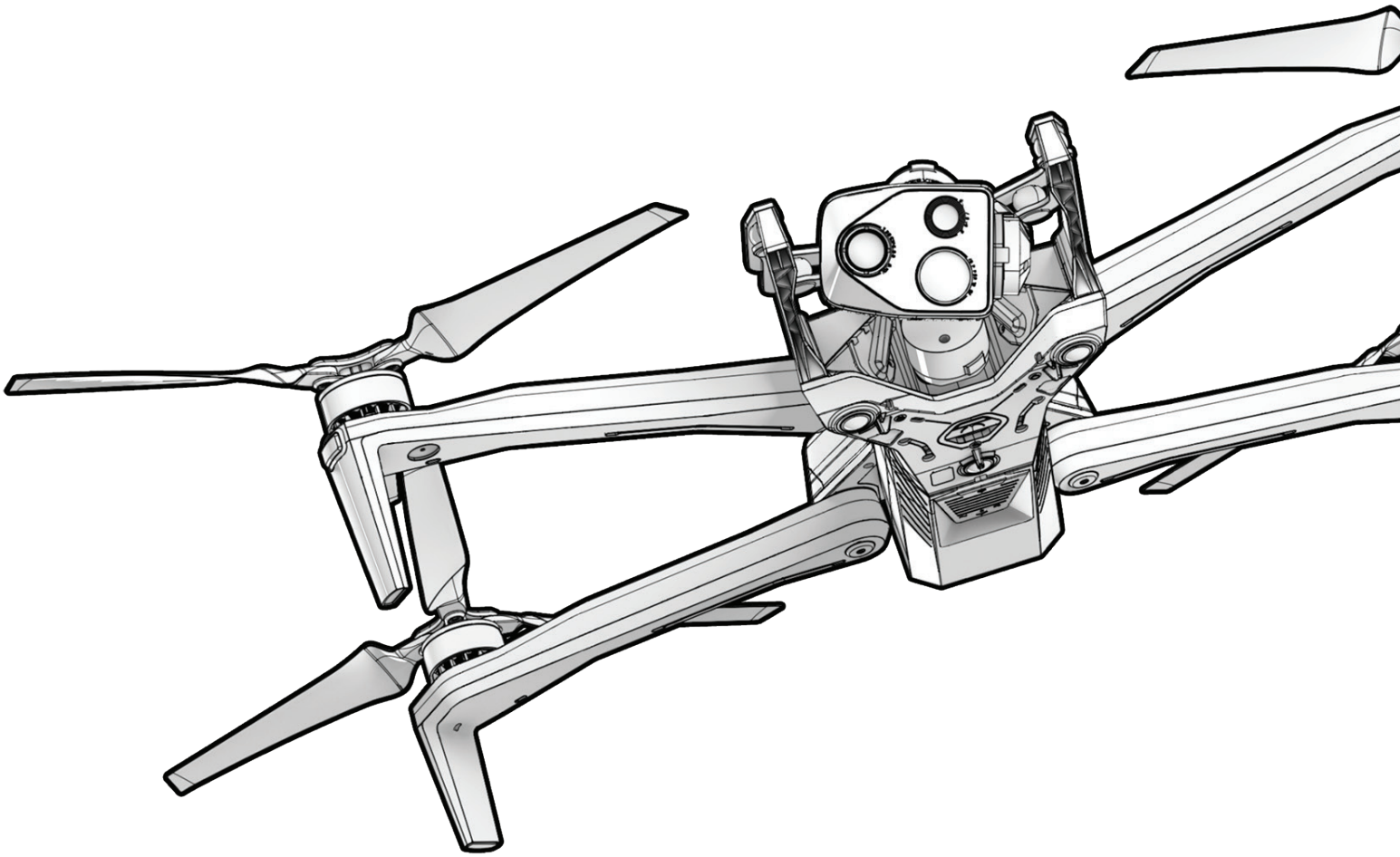
Skydio

Skydio X10

Maintenance Manual



Updated: **March 2026**

WARNING: *Please read all documentation provided with your Skydio X10, including but not limited to the X10 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.*

NOTE: *Skydio is not responsible for any loss, retention, or recovery of data resulting from the execution or non-execution of this Secure Data Erasure & Factory Reset procedure. The operator is solely responsible for ensuring that all required backups are completed and that each step of the checklist is properly performed and verified. Failure to follow the full procedure may result in residual data remaining on the aircraft, controller, or removable media. For more information, visit: skydio.com/manuals*

Revision History

Revision	Software Version and Description	Date
1	Initial release of the Skydio X10 Maintenance Manual, consolidating maintenance guidance previously distributed across the Operator Manual and Support documentation.	March 2026

Scope

This manual is designed to provide users with maintenance procedures and schedules to ensure optimal flight behavior. A lifecycle table to record and track flight hours is included. Read the Operator Manual for detailed information about flying your Skydio X10.

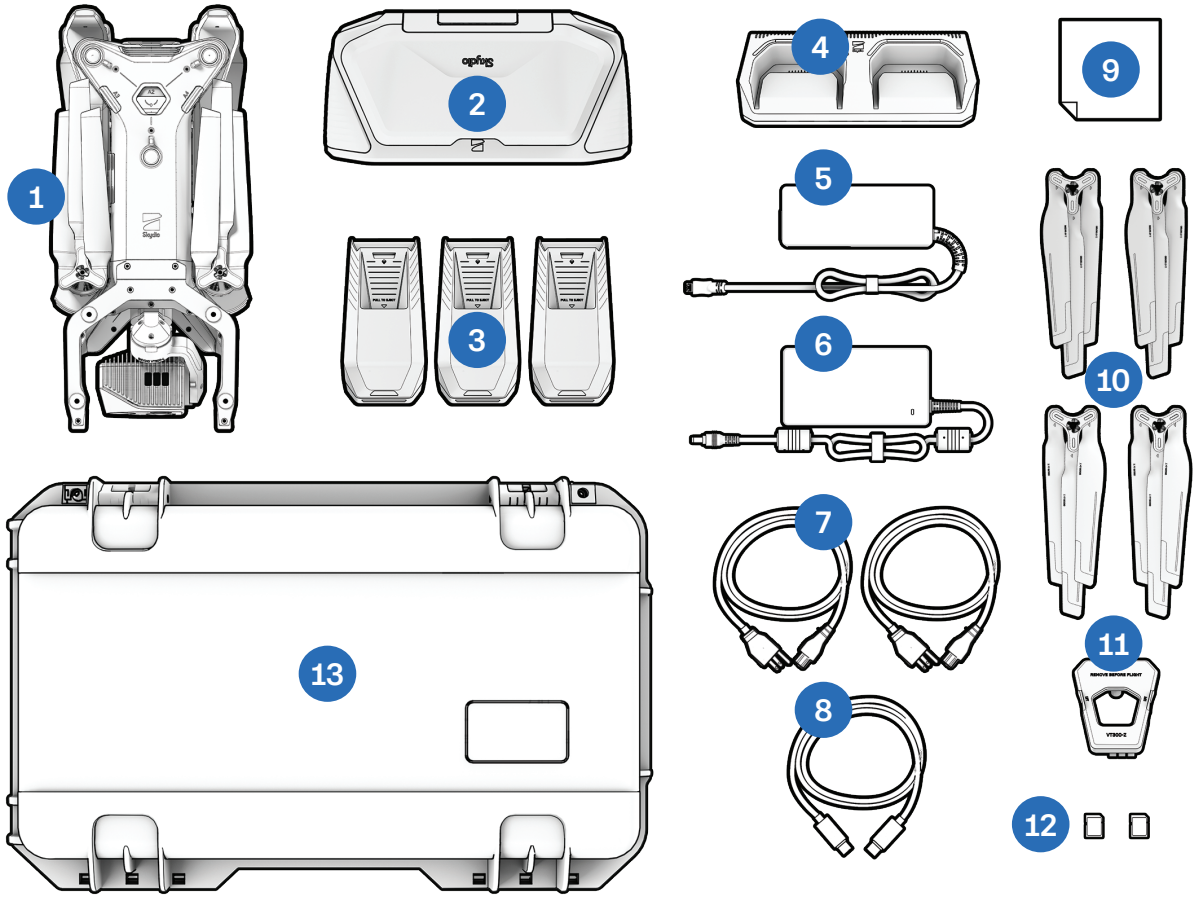
Sections divide the manual into major categories of information:

- **Equipment**
- **Fleet Management**
- **Maintenance**
- **Inspection**
- **Schedule**
- **Legal**

Flight System Overview

This section covers

Skydio X10 Starter Kit

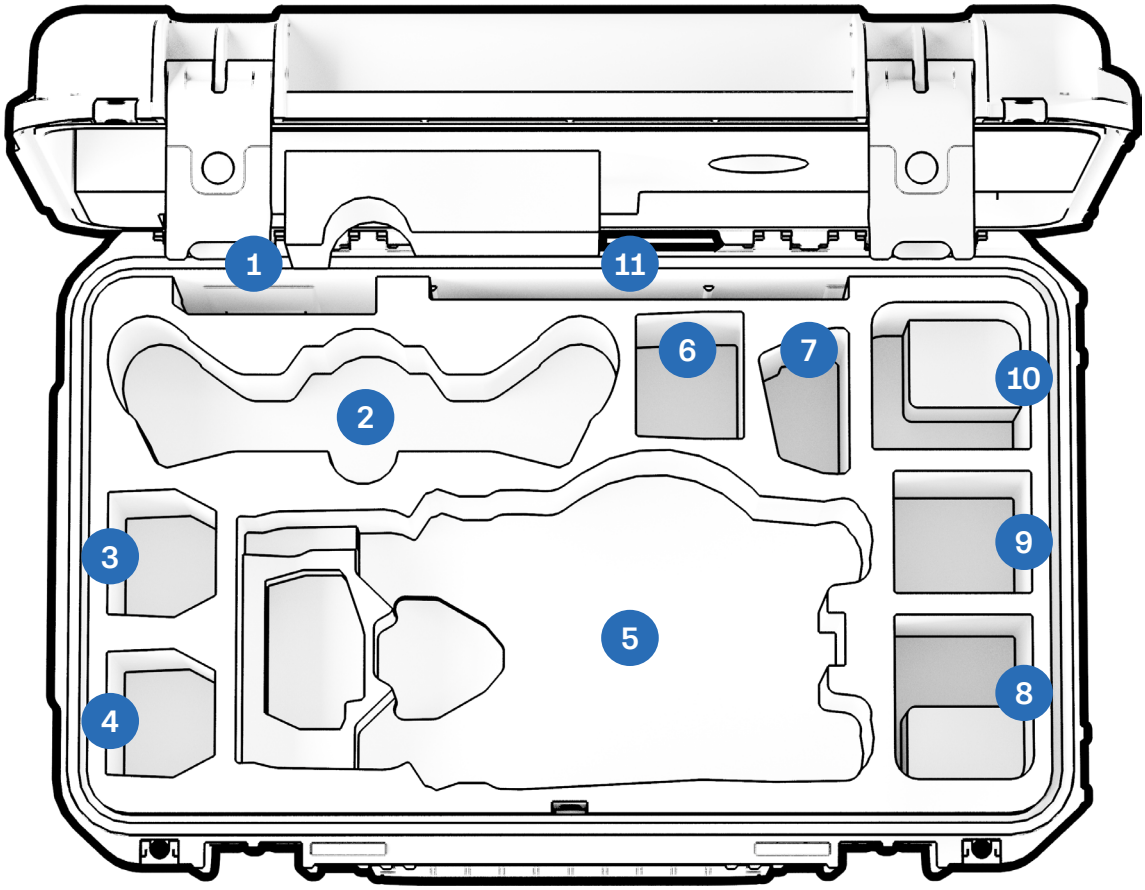


1. Skydio X10 and sensor package
2. Skydio X10 Controller with chosen Skydio Connect option
3. Batteries (3)
4. Skydio X10 Dual Charger
5. 100 W power supply (USB-C)
6. 230 W fast power supply (barrel jack)
7. Power cables (2)
8. USB-C to USB-C pairing cable
9. Microfiber cleaning cloth
10. Spare propeller sets (4)
11. Gimbal Stabilizer Clip
12. 256 GB microSD cards, pre-installed (2)
13. Starter Case (hard shell)

Also included in some international shipments: USB-C to A adapter cable, neck strap, LTE USB adapter, Ethernet adapter

Scan for more information about the kits available for purchase.

Skydio X10 Starter Case Layout

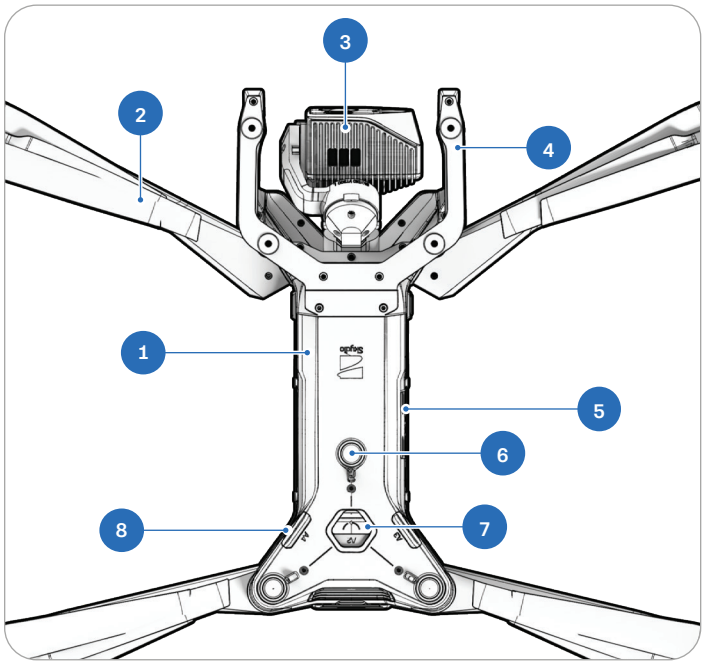


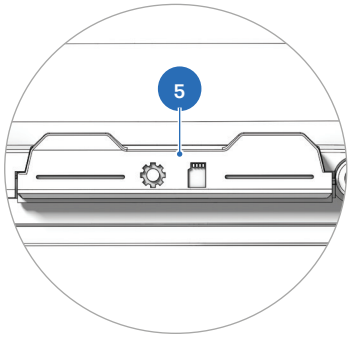
1. Propellers
2. X10 Controller
3. X10 Battery
4. X10 Battery
5. Skydio X10 Drone
6. Flex space: 100W Power Supply or X10 Battery
7. X10 Dual Charger
8. Flex space: 100W Power Supply or Attachment (battery not recommended)
9. Flex space: 100W Power Supply or Attachment (battery not recommended)
10. Flex Space: 230W Power Supply or Attachment
11. Quick Start Guide and other documents

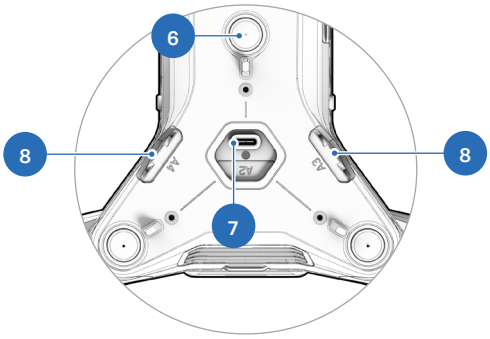
NOTE: *If you purchased a Starter Case prior to March 2026 and later upgrade to the VT300-Z REV2 sensor package, the REV2 will not fit in your existing case. Skydio X10 Starter Cases purchased after March 2026 are compatible with the VT300-Z REV2.*

