, if necessary, Remote Pilots can cancel the return and re-initiate it later.

- Waiting too long to re-initiate may result in the drone landing before it reaches the Dock due to low battery

WARNING

Risk of serious injury, property damage, or loss of aircraft.

The Remote Pilot may choose to cancel an automated landing or delay the return when the Return Battery capacity has been reached at their own risk. The Remote Pilot is solely responsible for the potential loss of the drone and/or any serious bodily harm and property damage that may result. For more information, see Inflight > Low Battery Behavior.

NOTE: *While flying, Remote Pilots should always monitor Remote Flight Deck for alerts relating to battery levels, signal quality, and other in-flight notifications.*

On-Scene Battery Replacement

Field battery swaps allow Remote Pilots to land outside of the Dock, have a ground team member replace the battery, resume flight, and successfully return and land back in the Dock once the mission completes.

- Extends on-scene operational time during prolonged incidents
- Skydio X10 uses Cellular LTE connectivity and Dock-derived telemetry, including barometric data, to safely continue missions and later return to the Dock

NOTE: *A successful setup flight must be completed before using this feature.*

Requirements

- **Cellular LTE must remain enabled** on the drone throughout the operation.
- **Dock batteries are required if you intend to return and land inside the Dock** after the swap.
 - Standard X10 batteries (non-Dock batteries) are compatible, but Skydio X10 will return to the Safe Landing Point nearest the Dock (as opposed to landing directly inside)
 - If a non-Dock battery is inserted, an alert will notify the Remote Pilot when a return is initiated
 - The drone automatically identifies battery type using serial number pattern matching
- Batteries must be within the **normal operating temperature range**. Avoid installing batteries that are excessively cold or hot.
- When relaunching from the field, the launch area should be **close to the landing location** and provide clear visibility and obstacle-free surroundings.

NOTE: *Loss of Cellular LTE may prevent reconnection after launch, especially if the ground landing point is at the edge of radio or cellular coverage.*

Operational Notes

Remote Pilots must manually land the drone at the chosen ground location, as autonomous ground landings are not supported.

Multiple field swaps are supported, including mixed sequences, although the use of Dock batteries is preferred. (e.g., Dock battery > non-Dock battery > Dock battery).

After a new battery is installed in the field, Remote Pilots may see a brief **Return to Dock (RTD) Unavailable** prompt. This clears automatically once the drone gains forward movement.

If the drone lands in an area with weak or no internet connectivity, you may be unable to resume operations.

- Avoid landing in locations where you expect limited cellular coverage, especially behind large structures or deep within urban canyons.

Accurate barometric data is required for:

- Determining the correct altitude to return to Dock
- Identifying valid Safe Landing Points
- Handling mixed battery sequences

If the barometer on the Dock is malfunctioning, the drone may be unable to calculate the correct return height after launching from the ground.

Limitations

- Encryption is temporarily unavailable when launching from the ground without engaging the Dock charger.
- The drone will only return to the Dock when a Dock battery is used, otherwise it will return to the Safe Landing Point nearest the Dock.
- Launch points should be within a few meters of the on-scene landing point to support expected return behavior and consistent connectivity.

Lost VIO or GPS During Flight

If Skydio X10 loses VIO, the drone will continue flying using GPS. Actions that require visual navigation will be disabled.

If Skydio X10 loses GPS signal, the drone will continue flying using the vision system. Actions that require GPS will be disabled.

Remote Pilots must exercise caution when flying with only a single source of navigation. If the drone loses both sources of navigation it will begin an Emergency Landing. See *Contingency Protocols and Behaviors > Lost VIO and GPS*.

Contingency Protocols and Behaviors

While flying, Remote Pilots should always monitor Remote Flight Deck for alerts relating to battery levels, signal quality, and other in-flight notifications.

Critical Battery

WARNING

Risk of serious injury or aircraft loss.

Operating the drone with a critical low battery may cause an in-flight power loss, leading to uncontrolled descent and serious bodily injury.

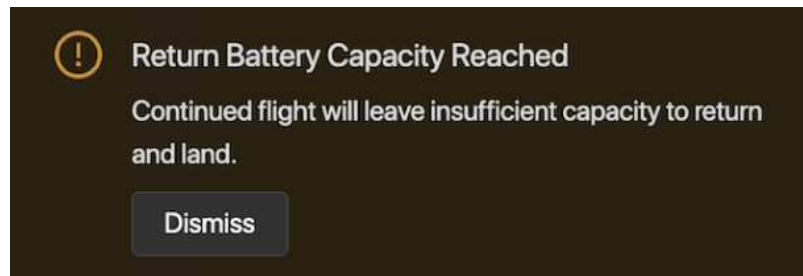
If Remote Pilots chose to cancel the earlier **Drone Battery Low** automatic Dock landing and continued flying, they will receive a series of notifications alerting them about the current status of the drone battery:

1. Return Battery Capacity Reached
2. Landing Soon
3. Landing

Return Battery Capacity Reached

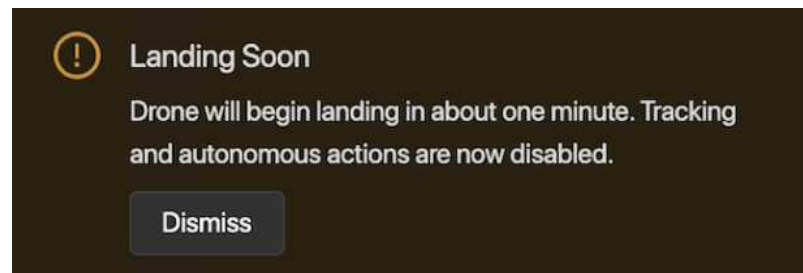
The drone only has enough battery to return and land, based on current conditions such as weather or attachment usage. **If return is delayed beyond this point, the**

drone may not have sufficient battery power to reach the Dock.



Landing Soon

The drone will continue flying, but this notification alerts Remote Pilots approximately one minute before the drone will begin to land in place. Autonomous actions, such as Fly to Point or Return to Dock are disabled. Remote Pilots may choose to continue flying, however, **it is strongly recommended that Remote Pilots fly the drone to a safe location and land soon.**



Landing

The battery level is too low to continue flying and the drone will begin looking for a clear and flat landing surface. The drone will land in place and may make minor adjustments to land in the flattest spot. The Remote Pilot has the ability to make small, nudging adjustments. **The drone will not return to any designated return location.**

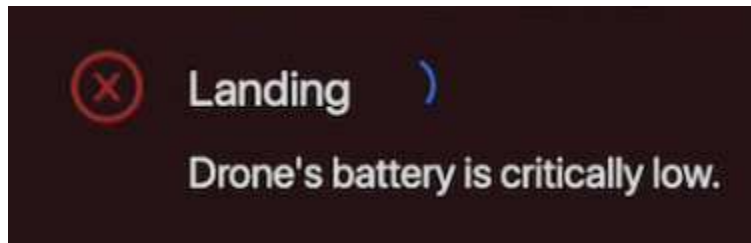
If the drone is descending toward an unsafe area (e.g., water, traffic), the Remote Pilot may cancel the landing, quickly reposition the drone to a safer location, and then resume the landing process.

If the drone is descending toward the Dock, then in some scenarios the drone may autonomously try to land in the Dock if it detects conditions are sufficient for a landing attempt.

WARNING

Risk of collision or equipment damage.

When obstacle avoidance is disabled, the drone will descend and land without detecting or identifying a flat landing surface.



Lost Connection

CAUTION

Risk of uncontrolled landing or aircraft loss.

Before flight, ensure Lost Connection Return Behaviors are properly set. This critical step allows the drone to return safely and land in an accessible location if the connection is lost.

If Skydio X10 loses both SL and 5G connections during a mission, it will automatically return to the Dock.

Remote Pilots should navigate to **Remote Flight Deck Settings > Return > Lost Connection** or **Cloud > Settings > Flight Settings > Lost Connection** to set the amount of time that the drone will hover in place before returning

- The slider is used to set a delay between 0 and 180 seconds (default is 10 seconds)
- This delay allows time to re-establish connection before the drone begins returning

After returning to the Dock:

- Skydio X10 will attempt to reconnect for up to 30 seconds
- If connection is restored during this time, the drone will land in the Dock
- If connection is **not** restored, the drone will land at the nearest Safe Landing Point

NOTE: The 30-second reconnect window at the Dock is fixed and cannot be changed.

Lost Connection Behavior

Lost Connection Return
The drone will return to the dock if it loses connection

The amount of time the drone will hover in place before returning 0 s 180 s s

Skydio X10 also has a separate Skydio Connect SL connection from the Drone to the Dock. If this connection is interrupted, the drone will not be able to land in the Dock and will attempt to land at the nearest Safe Landing Point (if available). If a Safe Landing Point is not available, the drone will perform a Smart Landing.

If the RPIC Loses Connection to the Drone

If the RPIC loses connection to the drone (e.g., experiences a computer crash, Browser failure, Internet outage, power outage, System freeze, or other failure) that prevents the operation of the drone, the drone will follow the Lost Connection behavior that was set in **Remote Flight Deck > Settings > Return/Lost Connection**.

Emergency Landing

Lost VIO and GPS

If the drone loses both VIO and GPS, it will enter Attitude Mode and immediately begin an Emergency Landing.

When the drone enters Attitude Mode, it is unable to hold position and will only maintain attitude (will drift with the wind). The drone will start to descend slowly until landed.

From Remote Flight Deck, the Remote Pilot is not able to control the drone while in this state. However, if a parachute is attached, it is able to be manually deployed during an Emergency Landing due to Lost VIO and GPS.

If VIO or GPS is recovered, the drone will recover from Attitude mode and control of the drone will return back to the pilot.

System Error

In the rare event the drone experiences an unrecoverable System Error, it will enter Attitude mode and immediately begin an Emergency Landing.

When the drone enters Attitude Mode, the drone is unable to hold position and will only maintain attitude (will drift with the wind).