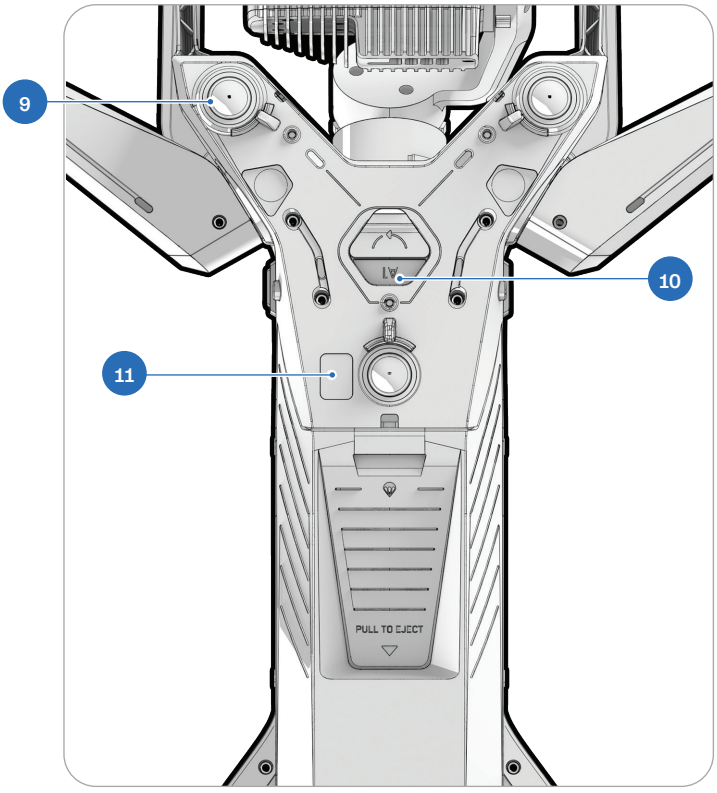
Skydio X10 Hardware

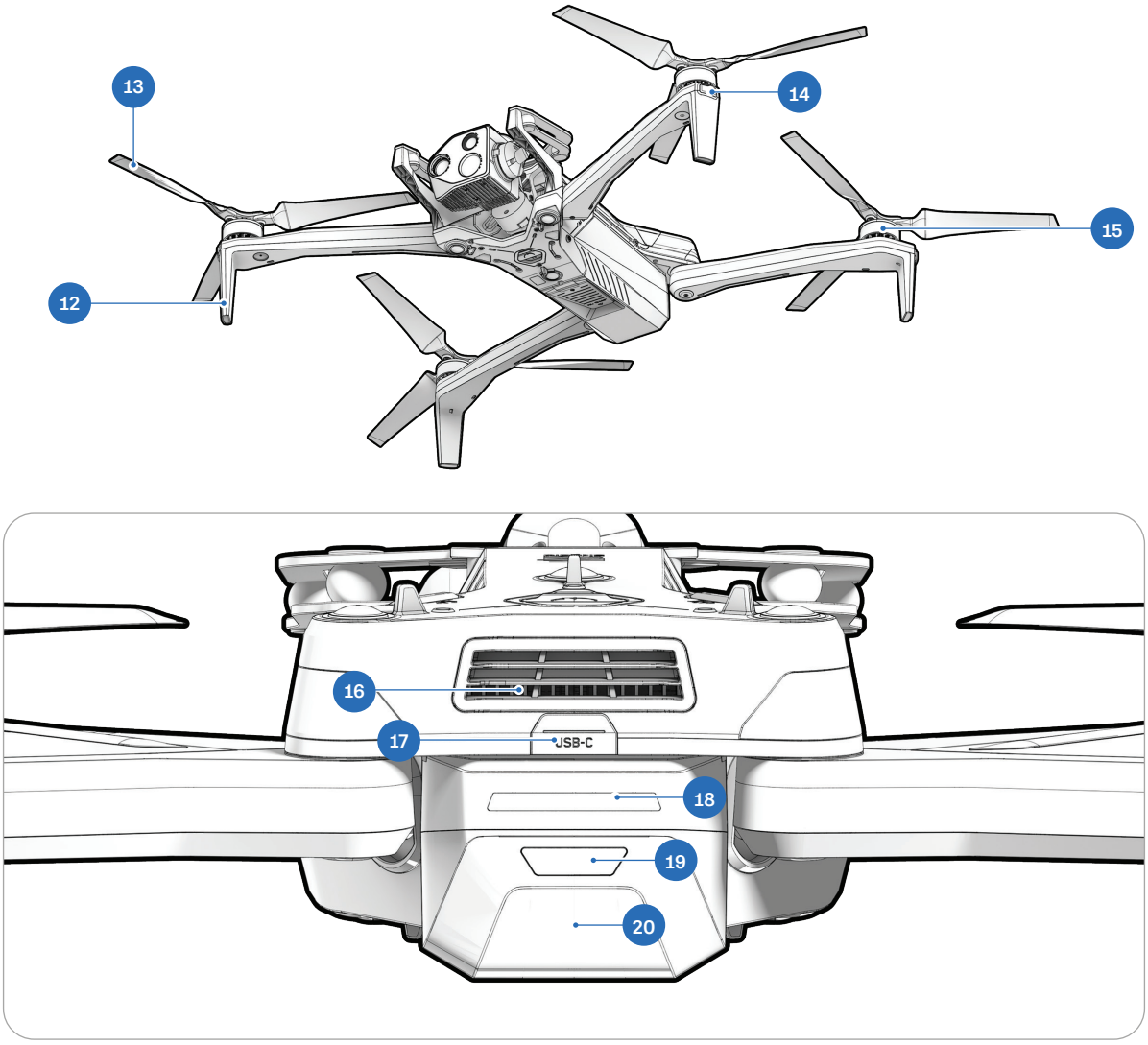
1. Chassis
2. Arm (4)
3. Sensor package
4. Sensor package frame
5. Log and Media card slots (2)
6. Top navigation cameras (3)
7. Top attachment bay (A2)
8. Side attachment bay (A3, A4)
9. Bottom navigation cameras (3)
10. Bottom attachment bay (A1)
11. Time of flight sensor









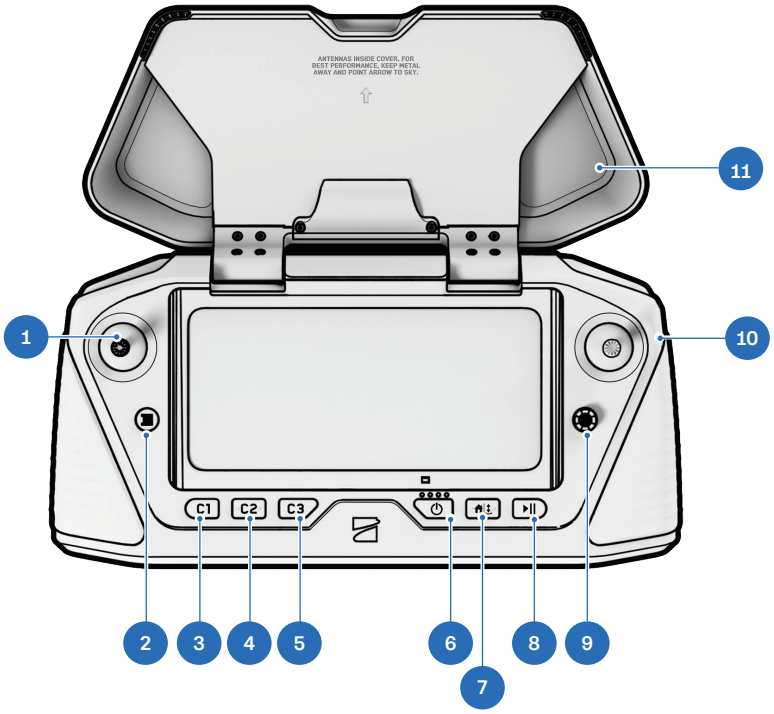


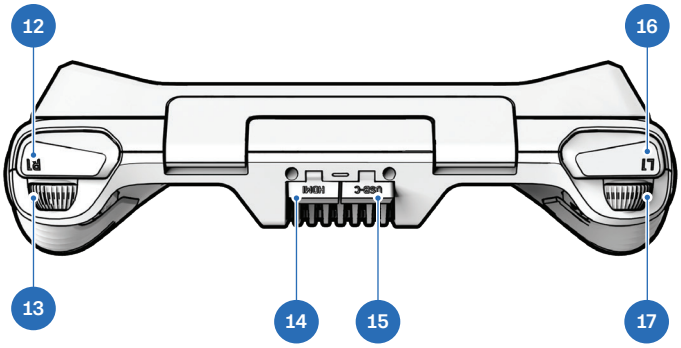
12. Landing feet/antennas
13. Propeller blades
14. RGB/strobe lights
15. Propeller motors
16. Cooling fan/outlet
17. USB-C charge port
18. Battery lights
19. Power button
20. Battery

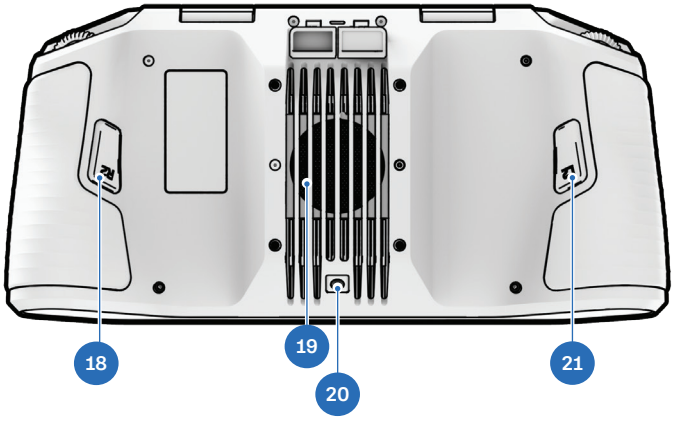
Scan for more information about the sensor packages available for purchase.

Skydio X10 Controller Hardware

1. Left joystick
2. Menu/Back button
3. C1 button[1]
4. C2 button[1]
5. C3 button[1]
6. Power button
7. Launch/Return/Land button
8. Pause button
9. Directional pad (D-pad)
10. Right joystick
11. Controller cover/antennas
12. R1 button (Shutter)
13. Right wheel
14. HDMI port
15. USB-C charge port
16. L1 button (Boost)
17. Left wheel[1]
18. R2 button[1]
19. Cooling fan
20. Neck strap[2] and tripod mount
21. L2 button[1]







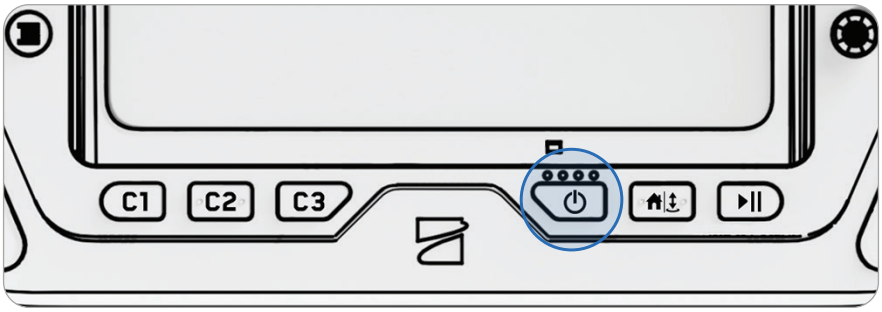
[1]*Customizable*
[2]*Neck strap sold separately*

Updating the Skydio X10 Controller

NOTE: *Check for available updates before flying. You must update the Skydio X10 Controller first before updating Skydio X10.*

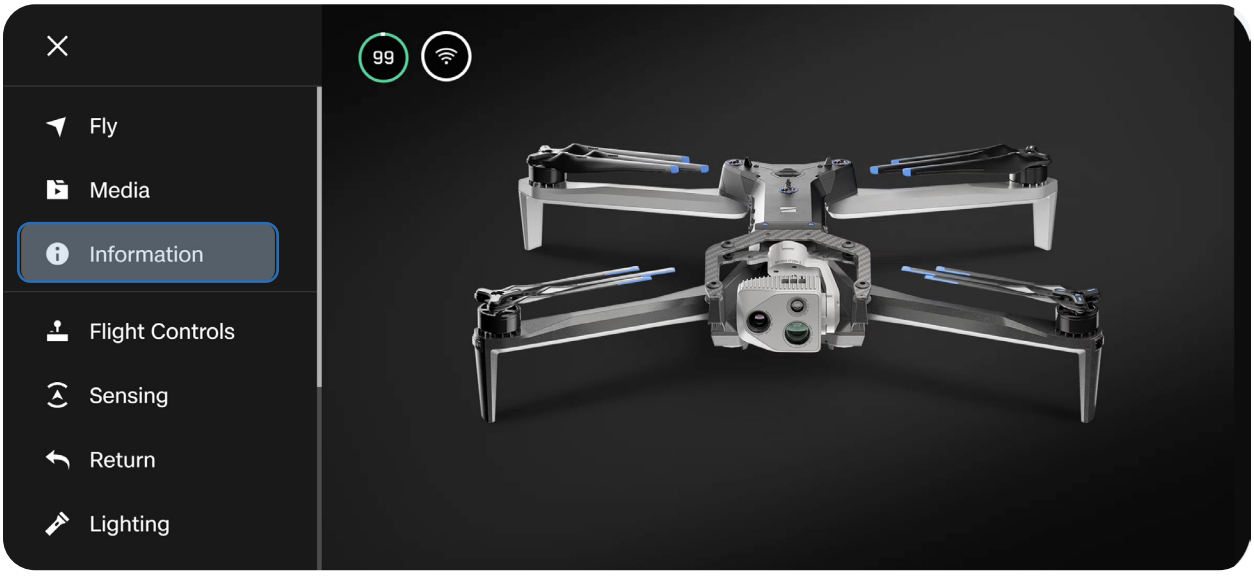
Step 1 - Power on the Skydio X10 Controller

Open the controller lid and hold the Power button for five seconds. The lights on the front of the controller will turn on and indicate the level of charge.

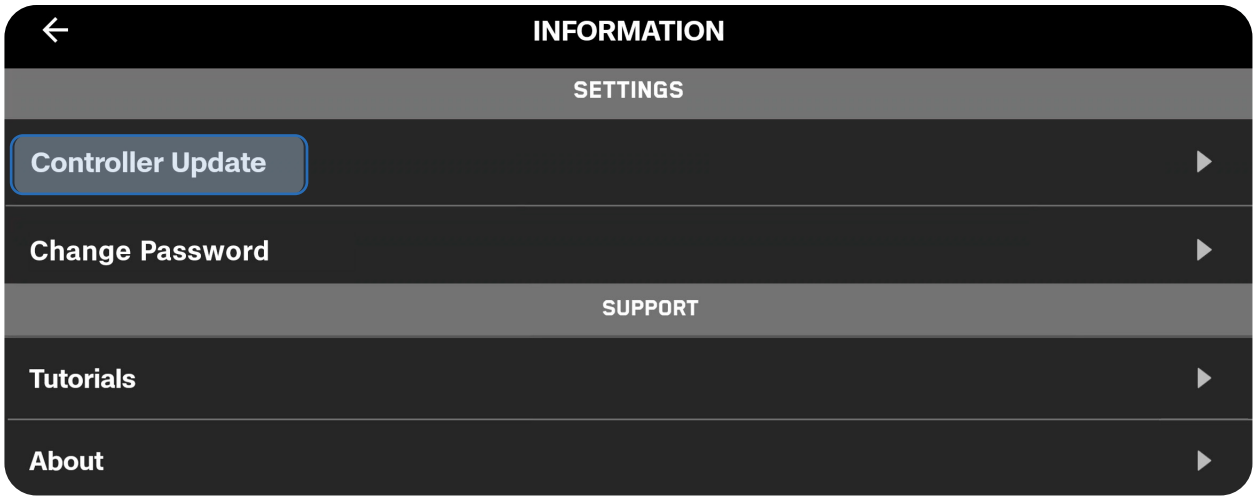


Step 2 - Navigate to the Information menu

Located within Global Settings.



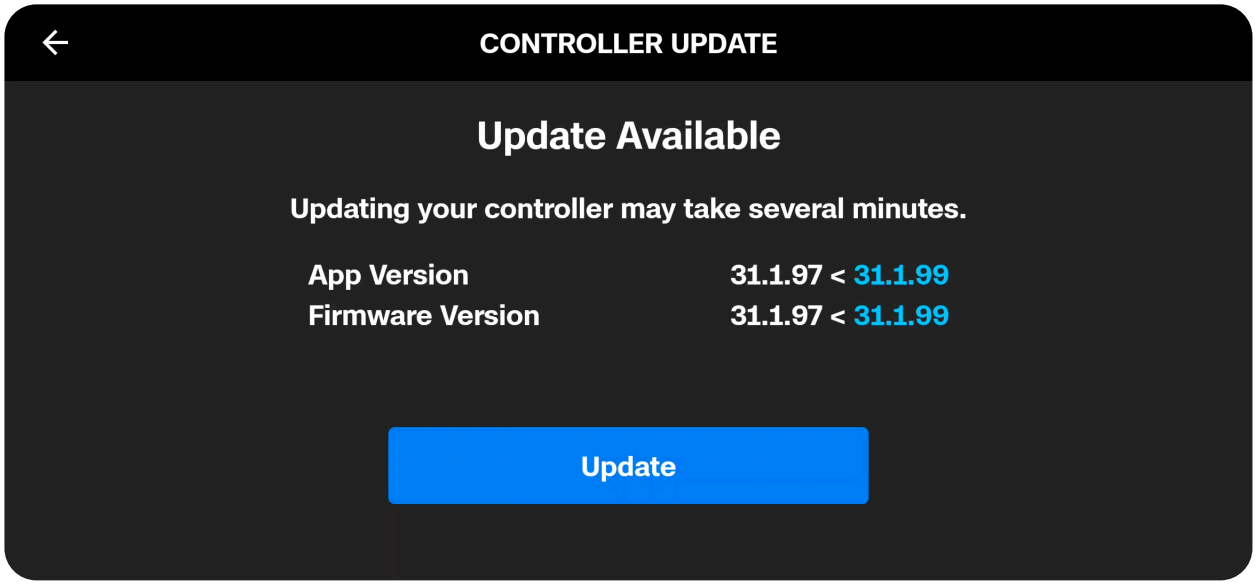
Step 3 - Select Controller Update under Settings



Step 4 - Select Check for Update

Step 5 - Select Update

Follow the on-screen prompts to update your controller.

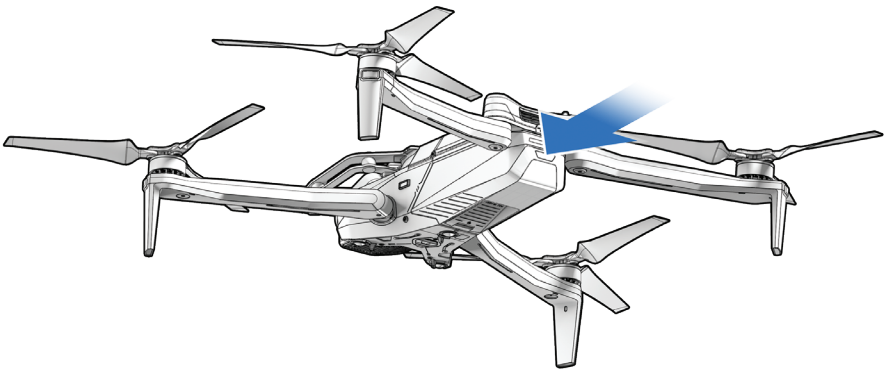


Updating Skydio X10

Skydio will not force an update for your system, however, for optimal performance, we recommend that you keep your Skydio system up-to-date. If an update is available, you will see a red notification icon in the **Information** menu.

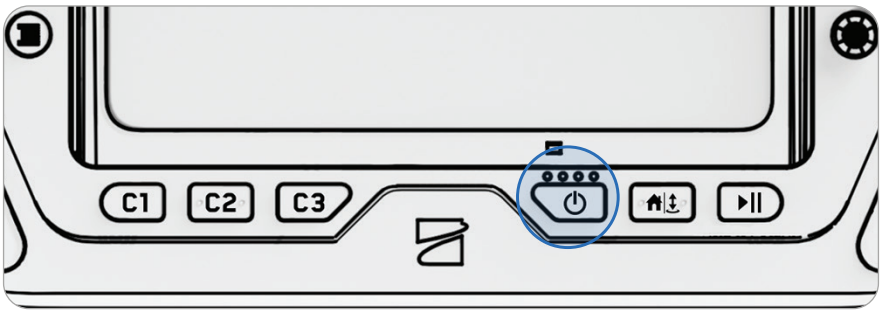
Step 1 - Power on Skydio X10

Press and hold the Power button on the battery for three seconds.



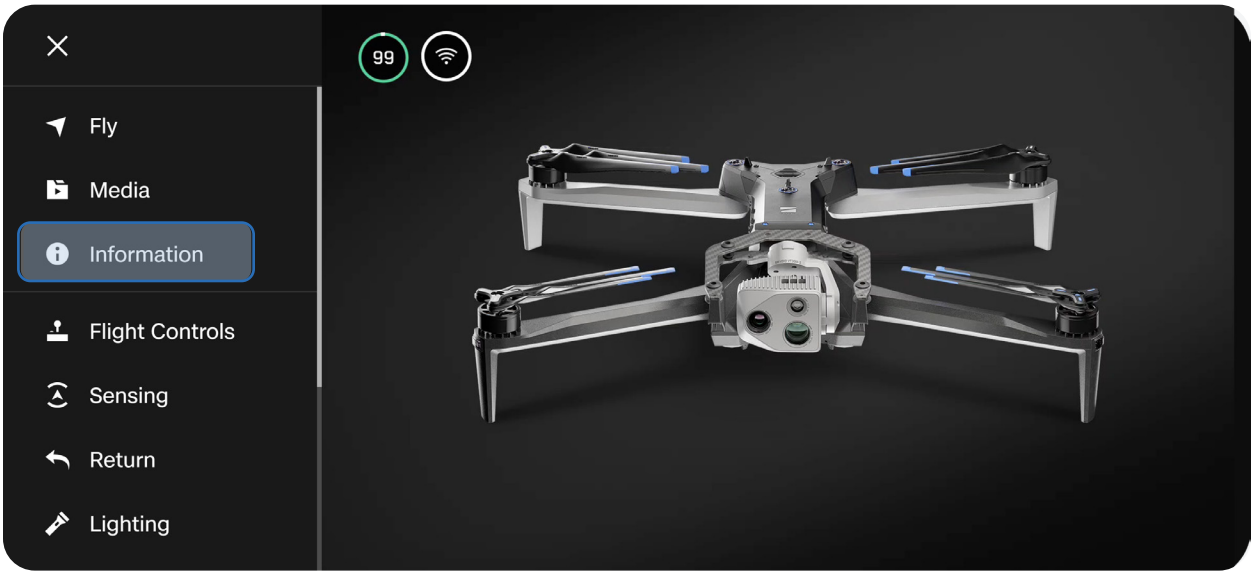
Step 2 - Power on the Skydio X10 Controller

Open the controller lid and hold the Power button for five seconds. The lights on the front of the controller will turn on and indicate the level of charge.

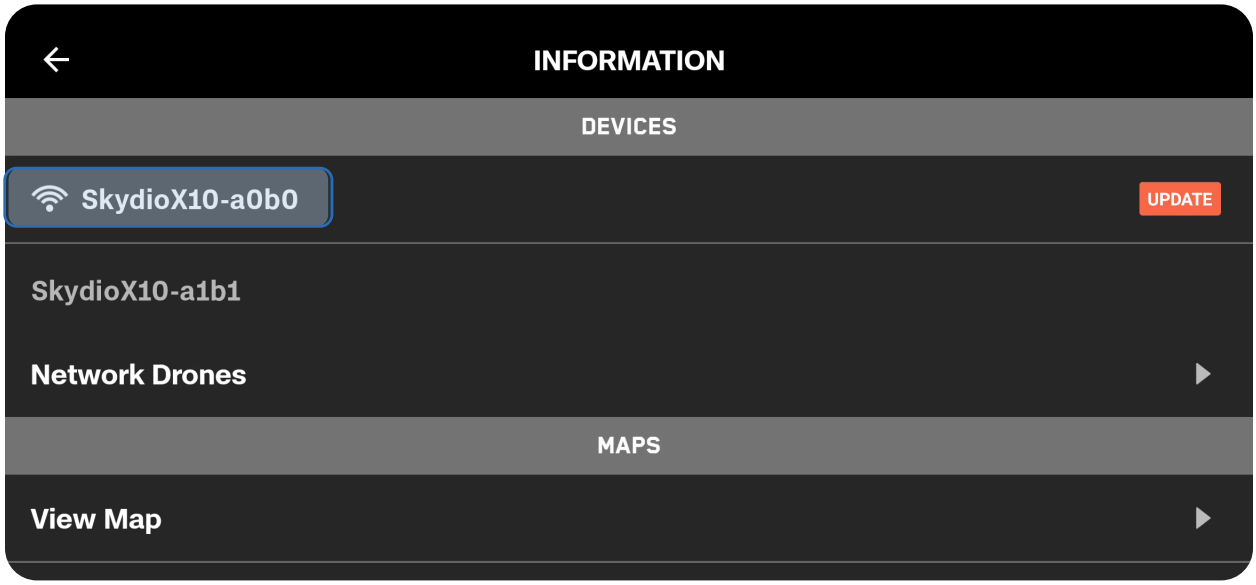


Step 3 - Navigate to the Information menu

Located within Global Settings.



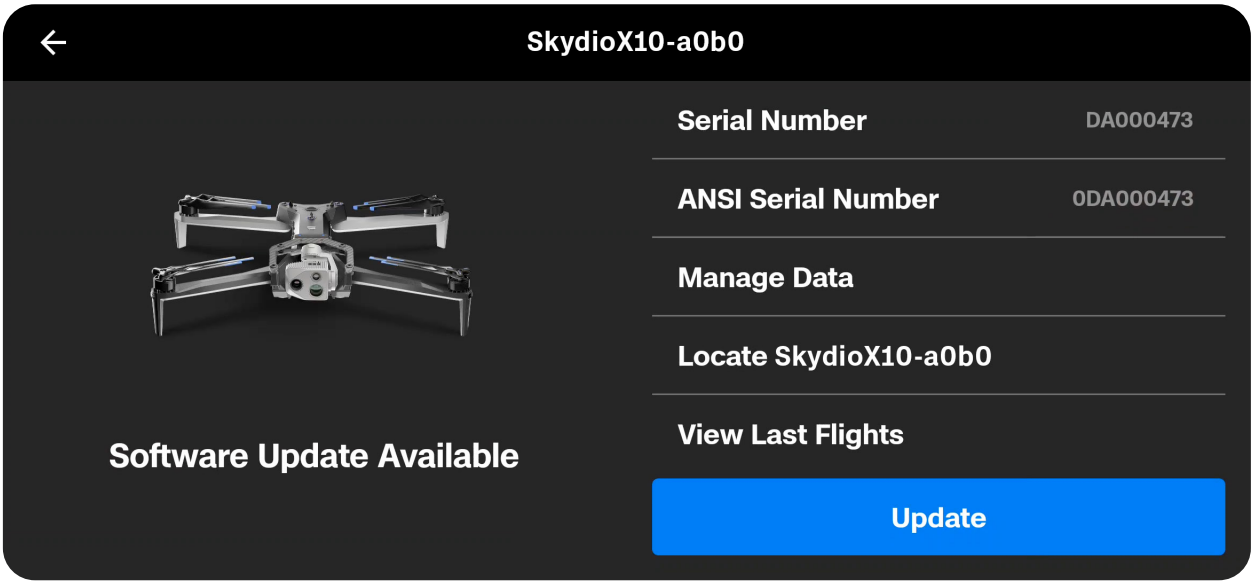
Step 4 - Select your Skydio X10 under Devices



Step 5 - Select Update

Follow the on-screen prompts to update your drone.

Select **Check for Updates** anytime to look for available updates.



Specifications

X10 Drone

Applicable Model Numbers	SR47PI, SR47PV, SR47PCI, SR47PCV SR47PC9V
Dimensions (unfolded, with propellers)	31.1” x 25.6” x 5.7”
Dimensions (folded, without battery)	13.8” x 6.5” x 4.7”
Weight (incl. batteries)	Connect SL: 2.11 kg / 4.65 lbs Connect SL + 5G1: 2.14 kg / 4.72 lbs
Max Launch Weight	2.49 kg / 5.49 lbs
Operation Frequency	Connect SL: 2400-2483.5MHz, 5150-5850Mhz
Transmitter Power (EIRP)	Connect SL: 34.3dBmi (2.4GHZ) Connect SL: 33.7dBmi (5GHZ)
Hovering Accuracy (windless or breezy)	VIO: +/- 10cm
Max Angular Velocity	GNSS: +/- 1m
Max Tilt Angle	Yaw: 100 deg/s Roll / Pitch: 225 deg/s 40 degrees
Max Ascent/Descent Speed	Ascent: 6 m/s / 13.4mph Descent: 4 m/s / 9.0mph
Max Non-Vertical Descent Speed	6 m/s / 13.4mph
Max Horizontal Speed (at sea level)	20 m/s / 45mph
Max Horizontal Speed with Obstacle Avoidance	16 m/s / 36mph
Max Service Ceiling Above Sea Level (without other payload)	15,000 ft density altitude
Max Gust Handling	Under 12.8 m/s / 28 mph
Max Hover Time	35 minutes
Max Flight Time[1]	40 minutes

Flight System Overview

Processors	NVIDIA Jetson Orin SoC Qualcomm QRB5165 SoC
Ingress Protection Rating	IP55
GNSS	GPS + Galileo + GLONASS + BeiDou
Operational Temperature Range	-20C to +45C / -4F to 113F
Wireless Range (no interference, line of sight operation)	Connect SL: 12km / 7.5 miles
Wireless Networking (media offload)	Connect SL: WiFi6
Obstacle Avoidance Coverage	True 360°

[1] In optimal, controlled conditions; completely depleting a fully charged battery

X10 Controller

Controller Dimensions	10” x 5” x 3”
Dimensions	10.5” x 5” x 3”
Screen	6.6” Dynamic AMOLED touchscreen 120Hz Adaptive Refresh Rate Resolution: 2340 x 1080 pixels Brightness: 1750 nits (outdoor peak) 392ppi
Weight	1135 grams
Max Range	Connect SL: 12km / 7.5 miles
Operating Frequencies	Connect SL: 2400-2483.5MHz, 5150-5850MHz
Transmitter Power (EIRP)	Connect SL: 34.7dBmi (2.4GHz) Connect SL: 35.9dBmi (5GHz)
Ingress Protection Rating	IP54
Operating Time	Approx. 5 hours
Battery	9600mAH
GNSS	GPS + Galileo + GLONASS + BeiDou
Operational Temperature Range	-20C to +45C / -4F to 113F
Wired Outputs	HDMI & USB-C
Wireless Networking	WiFi, Cellular LTE/5G 1
Security	NDAA compliant AES-256 encrypted data link Encrypted internal disk storage Password protected Root of trust Trusted boot Secure update

VT300-Z Sensor Package

Angular Vibration Range
User Controllable Range
Mechanical Range

VT300-L and V100-L Sensor Package

Angular Vibration Range
User Controllable Range
Mechanical Range
Flashlight Illumination

Telephoto Camera (VT300-Z only)

Sensor	1/2” 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

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

Thermal Camera (VT300-Z and VT300-L)

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
Temperature Measurement Method	Spot Meter, Region of Interest
Temperature Measurement Range	-40° to 150° C (-40° to 350° C low gain)
Palette	White hot Black hot Ironbow Rainbow

Vision Systems / Navigation Cameras

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

Flight Battery

Capacity	8419 mAh
Voltage	18.55 V
Battery Type	Rechargeable Lithium Ion Polymer
Energy	156.17 Wh
Net Weight	1.56 lbs +/- 0.003 lbs
Operational Temperature Range	-20C to 60C
Storage Temperature Range	-20C to +45C (storage less than 3 months)
Charging Temperature Range	5C to 45C
Chemical System	Lithium Ion Polymer

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
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

X10 Dual Charger and Power Supplies

Dimensions	180 x 75 x 48mm
Weight (w/o Battery)	0.73 lbs
Charge Time 230W	1 hour (0-100%)
Charge Time 100W	1 hour 45 minutes (0-100%)
Weatherproofing	No ingress protection
Power input (100W USB-C)	5VDC, 3A / 20VDC, 5A (USB PD)
Power input (230W DC Barrel)	20VDC, 11.5A

Fleet Management

This section covers

Data Storage

Passwords

Data Storage

There are two 256 GB UHS Speed Class 3 (or faster) microSD cards one for storing media and one for recording flight logs. Each card will occasionally need to be cleared of data and reformatted. Reformatting the cards will delete the stored data, ensure that any data is safely transferred.

Step 1 - Select the Global Settings menu, Information, and drone name under Devices

Step 2 - Select Manage Data and either

- Format Media Card or
- Format Logs Card

Step 3 - Select Delete when the warning message displays

- Select **OK** in the confirmation message

The **Media menu** displays a gallery of images and videos and allows you to manage captured images and videos. Media is encrypted or unencrypted depending on your settings.

To access the media viewer:

Step 1 - Select the Global Settings icon and the Media menu

- Individual thumbnails can be selected to view in full screen
- Select single or multiple to export
- Select the trashcan to delete

Passwords

CAUTION: *To maintain operational security and prevent conflicts with controller functionality, never sign in to personal or third-party accounts (such as Google Drive, Gmail, OneDrive, or other cloud services) on the X10 Controller. If you need to import maps or export logs, use the supported workflows provided by Skydio.*

CAUTION: *The password cannot be recovered or reset. Ensure that your password is entered correctly and is written down and stored in a safe location. If the password is lost, the controller will need to be replaced.*

If you have set a password for your X10 system. It is recommended that you occasionally update your password per your organizations guidelines for length and complexity. To change your original password:

Step 1 - Select the Global Settings menu and Information

Step 2 - Select change password

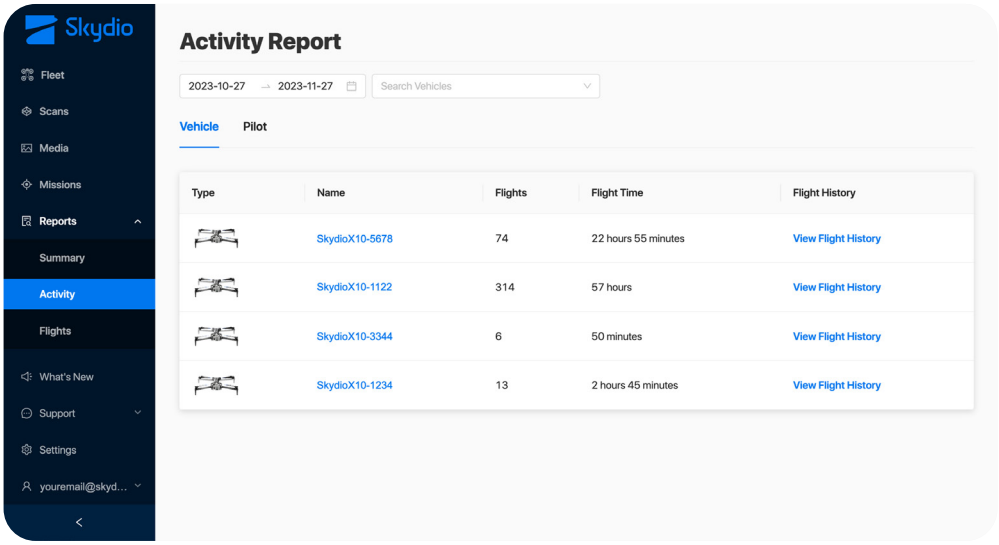
Monitoring Drones and Batteries in Skydio Cloud

If you've claimed your Skydio X10 drones and batteries in Skydio Cloud, you can track the total number of flights and flight hours for each device.

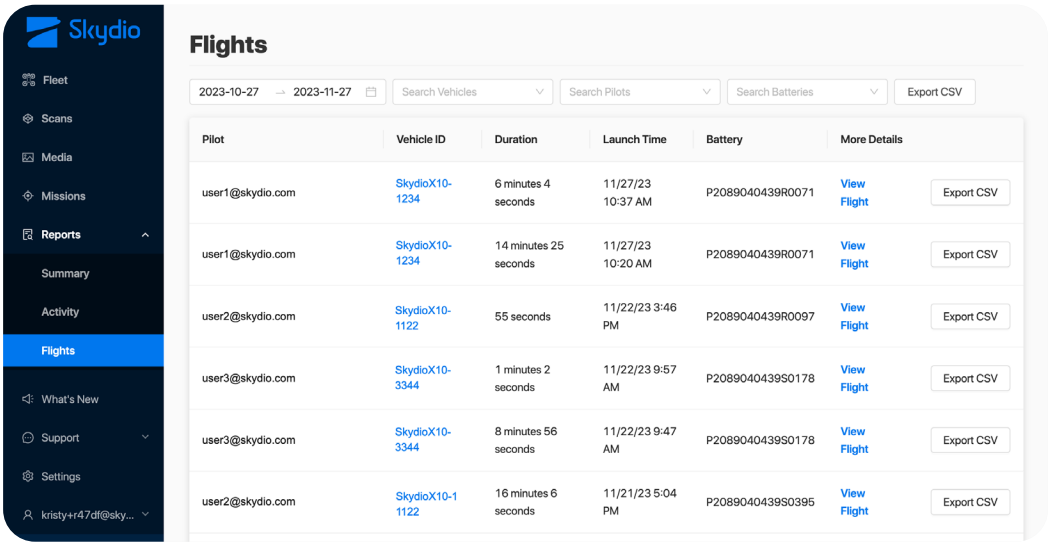
> ***NOTE:*** *Skydio X10 drones and batteries must be claimed in Skydio Cloud to view this flight data. Visit the Skydio Cloud Setup section of this manual for instructions on how to claim your devices.*

Skydio X10

Navigate to Reports > Activity. Here you can view the total number of flights and total flight time for each drone in your fleet.