The drone will start to descend slowly until landed. From Remote Flight Deck, the pilot is not able to control the drone while in this Emergency Landing state. If a parachute is attached, it may not be able to be manually deployed during this state.

DANGER

Risk of serious bodily injury or death during Emergency Landing.

If the drone enters Attitude Mode, it will automatically descend and perform an Emergency Landing without pilot control. Emergency Landings cannot be canceled. Use extreme caution when operating with a single navigation source to reduce the risk of collision and serious injury. For more information, see: [Inflight > Emergency Landing](#).

WARNING

Risk of serious injury or property damage during emergency descent.

The Parachute attachment is designed to deploy automatically based on detection of abnormal flight conditions. Remote Pilots may also deploy the Parachute manually, if they determine it is safe and desirable to do so. In the event of an emergency landing due to system error, the Parachute may not be able to be deployed. For more information, see [Inflight > Emergency Landing](#).

If the Dock Loses Power During Flight

If the Dock loses power during a flight, the drone will be able to continue flying if it has a stable Skydio Connect 5G connection or if the External Radio is independently powered and the drone is within range of the External Radio.

If the Dock loses power during a flight and the drone does not have a stable Skydio Connect 5G or SL Connection, then the drone will immediately follow Lost

Connection protocol. If the External Radio is powered through the Dock and the Dock loses power during flight, the External Radio will also lose power.

Upon return, the drone will hover over the Dock waiting to reconnect. If the drone reconnects, the drone will land in the Dock. If the drone does not reconnect, the drone will go to the nearest Safe Landing Point to the drone's current position (if one exists) and land there. If a Safe Landing Point doesn't exist (or the drone does not have enough battery to reach the Safe Landing Point), the drone will attempt a *Smart Landing* nearby.

If the Dock Emergency Stop is Activated

If the Emergency Stop is activated during flight, the flight will not be interrupted. Upon return, the drone will hover over the Dock. If the Dock was fully open when the Emergency Stop was activated then the Dock will remain open and when the drone returns, it will attempt to land in the Dock. Otherwise, the Dock will remain closed and the drone will go to the nearest Safe Landing Point to the drone's current position (if one exists) and land there. If a Safe Landing Point doesn't exist (or the drone does not have enough battery to reach the Safe Landing Point), the drone will attempt a *Smart Landing* nearby.

If the Emergency Stop is activated, the Dock will need to be reset before the next operational use of the flight system. More information can be found in *Flight System Overview > Dock > Dock Emergency Stop*.

Postflight

Overview

When a flight is complete, the system automatically transitions into its postflight sequence. This phase focuses on verifying a successful landing, confirming that data and media are uploaded, and viewing or sharing key information.

Whether Remote Pilots are preparing for another launch or wrapping up the day's operations, postflight tasks help ensure the system is healthy, that data is stored, and the organization remains mission-ready.

This section covers the following tasks:

1. Postflight Inspection
2. Reviewing System Status
3. Accessing Flight Data (Media and Flight Reports)
4. Publishing to the Transparency Dashboard (Optional)
5. Maintenance

Postflight Inspection

Landing

After landing, Remote Pilots should notify all flight crew members on location.

Once the drone seats correctly in the Dock, the system will begin charging and uploading flight data. If the organization has Media Sync, media will also upload at this time.

- To launch another flight, wait for the Dock to fully close and complete postflight tasks
- If another flight is initiated prior to media sync completion, the system will **pause the upload** and **resume automatically** after the next landing
- To remove the drone, wait for the Dock to close completely, and then reopen it to remove the drone

Remote Pilots should use the internal and external Dock cameras to verify that the battery has seated properly, charging has begun, and the surrounding environment is normal.

More details on the types of Dock Landings can be found in *Inflight > Returning and Landing*.

System Status Check

Remote Pilots can use the **Flight Systems Page** as well as **Device Pages** to ensure the flight system is healthy and functioning nominally. Connectivity issues, hardware failures, or other errors that may have occurred during the flight can be found during the system status check.

Any issues should be reported via the organization's standard reporting procedure.

FAA Accident Reporting Requirements

If an accident occurs during a drone flight, the RPIC is required to report it to the Federal Aviation Administration (FAA) within 10 days if any of the following are met:

- The accident results in serious injury to any person or any loss of consciousness

- The accident causes damage to any property (excluding the drone) exceeding \$500 to repair or replace

More detailed information can be found in the [FAA's guidance](#) for Accident Reporting.

Verify Integration Uploads

Administrations can use the **Flight Reports** page to determine the current status of data uploads to an integration, such as Axon Evidence.

Organization Admins can validate integration health by refreshing the Axon Credential card in Axon Settings to check which features are enabled and confirm system status.

Complete Internal Processes

Remote Pilots should complete any additional postflight workflows or documentation required by their organization's standard operating procedures (SOPs).

These requirements may vary depending on agency policies, waiver compliance, or mission type.

Accessing Flight Data

Cloud Users, Remote Pilots, and Org Admins can access synced media and flight logs in Skydio Cloud under the **Media** and **Reports** menus in the left sidebar.