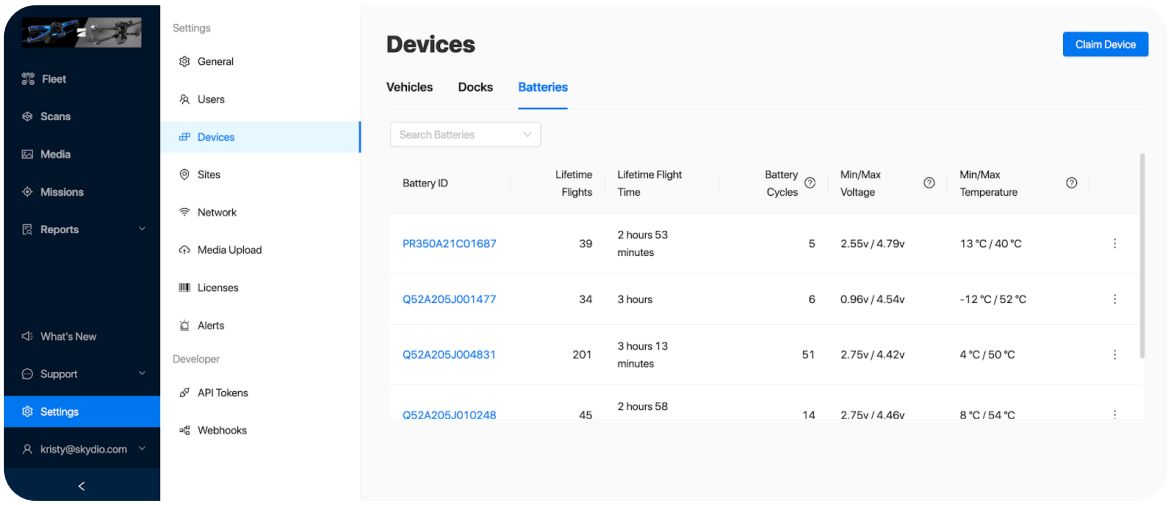


Under the Flights tab you can also view a list of all flights, their duration, launch time, and more.



Skydio X10 Batteries

Navigate to Settings > Devices > Batteries. Here you can view the total number of flights, total flight time, and cycles for each battery in your fleet.



Sending Skydio Support Logs

WARNING: *Powering off the drone immediately after a landing or a crash will result in missing data in the flight logs. Always allow your drone to complete postflight operations before powering off. Removing, swapping, or altering file names on the media card will impact the availability of the flight logs.*

CAUTION: *To maintain operational security and prevent conflicts with controller functionality, never sign in to personal or third-party accounts (such as Google Drive, Gmail, OneDrive, or other cloud services) on the X10 Controller. If you need to import maps or export logs, use the supported workflows provided by Skydio.*

Uploading your flight logs allows our support team to troubleshoot any issues or questions you may have.

Do not reformat or factory reset your Skydio drone prior to contacting our support team. Skydio will never review your videos or data without your permission.

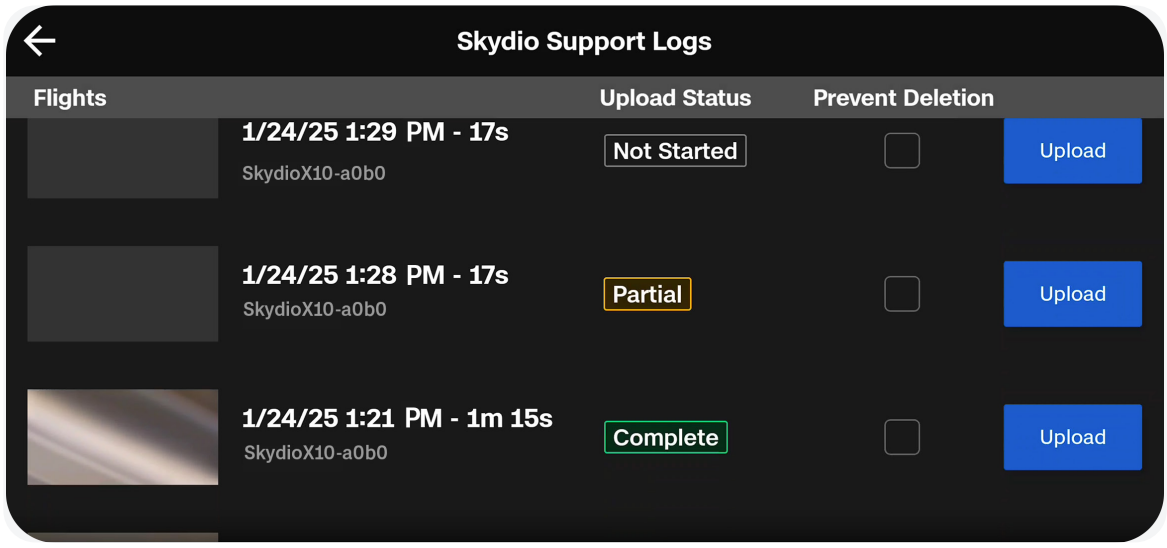
When uploading to Skydio Support, monitor the upload progress of an individual flight directly from the Skydio Support Logs menu:

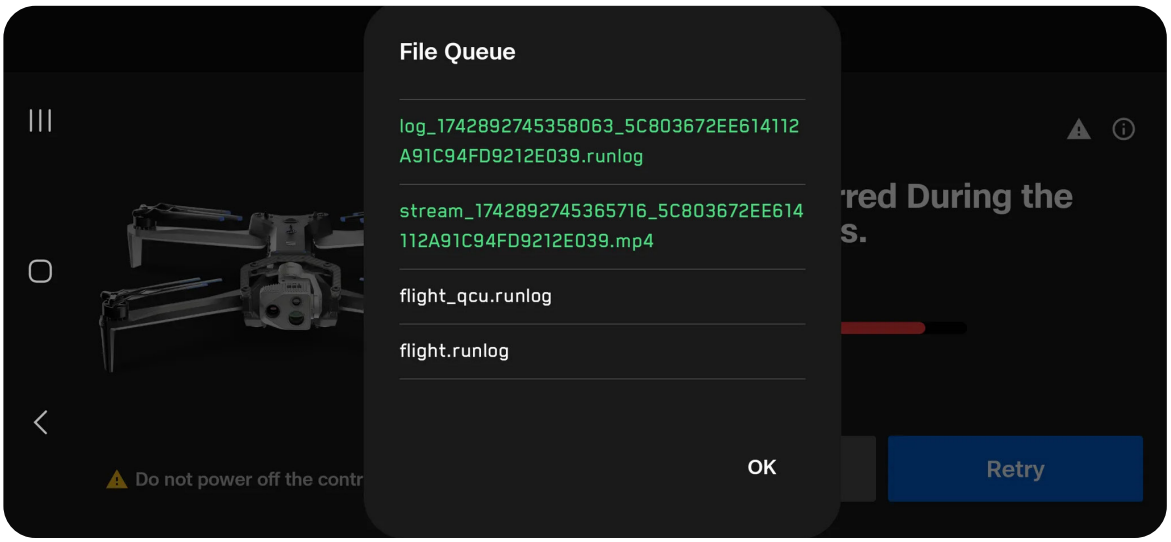
Individual Flight Log Status

- **Not Started** – Log has not been uploaded
- **Partial** – Some data was uploaded, but the log is incomplete; when you retry, only the missing data will upload
- **Complete** – The log has been fully uploaded

Individual File Status

- **Green** – Upload successful
- **White** – Upload failed; select the error icon (triangle) in the top right to view the files





Uploading Support Logs

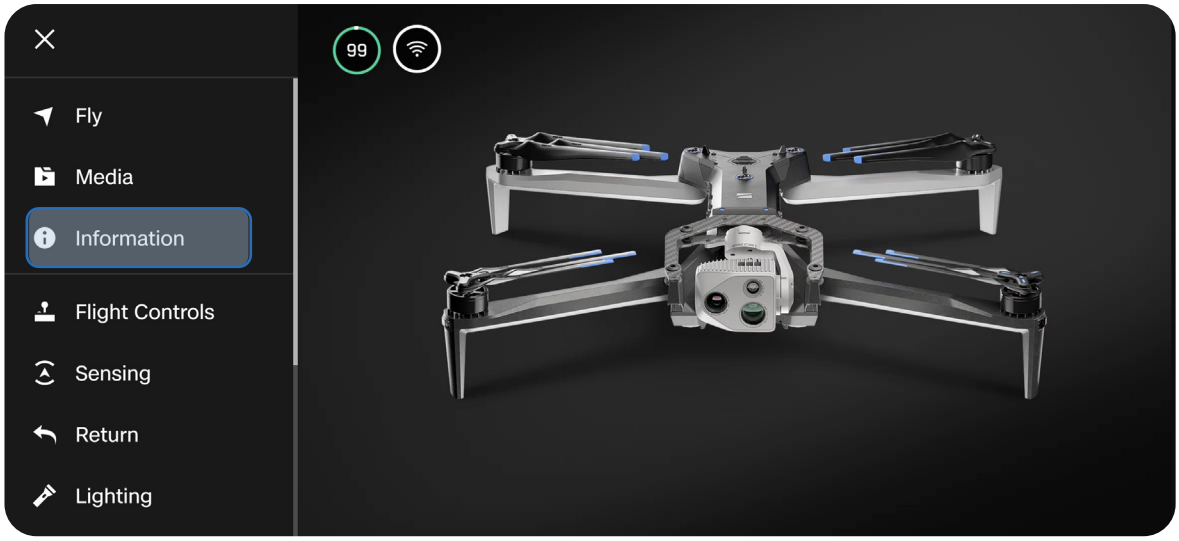
NOTE: *The transport of large support logs are not supported over 5G cellular.*

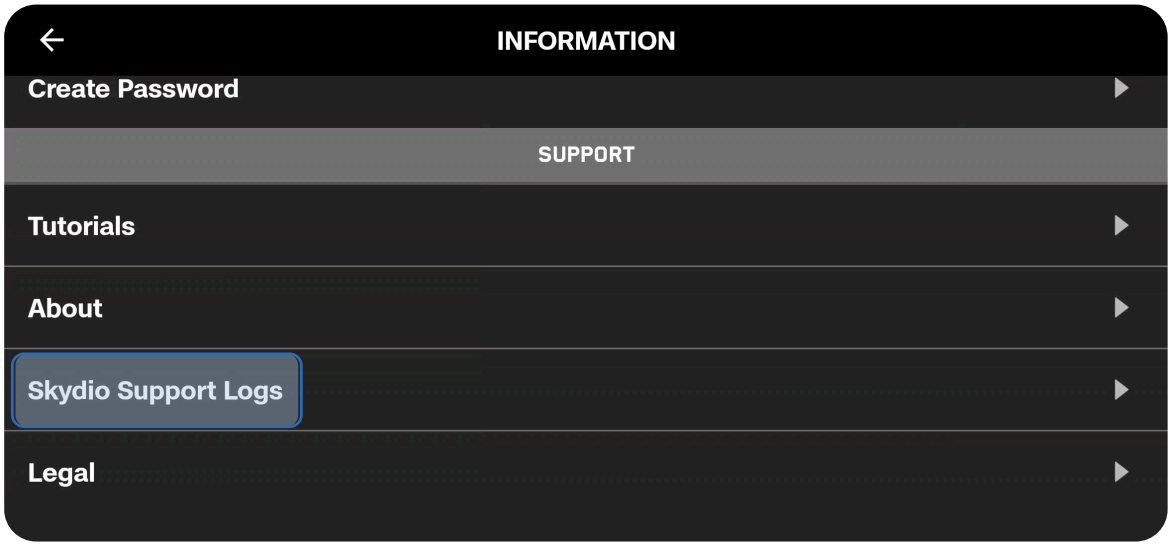
Step 1 - Power on Skydio X10 and the X10 Controller

Ensure your X10 Controller is fully charged.

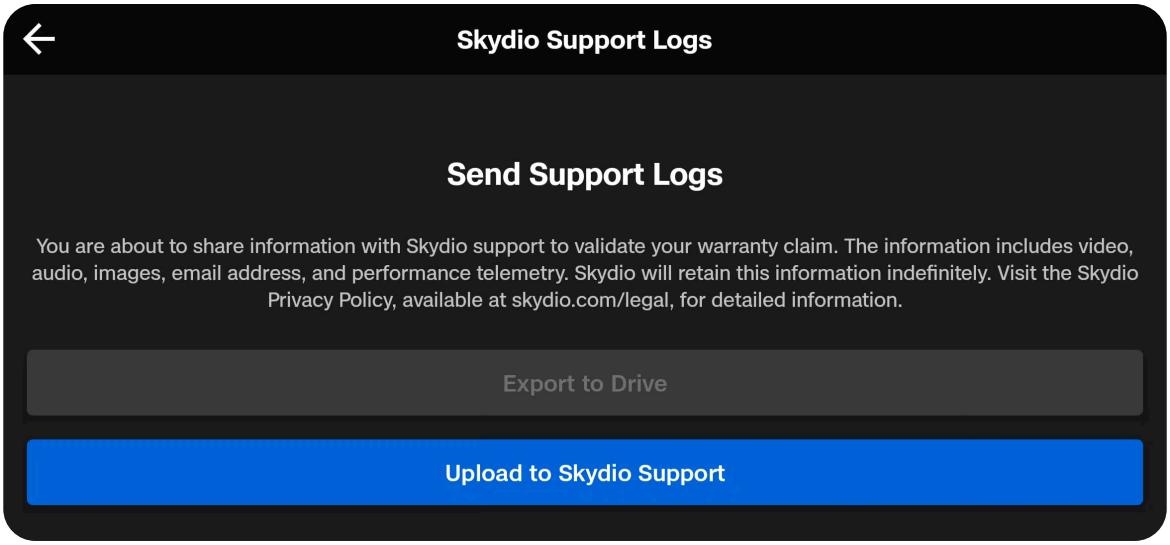
Step 2 - Navigate to Global Settings > Information

Step 3 - Select Skydio Support Logs





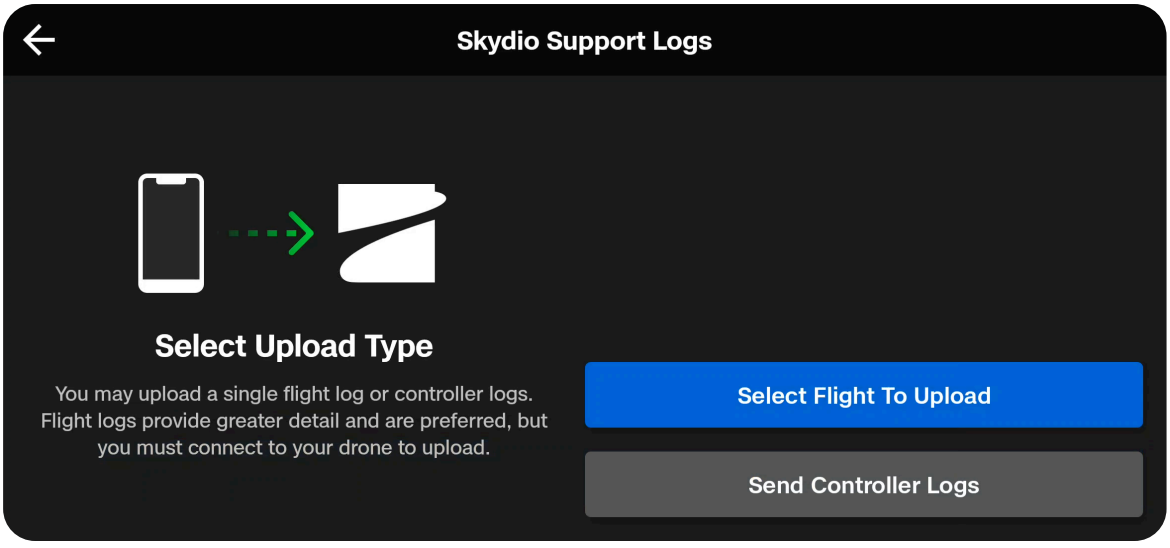
Step 4 - Select Upload to Skydio Support



Step 5 - Choose between a flight or controller logs

Select Flight to Upload includes all logs from a specified flight. This option will show you the history of all flights, organized by date and time. Select the individual flight you wish to upload.

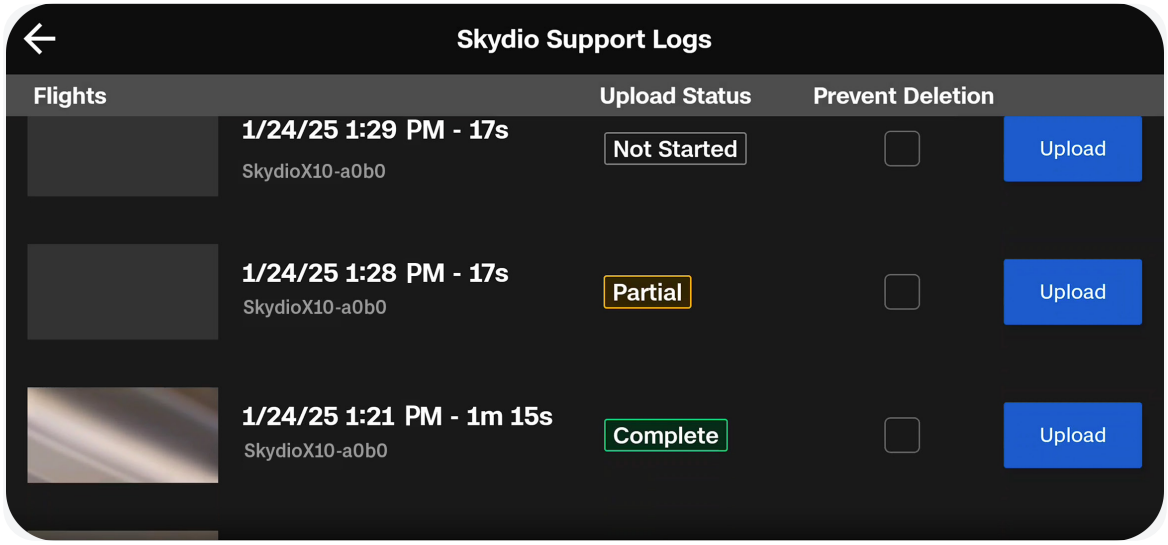
Send Controller Logs uploads all flights saved on the controller from all flight history. This option allows you to sync logs whether or not you are connected to the drone.

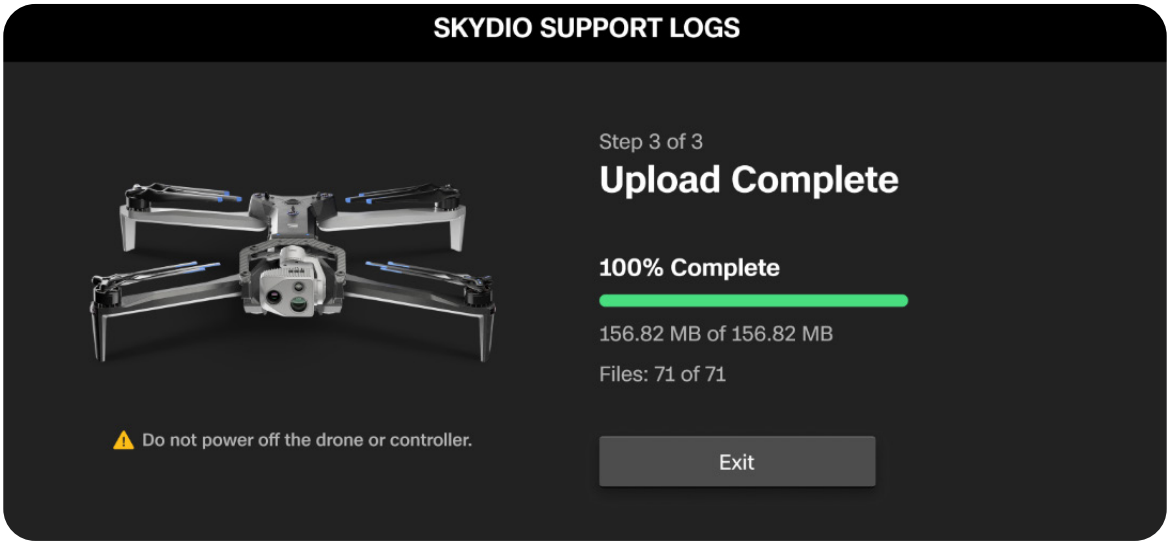


Step 6 - Upload Flight Logs

If you selected **Select Flight to Upload** in the previous step, select which flight you wish to send to support.

Wait as your upload completes. You will see a summary after the upload finishes.





Uploading Debug Logs

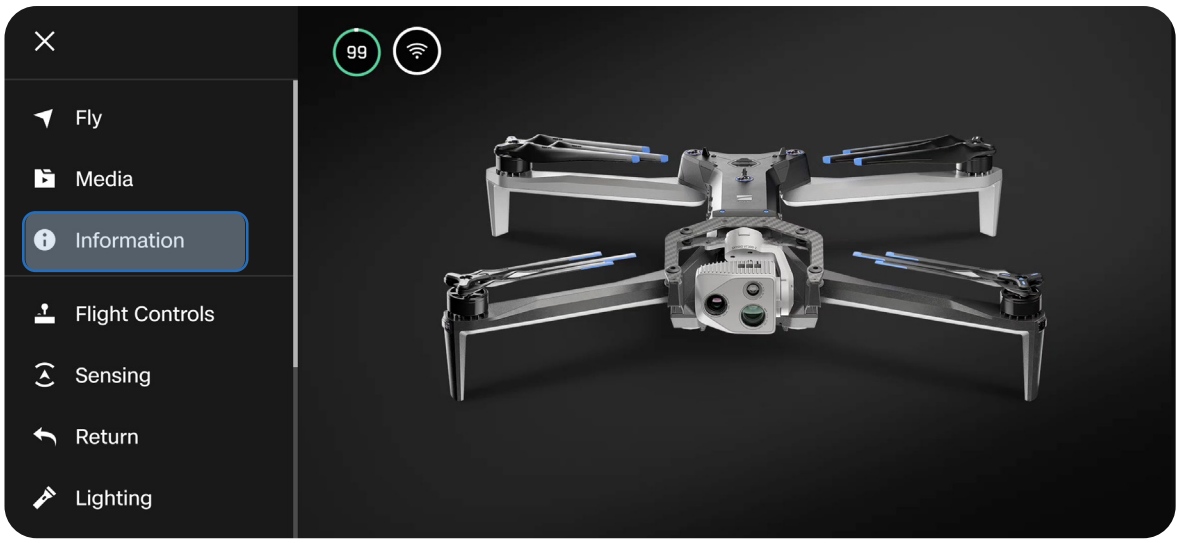
Depending on the issue, Skydio Support may ask you to upload debug logs.

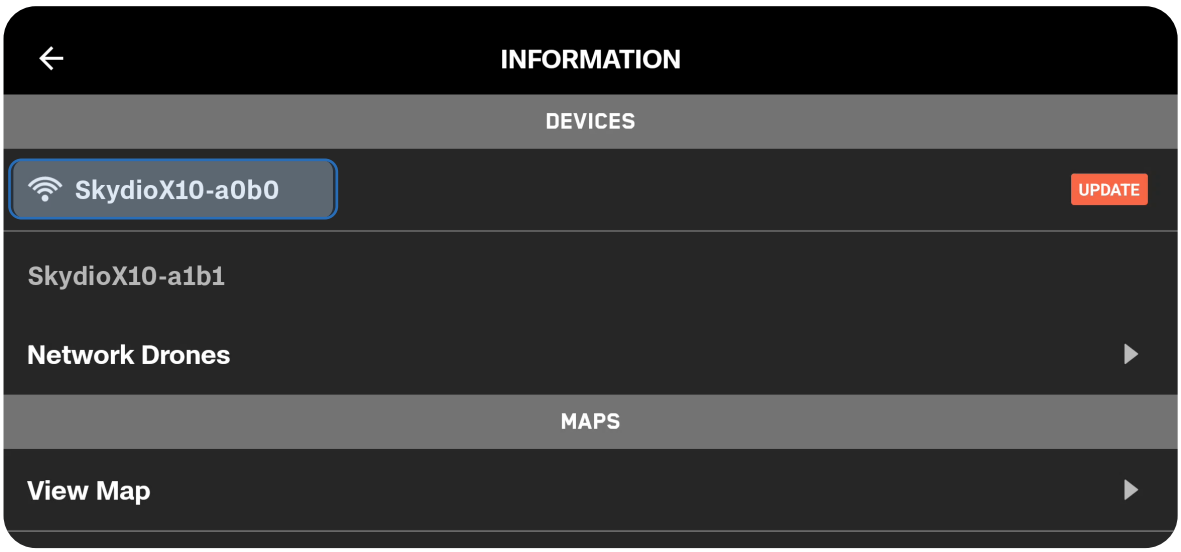
Step 1 - Power on Skydio X10 and the X10 Controller

Ensure your X10 Controller is fully charged.

Step 2 - Navigate to Global Settings > Information

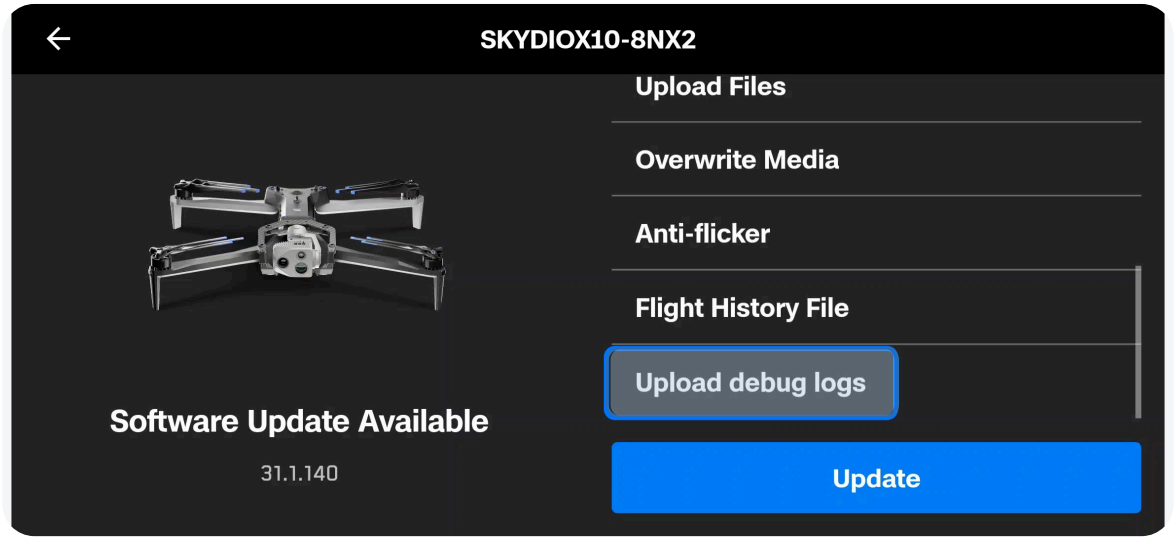
Step 3 - Select the name of your X10 under Devices

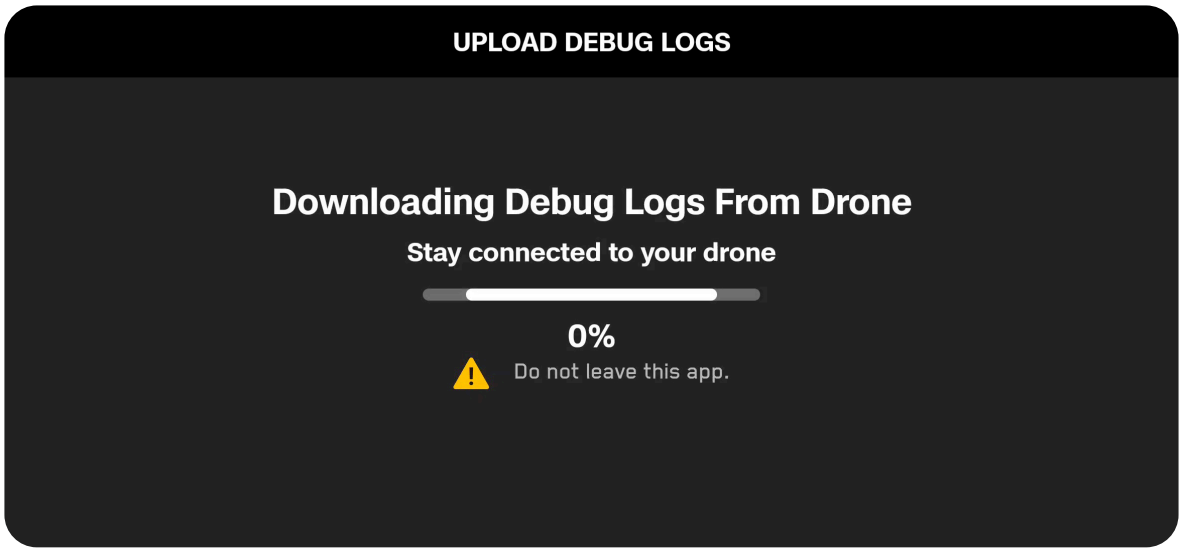




Step 4 - Select Upload debug logs

It may take a few minutes for debug logs to upload to Skydio.





Maintenance

This section covers

Maintenance Schedule

To optimize the performance of your Skydio X10 it's important to keep your drone updated, inspect your equipment, store your equipment properly, and occasionally replace your propellers and batteries.

Action	Interval
Update system	When an update is available (per your organization's guidelines).
Clean drone navigation cameras	Before each operational session, and after sessions in dust or precipitation. If flying in areas with high amounts of dust or debris, you may be prompted to clean your camera lenses before each flight.
Replace propellers	Per 250 hours of flight time
Replace battery	Per 300 battery cycles A battery cycle is the depletion of at least 80% of the charge. An undamaged and properly stored battery can be safely used beyond 300 cycles.
Inspect and/or replace sensor package isolators	Every 40 flights or 30 hours of flight time. If you are storing the drone in hot temperatures (122°F/50°C to 131°F/55°C), then we recommend inspecting every 20 flights (or every 15 hours of flight time).

Maintenance

Description	Performed By	Action	Frequency
Check for damage, wear, and proper alignment of the blades, propeller hub and interface to motor	Operator	Inspect	Routinely
Examine motor mounts for stability and damage	Operator	Inspect	Routinely
Inspect for external signs of wear or damage	Operator	Inspect	Routinely
Check light cover for damaged	Operator	Inspect	Routinely
Inspect Time of Flight sensor lenses for damage/Debris	Operator	Inspect	Routinely
Inspect fan exhausts for obstructions or damage	Operator	Inspect	Routinely
Ensure arms rotate smoothly without obstruction	Operator	Inspect	Routinely
Check for damage in the battery connection pins	Operator	Inspect	Routinely
Check for batteries for swelling	Operator	Inspect	Routinely
Examine navigation cameras for clarity and damage. Check for lens damage and recessed cameras	Operator	Inspect	Routinely
Manually spin motors to check for smooth operation	Operator	Check	10 flight hours
Check arm stops for proper functioning	Operator	Check	10 flight hours
Inspect for cracks or damage around arm hinge	Operator	Inspect	10 flight hours
Inspect landing legs for damage or wear	Operator	Inspect	10 flight hours
Inspect 6 navigation camera protective fins are present and free of damage	Operator	Inspect	10 flight hours
Check for damage or wear in the battery bay	Operator	Inspect	10 flight hours
Check fan inlets for blockages or damage	Operator	Inspect	10 flight hours
Examine sensor cameras for lens clarity	Operator	Inspect	10 flight hours
Check gimbal motors for movement	Operator	Inspect	10 flight hours
Inspect gimbal isolators for wear or damage	Operator	Inspect	10 flight hours

Maintenance

Description	Performed By	Action	Frequency
Charge stored vehicle batteries	Operator	Charge	2 months
Charge stored controller batteries	Operator	Charge	2 months
Check visible motor wires for fraying or damage	Operator	Inspect	50 flight hours
Inspect all fasteners for tightness and wear	Operator	Inspect	50 flight hours
Inspect welds on arms for cracks or weaknesses	Operator	Inspect	50 flight hours
Inspect for damage on gimbal frame, confirm that screws are secure	Operator	Inspect	50 flight hours
Check attachment bracket for cracks, confirm C-Clip to bracket is installed tightly	Operator	Inspect	50 flight hours
Check all USB-C port seals for leaks or damage	Operator	Inspect	50 flight hours
Test lights for proper operation	Operator	Inspect	50 flight hours
Confirm attachment connector is free of debris	Operator	Inspect	On Install
Check cables for damage	Operator	Inspect	On Install
Confirm attachment are fully seated and torqued	Operator	Inspect	On Install
Inspect propeller hub for more than 10° of movement	Operator	Inspect	50 flight hours
Replace damaged or worn propellers	Operator	Replace	250 flight hours
Replace batteries as needed due to health warnings, visual inspection, or damage	Operator	Replace	On fault or damage
Replace battery lifecycle	Operator	Replace	300 cycles
Replace faulty motors or arms	Skydio	Replace	On fault or damage
Factory service to replace cameras and recalibration and repeat end of line tests	Skydio	Replace	On fault or damage
Replacement or update sensor	Skydio	Replace	On fault or damage

Physical Inspection

WARNING: *Carefully inspect your drone and environment before launching to ensure a safe flight.*

- **Inspect the chassis** to ensure it is free of damage.
- **Inspect drone arms** and verify they are fully extended and free of damage.
- **Inspect the battery** and confirm it is securely seated prior to launching. Skydio X10 uses magnets to seat the battery which may attract metallic debris. Ensure the connector pins are free of debris or damage.
- **Clean the camera lenses and time of flight sensor** with a clean microfiber cloth. Cameras should be dust and smudge-free before flight.
- **Fan out the propellers and inspect** to verify they are firmly attached and properly seated in the motors and spin freely. Propellers should be free of cracks or damage. Do NOT fly with damaged propellers.
- **Inspect the sensor package before powering on** and ensure it moves freely and is not damaged, and remove the Gimbal Stabilizer Clip before flying.
- **Ensure all USB-C and microSD card seals are secured** over the ports.
- **If using an attachment, inspect the connections** and confirm cables are fully seated and thumb screws are secure. Loose or partially connected cables may detach during flight and cause damage.
- **Check your surroundings before launching** to ensure a safe environment for flight.
- **Point the controller cover/antennas toward the drone** for maximum wireless performance.
- **Verify batteries and the controller are fully charged** before flying.
- **Check for drone and controller updates** before flying.

Cleaning the Flight System

It is recommended to wipe down your drone after flights in environments with significant dust or debris.