Media

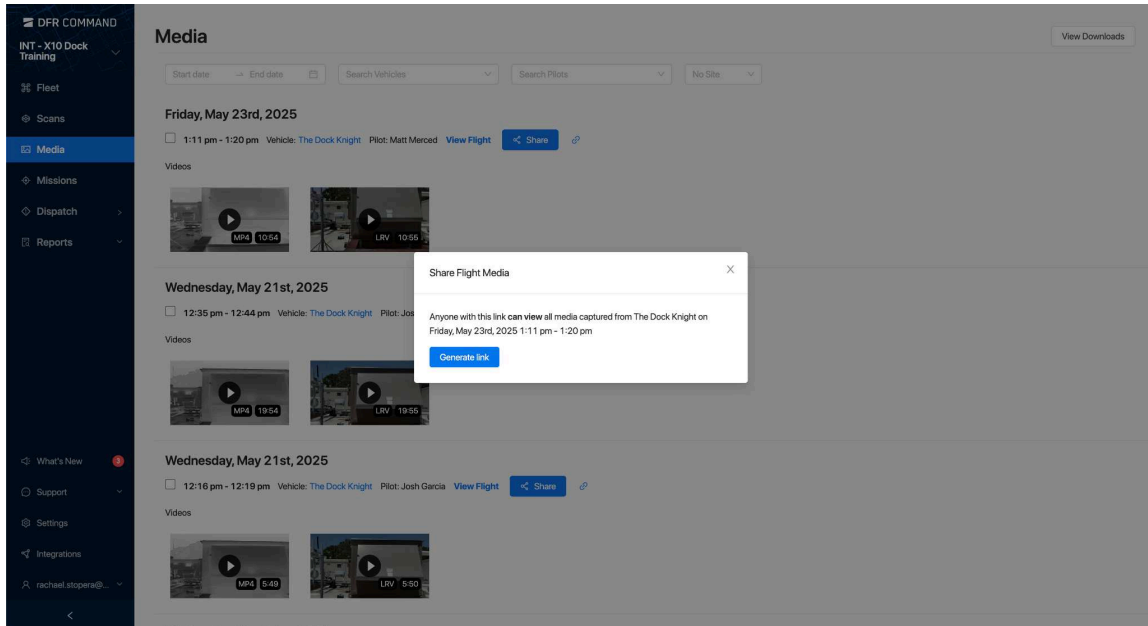
Provides a snapshot of the images and videos captured during flights.

Users can **search for media** and filter by date, vehicles, pilots, or Sites.

The **Share** button allows users to generate a public link. Once the link is generated, the expiration date can be changed.

- By default, all media from the selected flight is viewable for 24 hours

From here, the link can also be revoked if needed.



Users can select the **checkbox** to **download** or **delete** the selected media.

Selecting **View Flight** allows users to view:

- Video of the flight
- Telemetry and flight details (speed, battery level, latitude and longitude)
- Flight System Page (time and flight duration, pilot, flight system details)

Reports

Cloud Users, Remote Pilots, and Org Admins have the ability to view **Reports**. Within the drop-down menu, users can view:

- Summary
- Activity
- Flights
- Alerts

Summary

The **Summary** menu shows a dashboard view of flight activity across the organization. The dates at the top allow users to search for statistics during a specific time period.

Includes key performance metrics such as:

- Total flights and cumulative flight time
- Number of active pilots and drones
- Average flights per day, average flight time, and average time flown per pilot
- A daily flight distribution chart that visualizes trends and peak usage days

This view can help users quickly assess usage patterns, pilot engagement, and overall operational tempo.

Activity

The **Activity** menu provides a detailed breakdown of flight time and usage, organized by either drone or pilot. This view helps track operational trends, individual engagement, and asset utilization over time.

- **Vehicle tab** – Lists all active drones during the selected date range, including number of flights, total flight time, and a link to each drone's flight history
- **Pilot tab** – Displays usage by pilot, showing flight counts, total time flown, and direct access to their flight history

Flights

The **Flights** menu shows a flight-by-flight log for all operations during the selected date range. Each row represents an individual flight and includes key metadata to help with performance tracking, audit readiness, or postflight investigation.

For each flight, users can view:

- Pilot and drone ID
- Launch time and flight duration
- Linked devices, including the drone, battery, sensor package, and attachments
- Integration details (e.g., Axon evidence upload status)
- A link to view full flight details

Flights can be filtered by pilot, drone, battery, sensor package, or attachment type.

Users can select **Export CSV** to export the displayed list into a CSV document.

Alerts

The **Alerts** menu provides a historical log of alert events that occurred during a flight. This page can be used to audit remote operations or investigate issues. Filtering can be set by alert type, drone, or Dock.

For each alert, users can view:

- Alert name and type
- Time the alert occurred
- Associated drone, Dock, or Mission
- Details

Instructions on creating an Alert can be found in the *Initialization* section.

Publishing to the Transparency Dashboard (Optional)

Cloud Users, Remote Pilots, and Organization Admins have the ability to edit, review, and publish flight information to the Transparency Dashboard.

NOTE: Only Organization Admins can set up and configure Transparency Dashboards. Instructions can be found in the Initialization section.