> ***WARNING:*** *Do not submerge your drone or batteries or place them under running water. Water volumes from flight in precipitation are much lower than those from a faucet or hose. Water may get into areas where the drone is not designed to withstand and you may compromise the sensors.*

- Wipe down your drone with a dry or water-damp microfiber cleaning cloth.
- Only use lens cleaner on cameras.
- Do not submerge your drone or batteries.
- Do not place your drone or batteries under running water.
- Use a compressed air canister to remove any debris in hard to reach areas.
- If needed, mild soap and water may be used to remove heavier dirt or debris. Avoid getting any soap near ingress areas on the drone.
- Keep all the drain holes on the drone and battery clear. If any debris is blocking a drain hole (e.g., mud), use compressed air or gently scrape with a toothpick to remove.

Storage

- Do not store Skydio X10 while wet. After flying in precipitation, allow the drone to air dry in a dry, temperature-controlled environment before stowing. Visit the Flying in Precipitation section of this manual for more information.
- Store batteries at room temperature 71°F - 82°F (22°C - 28°C) for optimal performance and longevity.
- Store batteries in a cool, dry area with less than 75% relative humidity. Do not store your batteries in extreme environmental conditions.
- Batteries in an idle state (14 days of idle time with no flights) will start to self-discharge in an effort to retain capacity. This may take several days to complete and it is normal for the battery to be slightly warm during this discharge process.

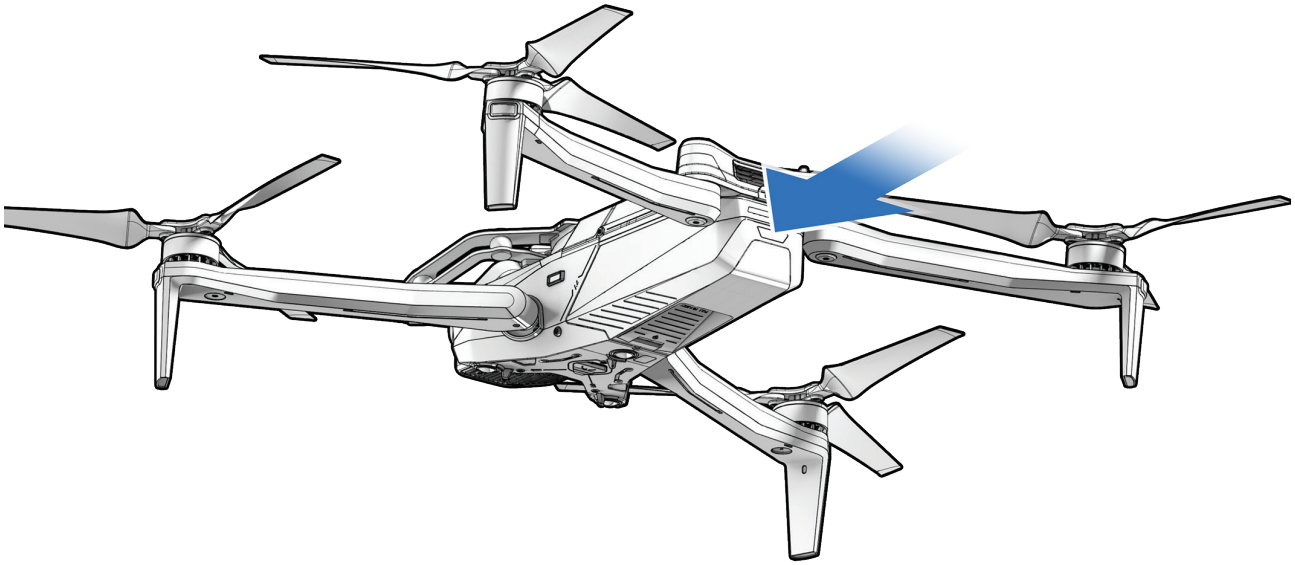
Stowing Skydio X10

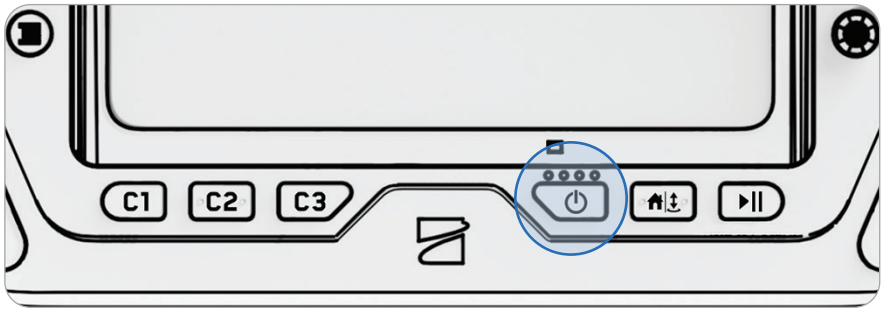
Step 1 - Wait for postflight tasks to complete

If the battery is low while performing a longer postflight task, such as Onboard Modeling with Map Capture, ensure the drone is plugged into a power source.

- Powering off or removing the battery during postflight tasks will result in loss of data

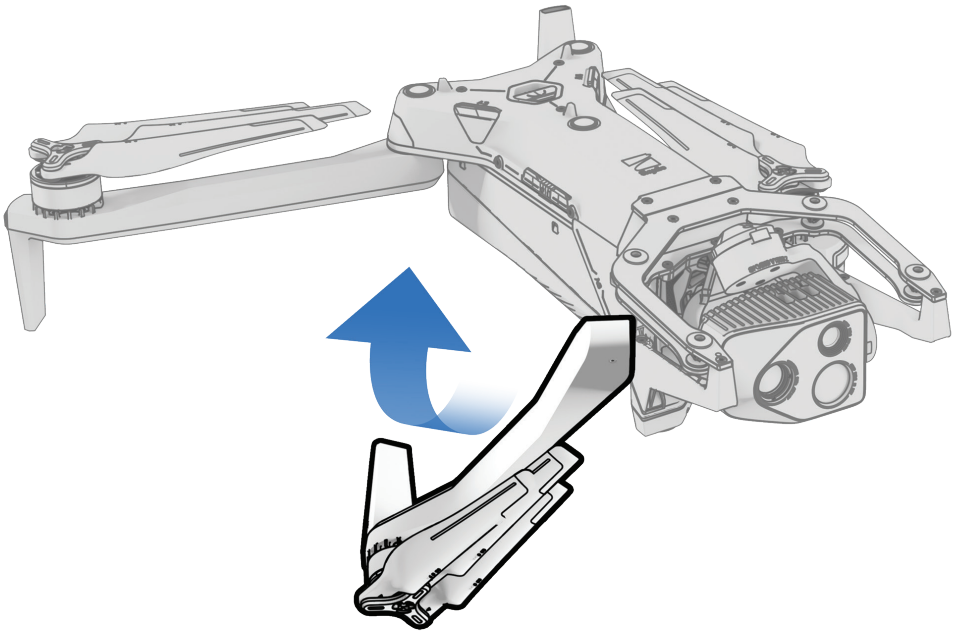
Step 2 - Power off Skydio X10 and the X10 controller





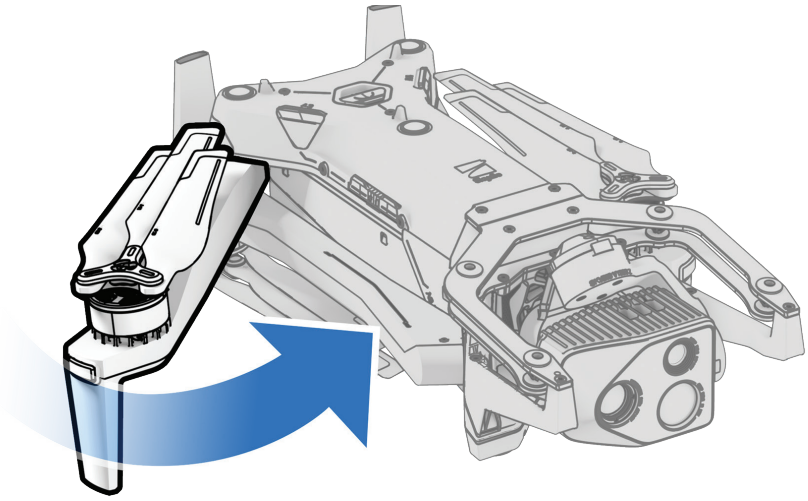
Step 3 - Fold in the front arms

Hold the drone with the sensor package facing away from you. Gently pull the arm toward the back of the drone and rotate until it is tucked into place.



Step 4 - Fold in the rear arms

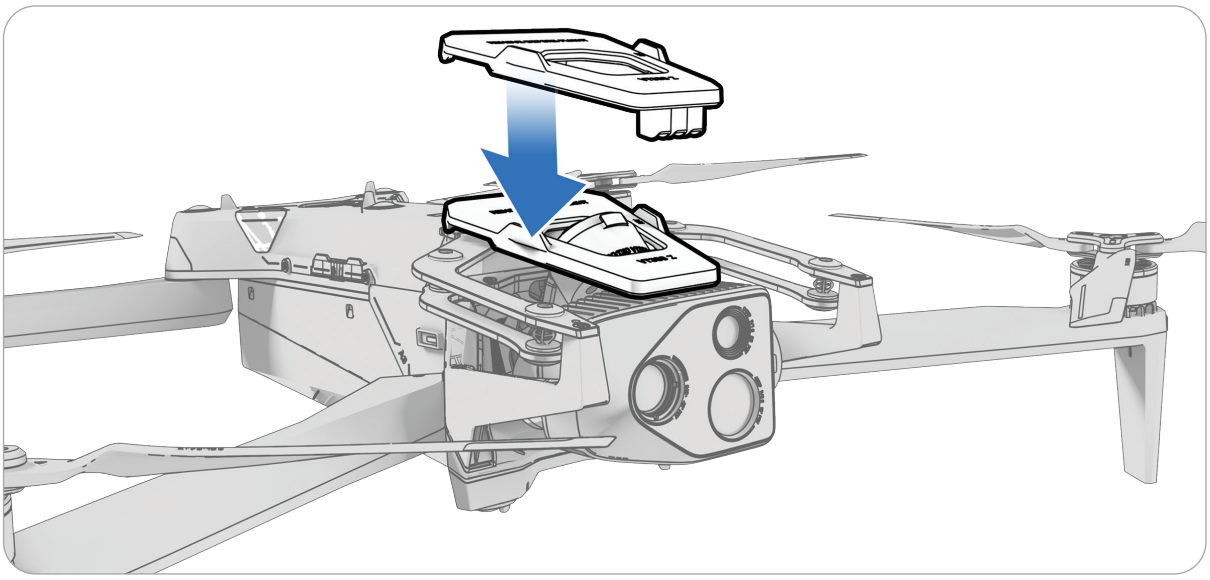
Push laterally toward the chassis. Gently continue until you meet resistance.



Step 5 - Attach the gimbal stabilizer clip

Hold the sensor package and gently reattach the lock to the top of your drone.

- Ensure you are using the correct gimbal stabilizer clip for your sensor package. The clip label should match your gimbal version (for example, “VT300-Z REV2”). Using the wrong clip will prevent proper fit.



NOTE: *Refer to the Flying in Precipitation section of the Skydio X10 Operator Manual for steps on how to properly store your drone after flight in precipitation.*

Differences between Skydio X10 REV 1 and REV 2 Propellers

> ***NOTE:*** *Propellers are consumable items and should be planned for and replaced as part of a regular maintenance schedule when they reach the end of their usable life. To purchase new propellers, work with your Skydio account team.*

Revision 2 (REV 2) Propellers enhance durability and reliability, and addresses an accelerated propeller hub wear issue seen with the previous Revision 1 (REV 1) design per NTO: Skydio X10 Accelerated Propeller Hub Wear.

The REV 2 propeller design features two primary changes:

- **Materials** - Skydio shifted to using low-friction plastic as we found that this was most capable of handling high aerodynamic loads at the interface of propeller hub and the motor shaft
- **Stabilizing Hoop** - Added to reduce strain on the quick-release attachment point and improve structural integrity under high-stress/high-speed flight conditions

Perform routine preflight inspections to ensure your propellers are in good working condition. **Skydio X10 propellers are designed for up to 250 hours of useful life under normal flight conditions**.

Skydio recommends drones that are still flying with REV 1 propellers and accumulate flight hours primarily via high-stress profile conditions undergo a visual propeller hub inspection every 5 flight hours. High-stress flight conditions include:

- Sustained flight airspeed above 33 mph (53 km/h)
- Aggressive or max throttle, pitch, and yaw
- Flights conducted in high wind or gust conditions

If propellers are reaching the end of their cycle count or accelerated propeller wear is detected, you will see the following notification on the controller:

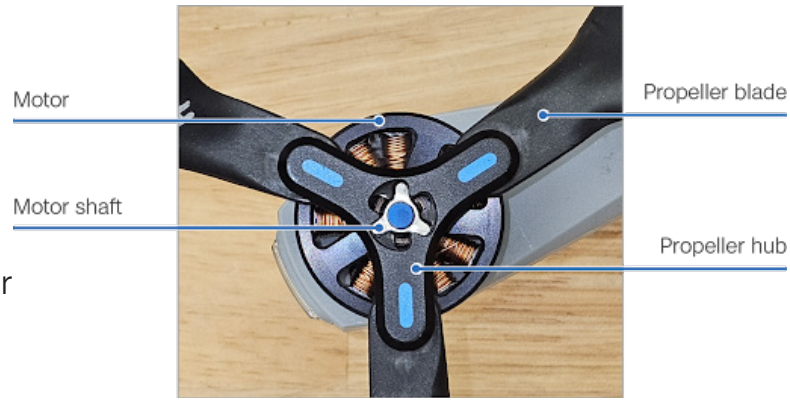
Inspecting Propeller Hubs

The inspection procedure involves observing the degree of movement in the propeller hub and the motor shaft.

Step 1 - Place Skydio X10 on a stable, flat surface

Step 2 - Grasp the motor between your index finger and thumb with one hand

- Grasp the propeller hub with your other hand

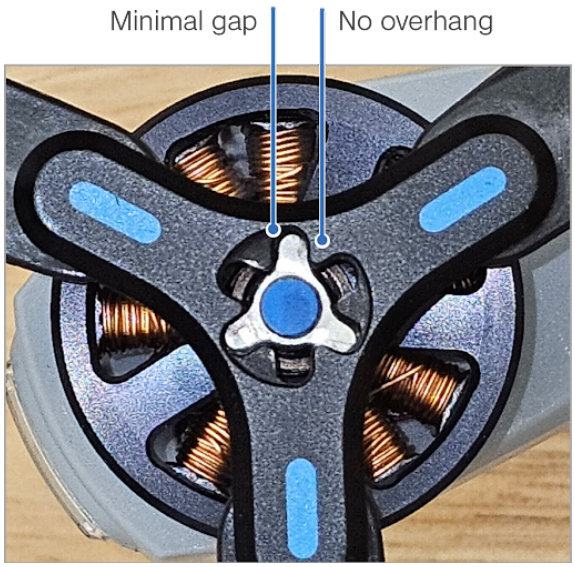


Step 3 - Apply firm opposite torsion between the propeller hub and the motor in both directions without pressing down

Step 4 - Look and feel for movement of the motor shaft compared to the pocket it rests in within the propeller hub

Flight worthy propeller hub:

- Propellers with less than 10 degrees of movement
- The top surface of the motor shaft is not occluded by any portion of the propeller hub
- There is no accumulation of gray dust around the top of the hub



Inspecting Propeller Springs

The X10 propeller springs keep the propeller in place and allows for easy installation and removal of the propeller. The springs can get damaged after high flight hours or with REV 1 propellers.

Inspect all four propeller springs. If all conditions are true, the drone propeller springs must be replaced. Reach out to Skydio Support for further assistance:

- Spring is damaged or broken in pieces
- The motor spins freely while hand spinning

If the motor does not spin freely, contact the Skydio Support team for next steps as the drone will need to come back to Skydio for repair.

To request spare parts for propeller spring repairs, contact the Skydio Support team.

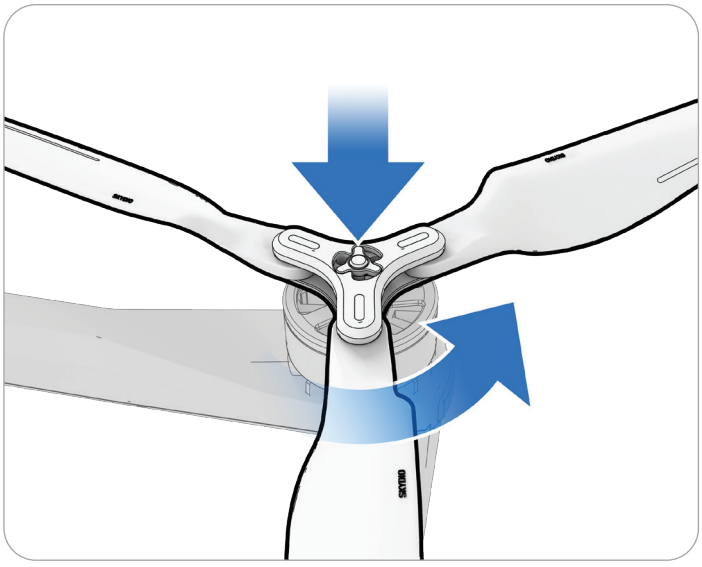
Replacing Propellers

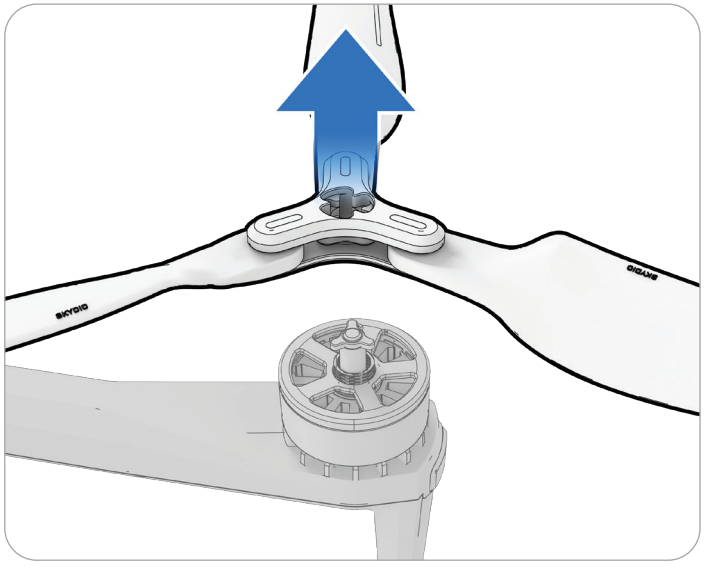
WARNING: *Propellers with hairline cracks or large breaks, chops, or bends should be replaced immediately. Do* ***NOT*** *fly Skydio X10 with propellers that are not in good condition as serious bodily harm or injury may occur.*

For optimal performance, Skydio recommends replacing your propellers **after 250 hours of flight time** or whenever you notice any damage. Organization Admins have the ability to enable Propeller Hour Tracking in Skydio Cloud Settings.