After a flight completes, it will have a default **In Review** status. This means it is not yet public or viewable on the dashboard.

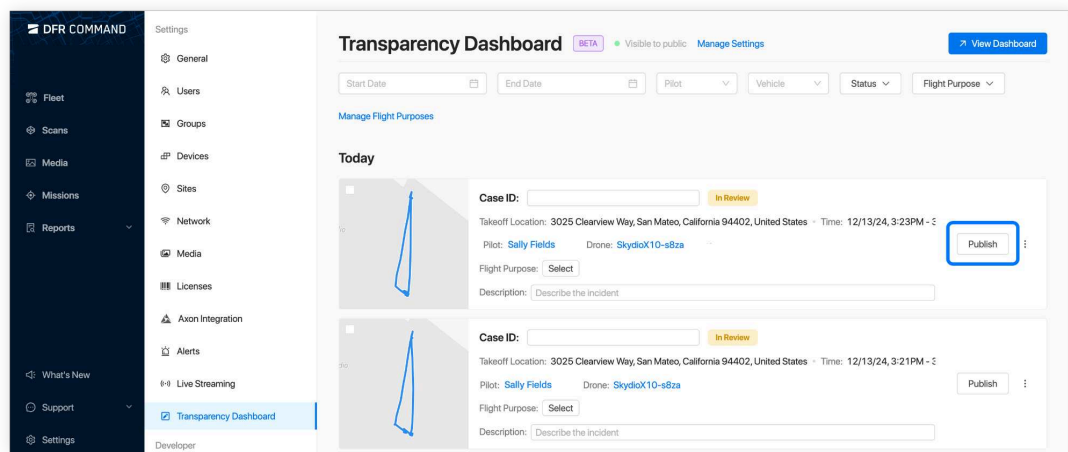
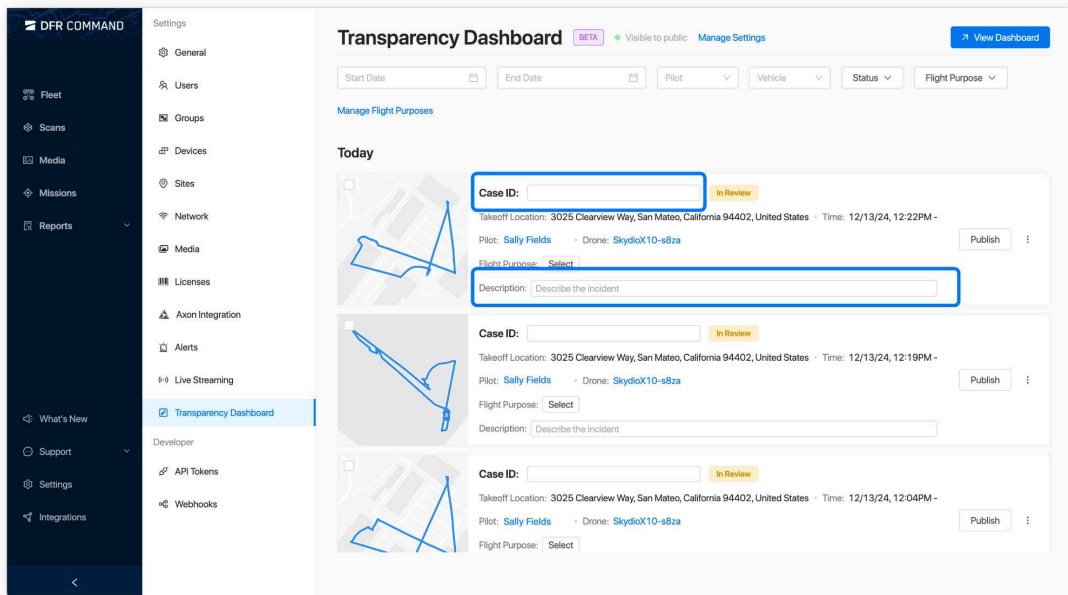
Selecting **Publish** will post it to the external dashboard.

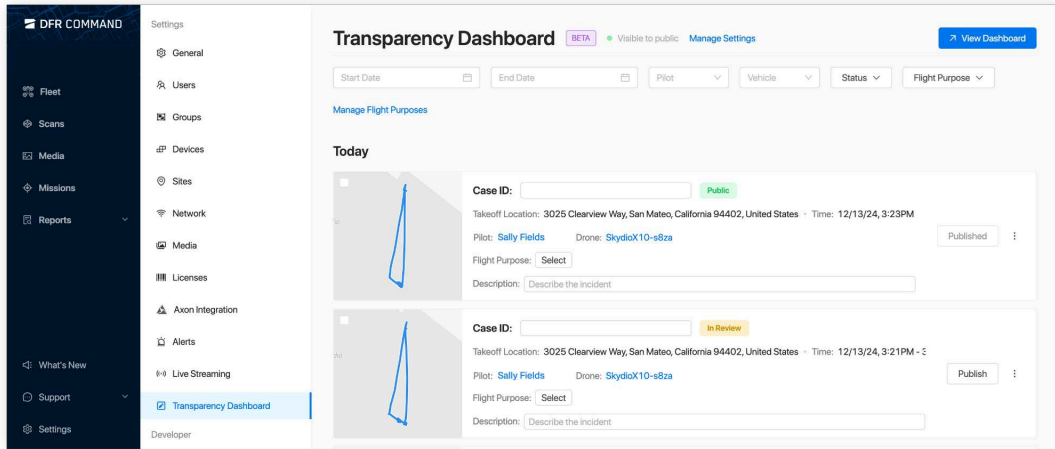
- Once published, the flights will display a green **Public** tag
- If Administrators do not want a flight to be viewable on the dashboard, they should select **Mark Private**