Step 1 - Remove old or damaged propeller set

Hold onto the motor with one hand and take the propeller hub in the other. Press down on the propeller hub and twist to release.





NOTE: *You will need to twist either clockwise or counterclockwise depending on the motor.*

Step 2 - Identify the propeller set that matches the motor

Match the replacement set of propellers to the color on the motor.

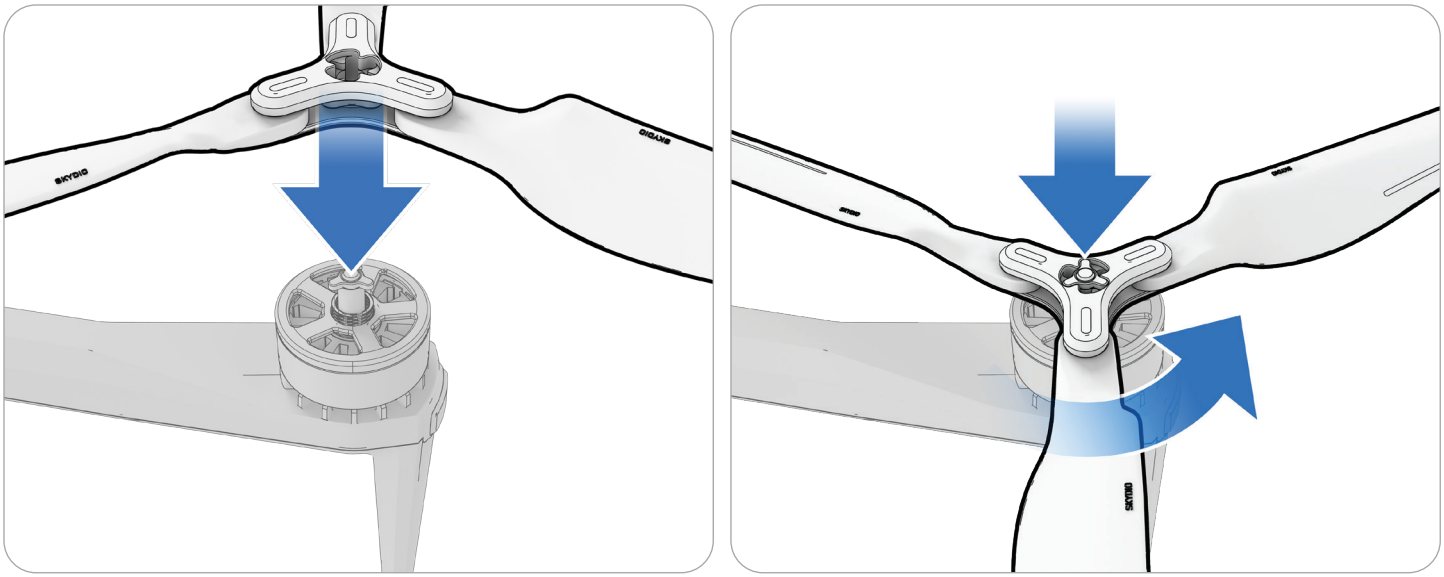
Step 3 - Inspect for any debris

Inspect the motor to ensure there is no dirt or debris.

Step 4 - Install new propeller set

Hold onto the motor with one hand and take the propeller hub in the other. Flip the propeller hub so the opening on the hub aligns with the motor. Press down and twist to lock in place.

Be gentle and do not force the fitment. If the propeller set does not fit on the motor it might be the incorrect set or side.



NOTE: *You will need to twist either clockwise or counterclockwise depending on the motor.*

TIP: *The total number of flight hours for your drone is tracked in Skydio Cloud. Consider replacing all propellers at the same time for ease of tracking total propeller flight time.*

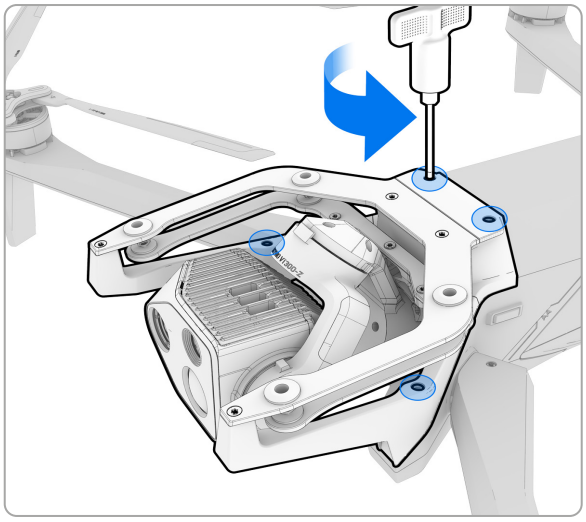
Removing the Sensor Pacakge

WARNING: *Always hold the sensor package by the frame. Do not hold the sensor package camera housing.*

Step 1 - Remove your sensor package lock and the battery

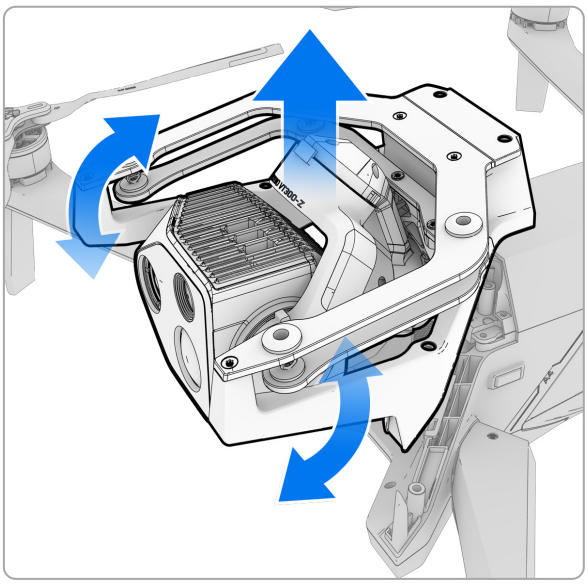
Step 2 - Loosen the 4 sensor package screws

- Using the torque driver provided in your kit
- The 4 screws will remain attached to the sensor package frame



Step 3 - Remove the sensor package

- Hold the edges of the sensor frame
- Gently rock side to side while lifting up to 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 mounting posts.



Step 4 - Reattach the sensor lock and store in the sensor case

Installing the Sensor Pacakge

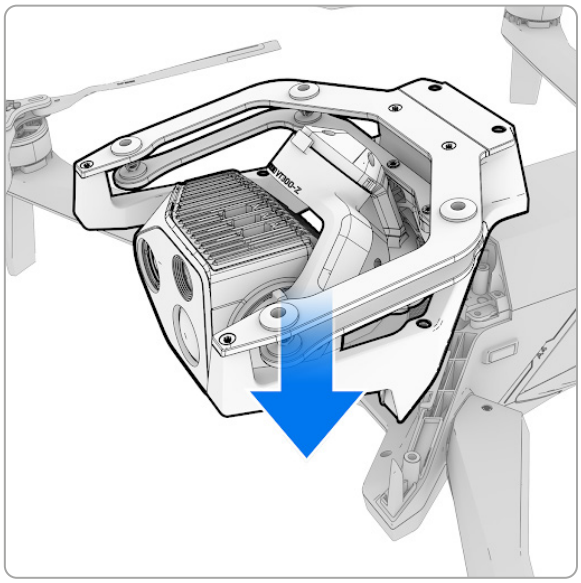
Step 1 - Remove your sensor package lock

Step 2 - Remove the battery from the X10

Step 3 - Locate the 4 screw holes on the airframe

Step 4 - Install the sensor package

- The mounting posts on the airframe will guide the alignment of the embedded screws on your sensor package
- Insert the sensor package straight down

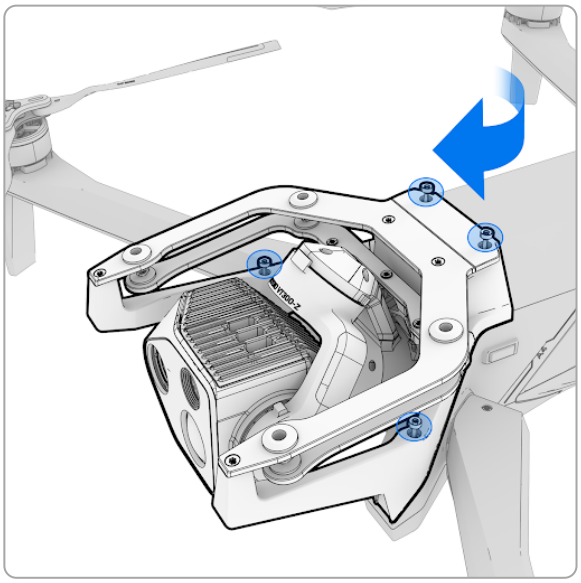


Step 5 - Press sensor package into place

- Firmly press straight down between the two screws on top of the sensor frame until it locks in place

Step 6 - Tighten sensor package screws

- Use the provided torque driver to tighten all four screws
- The torque driver will click when you reach the appropriate torque to prevent over-tightening



Step 7 - Insert the X10 battery and power on your drone

Step 8 - Power on your controller and wait for your devices to pair

- Your drone will boot up and calibrate the new sensor package

Replacing Sensor Pacakge Isolators

The Sensor Package Isolators help stabilize the cameras and provide a smooth, crisp image, even in tough flight conditions.

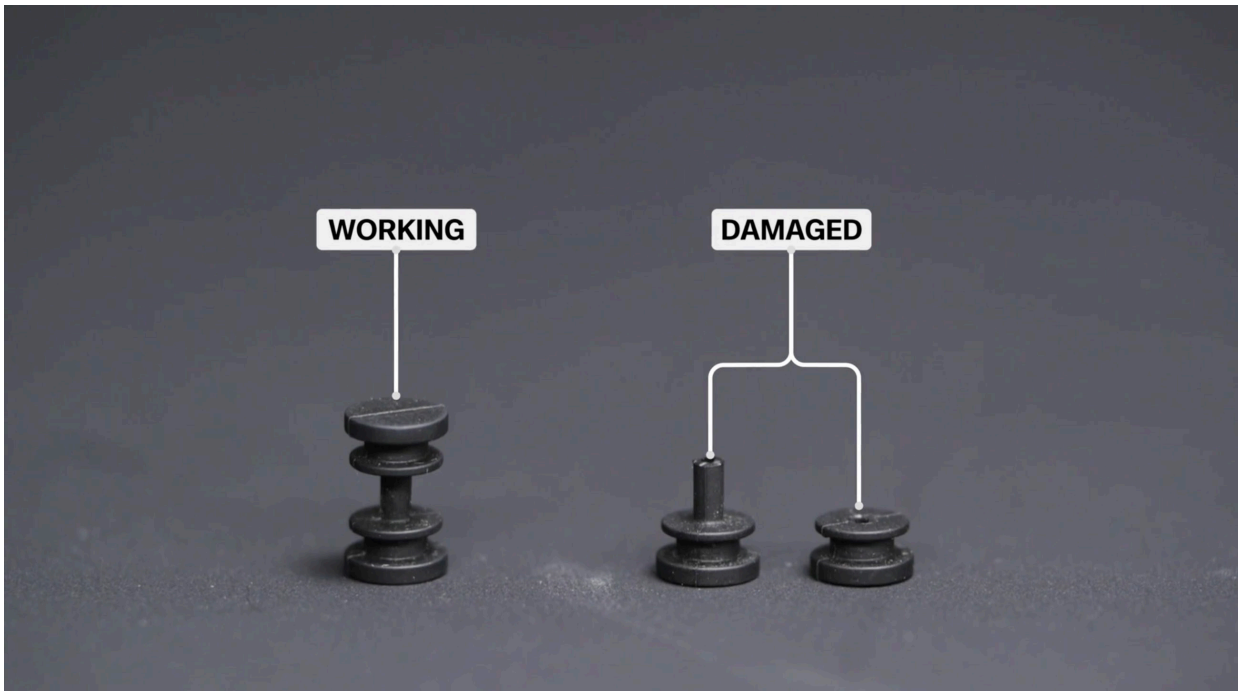
- If you are storing the drone in hot temperatures (122°F/50°C - 131°F/55°C), then we recommend inspecting every 20 flights (or every 15 hours of flight time)

To ensure your Skydio X10 system stays healthy, we recommend inspecting the Sensor Package Isolators every 40 flights (or every 30 hours of flight time).

Inspect the isolators regularly for any signs of damage. If you notice damage, replace the isolator.

- Abnormal wear
- Tears
- Any separation on the isolator, especially where the inner gaskets meet the main connector

Visit *support.skydio.com* to watch a video about replacing sensor package isolators.



Removing an isolator

Step 1 - Power off and remove the Sensor Package Lock

Leave the sensor package attached.

Step 2 - Remove the isolator from the upper bracket

Gently pull the top part of the isolator down through the upper bracket.

When pulling down, pinch the edges of the inner gasket to give you more leverage and avoid causing a tear. Use your other hand to help push through the top part of the isolator down through the hole if needed.

Step 3 - Remove the isolator from the bottom bracket

You can slightly offset the bracket to give you more working space.

Pinch the edges of the inner gasket, this time pulling up. It helps if you use a slight peeling motion as well.

Installing an isolator

Step 1 - Insert the isolator into the bottom bracket

One side of the isolator will have a hole in it. This end goes on the lower bracket.
Start in between the upper and lower brackets. Thread the edge of the circular piece through the hole in the lower bracket, then pull the rest through from the bottom until fully seated.

Roll and pull the edges down if needed to ensure the isolator is fully seated.

Step 2 - Insert the isolator into the upper bracket

Thread the remaining half of the isolator through the hole in the upper bracket. You may have to gently align the upper bracket with the hole, as it is designed to be slightly offset

Once you thread an edge through, pinch and pull until the isolator is fully seated.

Check the edges and roll into place if necessary. Once finished, it should match the other isolators on the drone.

Batteries

Skydio X10 uses lightweight, rechargeable lithium polymer batteries (LiPo) that provide higher specific energy than other lithium batteries. Following the guidelines listed below will ensure long battery life and safe operation.

Lifespan

The lifespan of a Skydio X10 battery is 300 battery cycles. A battery cycle is the depletion of at least 80% of the charge. After this point, you may experience a decline in charging and performance. Battery life is highly dependent on your use case, and Skydio recommends replacing your battery when the flight time has degraded below what is acceptable for your use case.

Temperature

- Charging should be completed in an open area
- It is normal for the device to become warm to the touch
- Do not operate Skydio X10 or charge batteries at temperatures below -4°F (-20°C)
- Do not charge your batteries when the ambient temperature is above 113°F (45°C)

Storage

- Fully charge and discharge vehicle and controller batteries every two months
- Store batteries at room temperature 71°F to 82°F (22°C to 28°C)
- Store batteries in a cool, dry area with less than 75% relative humidity
- Batteries in an idle state (14 days of idle time with no flights) will start to self-discharge in an effort to retain capacity. This may take several days to complete and it is normal for the battery to be slightly warm during this discharge process.

Damage

- Do not disassemble the batteries
- Avoid dropping or striking the batteries
- Do not attempt to use batteries that are damaged, dented, or ruptured after a crash or drop
- Do not immerse the batteries in water or other liquids
- Lithium polymer batteries can leak, overheat, melt, release harmful gas, burst or ignite when exposed to heat, water, and other liquids or when pierced, punctured, or ruptured
- If any substances leak from the battery pack and get into your eyes, do not rub them. Seek medical attention immediately!
- Contact your local waste facility to verify if lithium polymer batteries are permitted for disposal
- Do not insert any foreign material into the battery terminals
- Do not disassemble the battery enclosure

Battery Disposal

WARNING: *If your battery shows signs of damage (cracks or swelling), place the battery in a non-flammable enclosure away from people and contact your local hazardous waste recycling agency for safe handling and disposal procedures.*

Your Skydio X10 batteries are not considered household waste. Properly dispose of e-waste and lithium polymer batteries in accordance with your local laws and regulations. Visit the EPA or your country's environmental regulatory agency website for more information about disposal and recycling options for batteries.

To dispose of your Skydio battery:

Lithium batteries must be disposed of at e-waste collection points or battery-recycling drop-off locations. Take care when disposing of your Skydio battery. Contact your local waste facility to verify if lithium polymer batteries are permitted.