When a flight is published to the dashboard, the following information is displayed publicly:

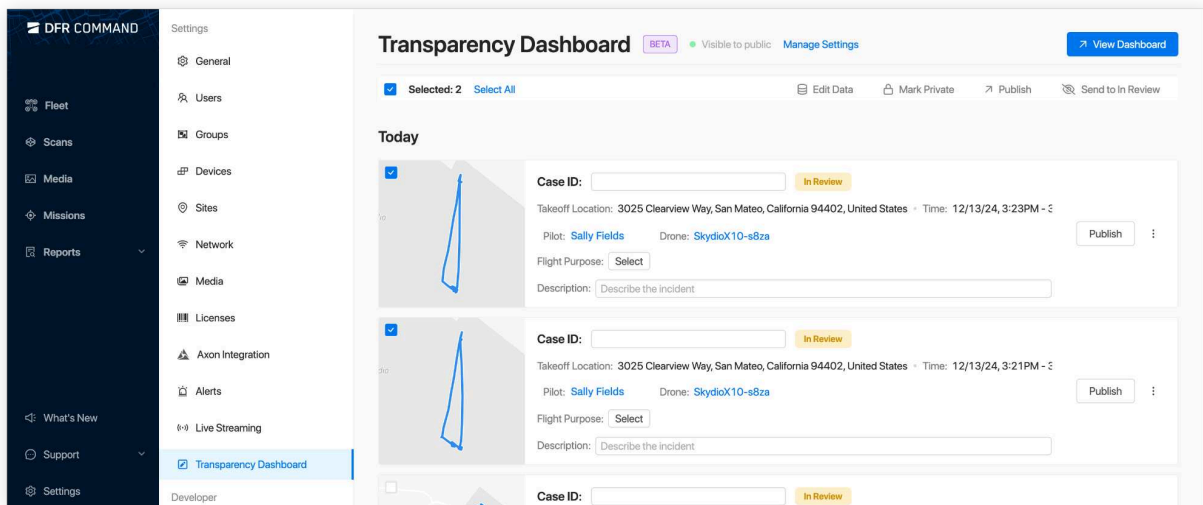
- Date and time of the flight
- Case ID
- Description
- Flight Purpose

If needed, Administrators can **add a Case ID** and a **description** to each flight. Both of these will display on the dashboard when a flight is published.





Administrators can **bulk-update flights with the same case information** (Case ID, Flight Purpose, and Description) by selecting the checkmark box in the flight thumbnail.



To un-publish a flight, Administrators can select the ellipsis (three dots) and then select **Mark Private** or **Send to In Review**.

DFR COMMAND

Settings

- General
- Users
- Groups
- Devices
- Sites
- Network
- Media
- Licenses
- Axon Integration
- Alerts
- Live Streaming
- Transparency Dashboard**
- Developer

Transparency Dashboard BETA Visible to public [Manage Settings](#) [View Dashboard](#)

Start Date End Date Pilot Vehicle Status Flight Purpose

Manage Flight Purposes

Today

Case ID: Public

Takeoff Location: 3025 Clearview Way, San Mateo, California 94402, United States - Time: 12/13/24, 3:23PM

Pilot: **Sally Fields** Drone: **SkydioX10-s8za**

Flight Purpose:

Description:

Case ID: In Review

Takeoff Location: 3025 Clearview Way, San Mateo, California 94402, United States - Time: 12/13/24, 3:21PM - 5

Pilot: **Sally Fields** Drone: **SkydioX10-s8za**

Flight Purpose:

Description:

Maintenance and Troubleshooting

To optimize the performance of the flight system, it's important that the organization inspects the equipment with the Dock cameras, keeps the system updated, and replaces propellers and batteries as-needed. More information can be found in the Skydio Dock for X10 Maintenance Manual.

Uploading Logs

When reaching out to Skydio Support for troubleshooting help, users may be required to upload logs to assist in diagnosing issues.

There are two different types of logs that can be uploaded:

Flight Support Logs contain data from a specific flight. If Pilots experience an issue during flight, such as a failed return to the Dock, they would upload a Flight Support Log.

Device Support Logs include debugging data from outside of a flight, such as failures to launch or device-specific issues (e.g., the Dock camera isn't working). These logs help address issues that occur before or after flight.

How to upload a Flight Support Log

To upload a Flight Support Log, users should:

1. Navigate to the **Flight Systems Page** (Fleet > Select the device)
2. Scroll until they see **Flight History** (located under the Dock camera)
3. Select the ellipsis (three dots)
4. Select **Upload Skydio Flight Support Log**

How to upload a Device Support Log

To upload a Flight Support Log, users should:

1. Open the **Device Page** (Settings > Devices *or* select the device from the Fleet page and the gear icon)
2. From the Device Page, select the Settings tab (under the name of the Device)
3. Within the Tools section, select the **Upload** button next to *Upload Skydio Device Support Log*

Legal

Safe Operation

Before operating the Skydio Dock for X10 Flight System, all users of the flight system (Remote Pilots, Administrators, and Skydio Cloud Users) must review the Skydio Dock for X10 Flight System Operator Manual available at: www.skydio.com/manuals and the applicable Skydio Safety and Operating Guide available at: www.skydio.com/safety.

All users of the flight system should ensure that all documentation is retained for future reference.

Battery

The battery must be handled with extreme care, and users should refer to the Safety Guidelines in this manual and to the Skydio Safety and Operating Guide for additional information.

Only Skydio-approved batteries are compatible with the X10 system. Third-party batteries should not be used.

Skydio X10 batteries must be carefully disposed of according to local environmental laws and guidelines for lithium polymer battery disposal.

Skydio One (1) Year Limited Warranty

Skydio may warrant the included hardware product against defects in materials and workmanship in hardware under normal use in accordance with published guidelines, including but not limited to the Terms of Use, Skydio X10 Operator Manual, and the Skydio Safety and Operating Guide for one year from the date of delivery (the “Limited Warranty”). The Limited Warranty does not warrant against normal wear and tear or damage caused by accident or abuse, and is not applicable to any software provided with the hardware product.

The Limited Warranty is subject to the full terms and detailed information about how to obtain service available at: www.skydio.com/legal/limited-warranty. If you submit a valid claim under this Limited Warranty, Skydio will either repair, replace, or refund

your hardware product at its sole discretion. You may be required to furnish proof of purchase details when making a claim under this Limited Warranty.

Skydio Care for Drones Only

Skydio may offer Skydio Care for drones only as a subscription service at an additional cost that provides protection from collisions, water damage, or lost drones, which are not covered under the Limited Warranty. Skydio Care can be purchased as a one (1) year plan co-extensive with the Limited Warranty, or as a three (3) year plan, which includes a two (2) year extension to the one (1) year term of the Limited Warranty.

Skydio Care is subject to the full terms and detailed information about how to obtain service available at: <https://www.skydio.com/legal/skydio-care-terms-of-service>. If you submit a valid claim under Skydio Care, you may be eligible to purchase discounted drone replacements for otherwise uncovered damage or losses. The Skydio Care benefits are in addition to the rights provided under the Limited Warranty.

California Prop 65 Warnings

Skydio X10 uses lithium-ion batteries, which contain chemicals including cobalt, lithium nickel oxide and nickel, which are known to the State of California to cause cancer and birth defects, or other reproductive harm. For more information visit: www.P65Warnings.ca.gov.

Skydio X10 Controller contains chemicals including cadmium, which are known to the State of California to cause cancer and birth defects, or other reproductive harm. For more information visit: www.P65Warnings.ca.gov.

Skydio X10 Dual Charger contains chemicals including BPA and nickel, which are known to the State of California to cause cancer and birth defects, or other reproductive harm. For more information visit: www.P65Warnings.ca.gov.

Skydio X10 VT300-Z, VT300-L, and V100-L sensor packages contain chemicals including nickel, which are known to the State of California to cause cancer and birth defects, or other reproductive harm. For more information visit: www.P65Warnings.ca.gov.

Skydio Dock for X10 contains chemicals including BPS and nickel, which are known to the State of California to cause cancer and birth defects, or other reproductive harm. For more information visit: www.P65Warnings.ca.gov.

FCC Compliance Statement

Any changes or modifications to this equipment not expressly approved by Skydio will void the user's authorization to operate this equipment.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. The distance between user and products should be no less than 20cm. The end user must follow the specific operating instruction for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

CANADA (ISED)

The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's website www.hc-sc.gc.ca/rpb

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions:

- This device may not cause interference.
- This device must accept any interference, including interference that may cause undesired operation of the device.

L'installateur de cet équipement radio doit s'assurer que l'antenne est située ou pointée de manière à ne pas émettre de champ RF au-delà des limites données par Santé Canada pour la population générale; consultez le Code de sécurité 6, disponible sur le site Web de Santé Canada www.hc-sc.gc.ca/rpb.

L'émetteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- L'appareil ne doit pas produire de brouillage;
- L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement

FAA Remote ID Compliance Statement

Skydio drones sold in the United States are Standard Remote ID-compliant. Unless specifically exempt, this product complies with 14 CFR Part 89 regulations on Remote Identification per RID-ASTM-F3586-22-NOA-23-01 (ASTM F3411-22a-RID-B and ASTM F3586-22 with corrections).

The Skydio X10 DOC is RID000000750-11.