- Do not throw out batteries in your regular household garbage or recycling bin
- Do not burn batteries in a fire; they may explode
- Do not mix damaged, and non-damaged batteries
- Avoid storing batteries in metal containers

Resetting the Skydio X10 Controller

If your Skydio X10 Controller is in an unresponsive or other off-nominal state, you may need to reset it. There are two ways to do this:

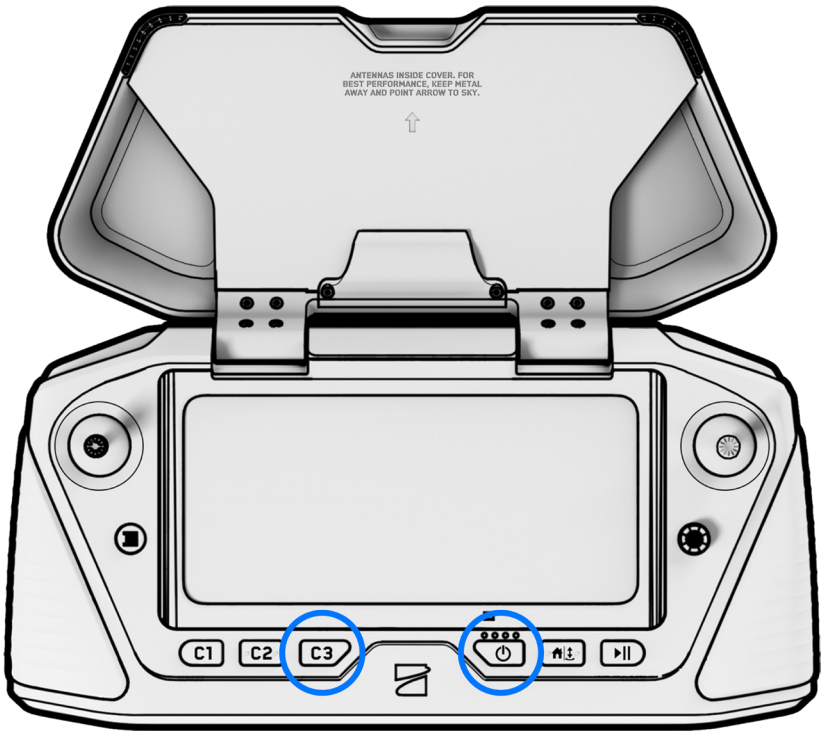
- **Hard reset** allows you to power off the controller and reboot. While this option forces the controller to power cycle, helping to resolve temporary issues like freezing, it does not trigger a full reset or restore your controller to its original factory state.
- **Recovery Mode** is designed for more severe issues, such as when your controller is fully unresponsive. It gives you the ability to perform a factory reset, clearing all device data and returning the controller to its initial setup state—similar to when you first took it out of the box.

Hard Reset

Option 1 - Perform a hard reset

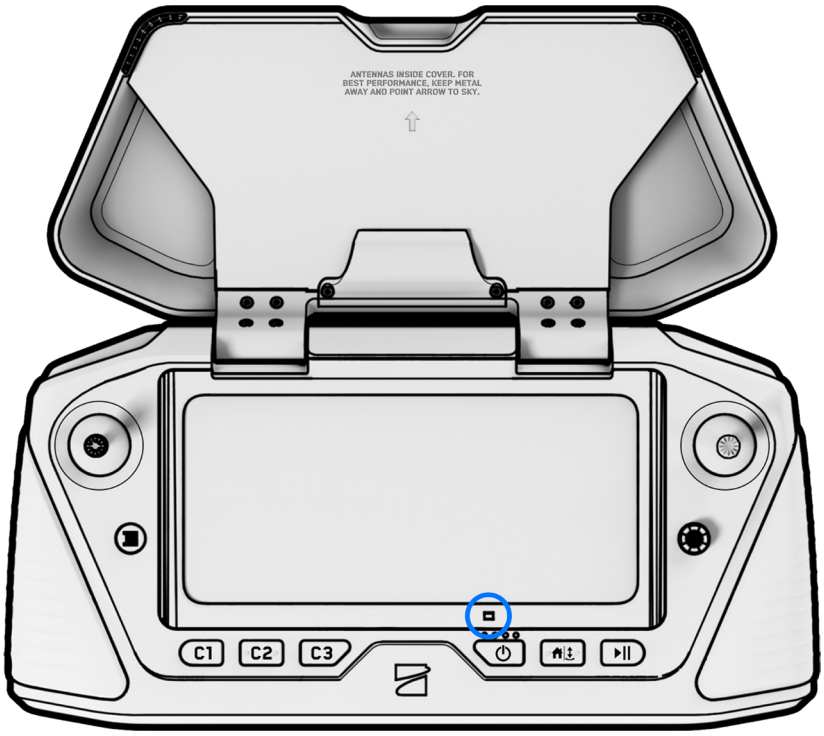
1. Simultaneously press and hold the C3 and Power buttons for 10-15 seconds
2. Wait for your controller to reboot

If that does not work, go to Option 2.



Option 2 - Reset your controller screen

1. Press and hold the small reset button on the front of the controller
2. Select Power Off or Restart
3. The controller will restart or power off, allowing you to power it back on again



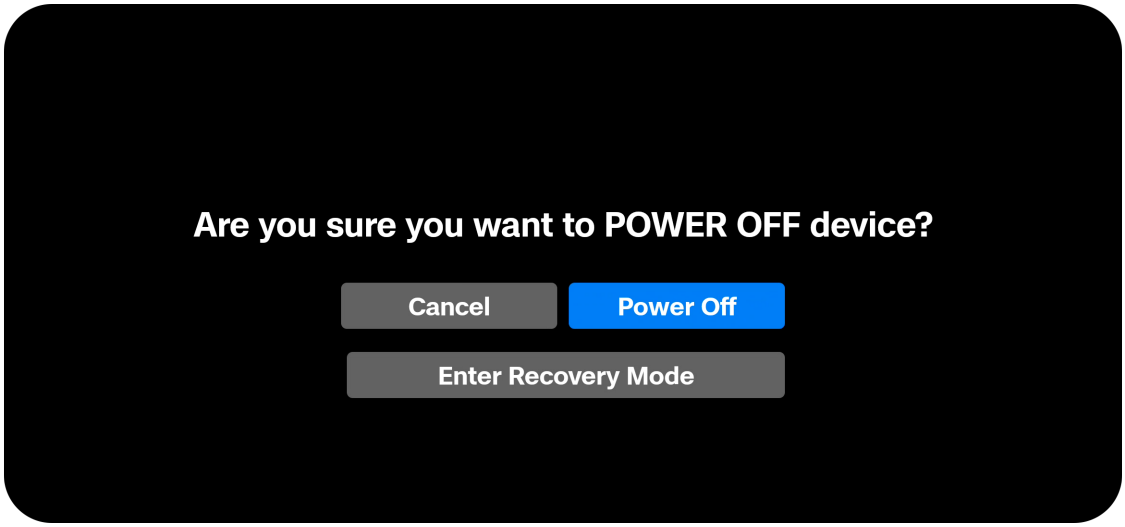
Recovery Mode

If your X10 Controller has entered an unusable state that does not resolve with the reset steps above, and you are unable to use the Factory Reset option within the Information menu, you may need to enter Recovery Mode.

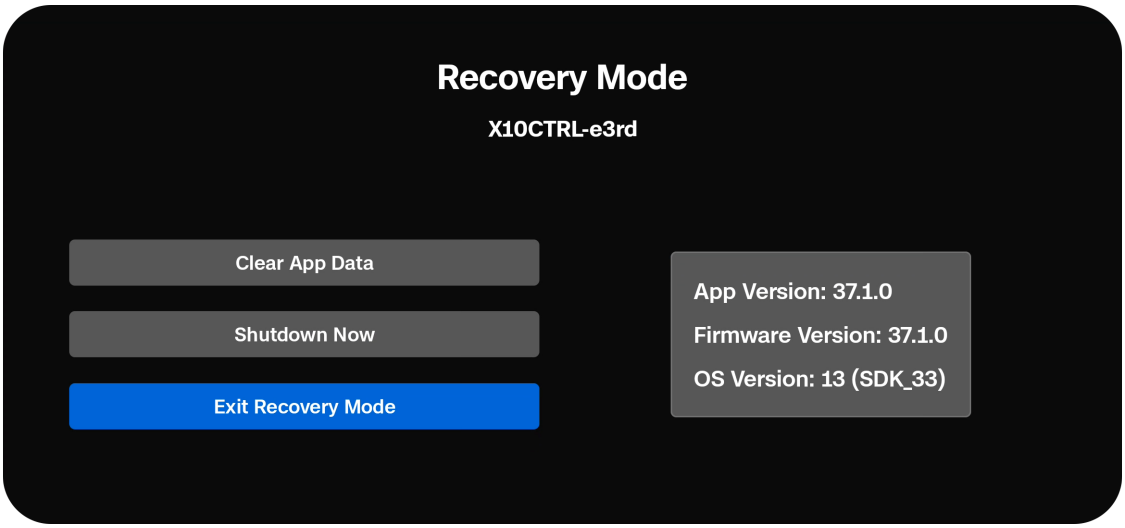
Step 1 - Hold the power button until you are prompted to power off the controller

Step 2 - Hold PAUSE, R1, and R2 simultaneously

Select **Enter Recovery Mode**.



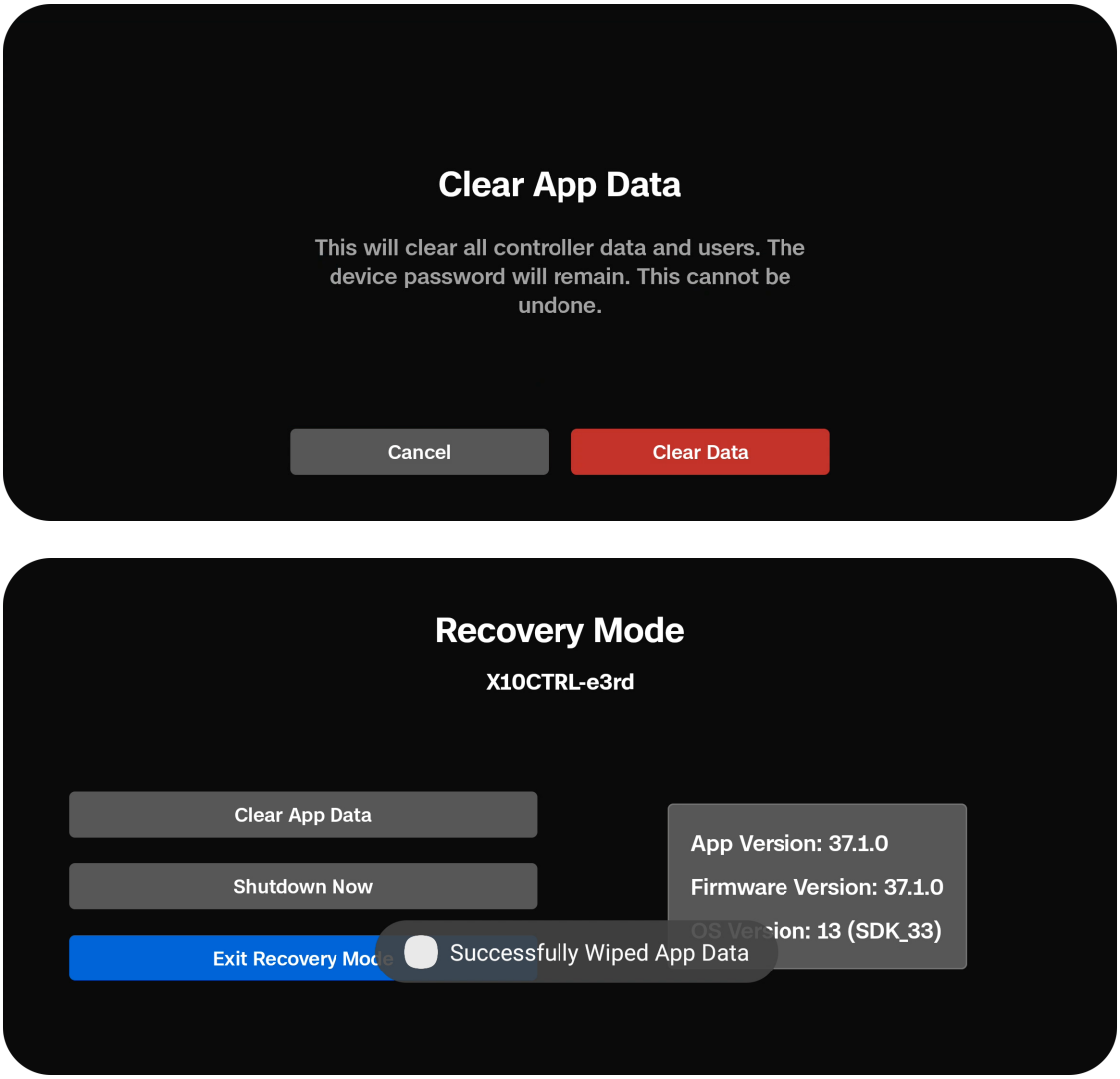
Step 3 - Select Clear App Data



Step 4 - Select Clear Data

This will begin the factory reset process, wiping all settings and stored data.

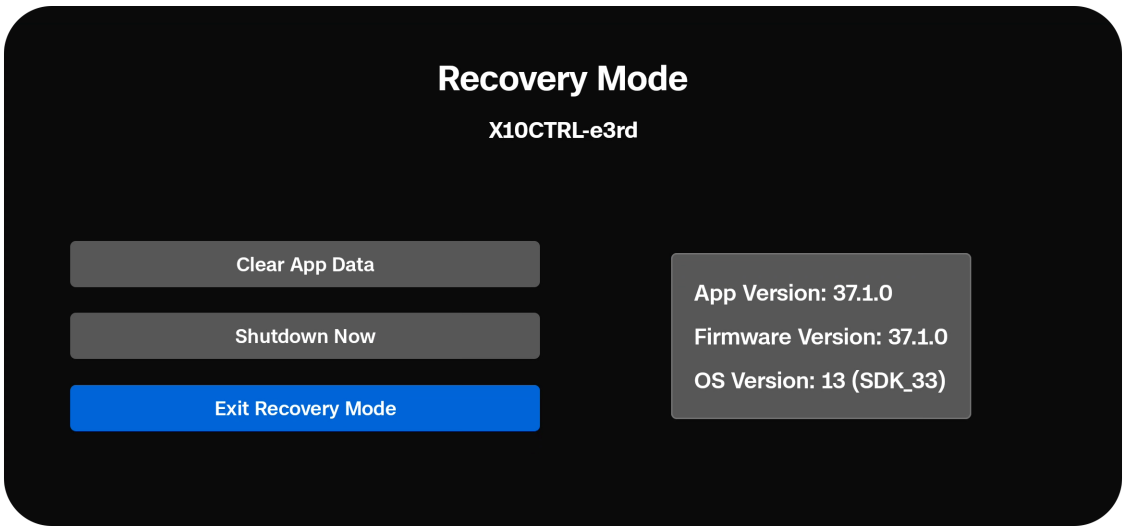
You will see a notification that confirms app data was successfully wiped.



Step 5 - Select Exit Recovery Mode or power off

Exit Recovery Mode - You will be prompted to begin setup as if the controller is brand new. This includes pairing the controller with your drone and reconfiguring your settings.

Power off - The controller will shut down. You will be prompted to set it up the next time it is powered on.



Legal

Legal

Safety
Review the *Skydio Safety and Operating Guide* available at *www.skydio.com/safety*.

Battery
Handle the battery with extreme care and refer to the Operator Manual and to the *Skydio Safety and Operating Guide* for additional information.

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer. Carefully dispose of batteries according to manufacturer's instructions and to your local environmental laws and guidelines.

Risque d'explosion si la batterie n'est pas correctement remplacée. Remplacer uniquement par un type identique ou équivalent recommandé par le fabricant de l'équipement. Jeter les batteries conformément aux instructions du fabricant et aux lois et directives environnementales locales.

Charging
Do not use the X10 Dual Charger near wet locations. To avoid the risk of electric shock, use only in dry locations. Do not allow anything to rest on the power cord. Do not locate this device where the cord will be abused by persons working on it. Do not overload wall outlets and extension cords as this can result in fire or electric shock.

N'utiliser pas le X10 Dual Charger à proximité d'endroits humides. Pour éviter tout risque de choc électrique, utiliser uniquement dans des endroits secs. Ne laisser rien reposer sur le cordon d'alimentation. Ne placer pas ce moniteur dans un endroit où le cordon pourrait être maltraité par les personnes travaillant dessus. Ne surcharger pas les prises murales et les rallonges car cela pourrait provoquer un incendie ou un choc électrique.

Legal

Skydio One (1) Year Limited Warranty
Skydio warrants 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*, *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
Skydio offers Skydio Care 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. Exposure to lithium-ion, containing cobalt lithium nickel oxide, and nickel, is 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 is 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*.

FCC Compliance Statement
These devices comply with Part 15 of the FCC Rules and with ISED Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) these devices may not cause harmful interference, and (2) these devices must accept any interference received, including interference that may cause undesired operation.

Ces appareils sont conformes aux normes RSS exemptes de licence d'ISDE Canada. Leur fonctionnement est soumis aux deux conditions suivantes: (1) ces appareils ne doivent pas causer d'interférences nuisibles, et (2) ces appareils doivent accepter toutes interférences reçues, y compris les interférences susceptibles d'entraîner un fonctionnement indésirable.

Changes or modifications not expressly approved by Skydio could void the user's authority to operate these devices.

These devices have 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 when these devices are operated in a commercial environment. These devices generate, use, and can radiate radio frequency energy and, if not installed and used in accordance with the Operator Manual and Safety and Operating Guide, may cause harmful interference to radio communications. Operation of these devices in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numerique de classe A est conforme a la norme Canadienne NMB-003.

Legal

FAA Compliance Statement
Unless specifically exempt, this product complies with 14 CFR Part 89 regulations on Remote Identification per ASTM F3411-22a-RID-B and ASTM F3586–22.

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
For all the latest information about Skydio and our products visit: *www.skydio.com*.
For Skydio legal information and product terms of use visit: *www.skydio.com/legal*.
Skydio products are protected by patents and trademarks, registered in the United States and other countries. For Skydio intellectual property information visit: *www.skydio.com/legal/ip*.

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