The DOC list can be viewed here: <https://uasdoc.faa.gov/listDocs>

Japanese Electrical Appliance and Material Safety Act (DENAN) Compliance Statement

This product is an electrical appliance and material intended for specialized industrial or commercial use only. It is specifically designed and manufactured for integration into industrial machinery under controlled conditions by qualified personnel.

Due to this limited, specialized application, this product is excluded from the scope of "Electrical Appliances and Materials" intended for general household use and therefore does not require the mandatory PSE Mark (PSE電気用品安全法マーク).

This product is not intended for retail sale or use by general consumers. Unauthorized modification or use outside of the specified application is strictly prohibited and may void safety guarantees.

The attached power cord set is not intended for general use purposes and should only be used with this electrical product that it is packed with. The attached cord set should not be used with any other appliances or products.

Software License

The Skydio Software End-User License Agreement available at www.skydio.com/legal/eula governs the use of any Skydio software that is pre-installed, downloaded, installed, or otherwise provided in connection with any included hardware.

Additional Resources

The latest information about Skydio and our products can be viewed at www.skydio.com.

Skydio legal information and product terms and conditions can be viewed at www.skydio.com/legal.

Skydio products are protected by patents and trademarks, registered in the United States and other countries. Skydio intellectual property information can be viewed at www.skydio.com/legal/ip.

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Links

Skydio Support and Education

Skydio Support



<https://support.skydio.com/hc/en-us>

Skydio Release Notes



<https://support.skydio.com/hc/en-us/articles/4950043061659-Skydio-Release-Notes>

Skydio Academy



<https://academy.skydio.com/>

Skydio Paraverse



<https://www.skydio.com/get-paraverse>

Skydio Help Articles

Skydio X10 Attachments



<https://support.skydio.com/hc/en-us/sections/20056747014555-Skydio-X10-Attachments>

Installing/Uninstalling a Skydio Sensor Package



<https://www.youtube.com/watch?v=wxBePdckpXc>

How to Use Parachute (EAP)



<https://support.skydio.com/hc/en-us/articles/37934399534107-Getting-Started-with-Parachute-for-Skydio-X10-EAP>

How to Use Pathfinder (Beta)



<https://support.skydio.com/hc/en-us/articles/37945474734875-Getting-started-with-Skydio-Pathfinder-Beta>

How to Configure SSO in Skydio Cloud



<https://support.skydio.com/hc/en-us/articles/33456277678235-How-to-configure-SSO-in-Skydio-Cloud>

Skydio Integrations Help Articles



<https://support.skydio.com/hc/en-us/sections/4416695637915-Integrations>

Skydio Integrations Catalog



<https://www.skydio.com/integrations-catalog>

Skydio Developer Tools



<https://www.skydio.com/developer-tools>

Skydio Cloud API Documentation



<https://support.skydio.com/hc/en-us/articles/28019662874523-Understanding-Map-Capture-settings-with-Skydio-X10>

Understanding Map Capture Settings



<https://apidocs.skydio.com/reference/introduction>

Skydio X10 Bring Your Own Cellular Plan



<https://support.skydio.com/hc/en-us/articles/39423880779035-Skydio-X10-Bring-Your-Own-Cellular-Plan>

Skydio X10 (Gen 2)



<https://support.skydio.com/hc/en-us/articles/39423158528795-Skydio-X10-Gen-2>

Skydio Safety

Skydio Safety and Operating Guide



<https://support.skydio.com/hc/en-us/articles/360000586653-Skydio-Safety-and-Operating-Guide>

Notice to Operators



<https://support.skydio.com/hc/en-us/sections/20862493496347-Notice-to-Operators>

Skydio Regulatory

Skydio Regulatory Information



<https://support.skydio.com/hc/en-us/sections/7424204408987-Skydio-Regulatory-Information>

Skydio Regulatory Services



<https://www.skydio.com/services/regulatory-services>

How to Obtain a Public Safety Part 91 BVLOS Waiver



<https://www.skydio.com/resources/guides/part91-bvlos-waiver-process>

Federal Aviation Administration Resources

FAA Drone Zone Registration



<https://faadronezone-access.faa.gov/#/>

FAA Unmanned Aerial Systems in Public Safety



https://www.faa.gov/uas/public_safety.gov

Code of Federal Regulations (Part 107)



<https://www.ecfr.gov/current/title-14/chapter-I/subchapter-F/part-107>

FAA Temporary Flight Restrictions (TFRs)



<https://tfr.faa.gov/tfr3/?page=list>

FAA Notice to Airmen (NOTAM) Search



<https://notams.aim.faa.gov/notamSearch/nsapp.html#/>

FAA Submitting an Accident Report (Flight Standards District Offices)



https://www.faa.gov/about/office_org/field_offices/fsdo

FAA Aviation Weather Sources

Aviation Weather Center (AWC)



<https://aviationweather.gov/>

National Weather Service



https://www.weather.gov/hnx/aviationweb_fcst

1800wxbrief.com



<https://www.1800wxbrief.com/Website/#!/>

FAA Section 1. Meteorology



https://www.faa.gov/air_traffic/publications/atpubs/aim_html/chap7_section_1.html