



X-STAR & X-STAR Premium

Quick Guide

With XI-5S Gimbal

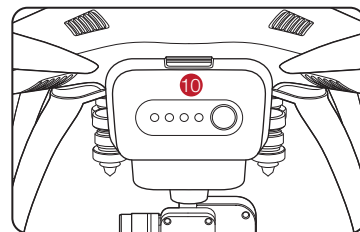
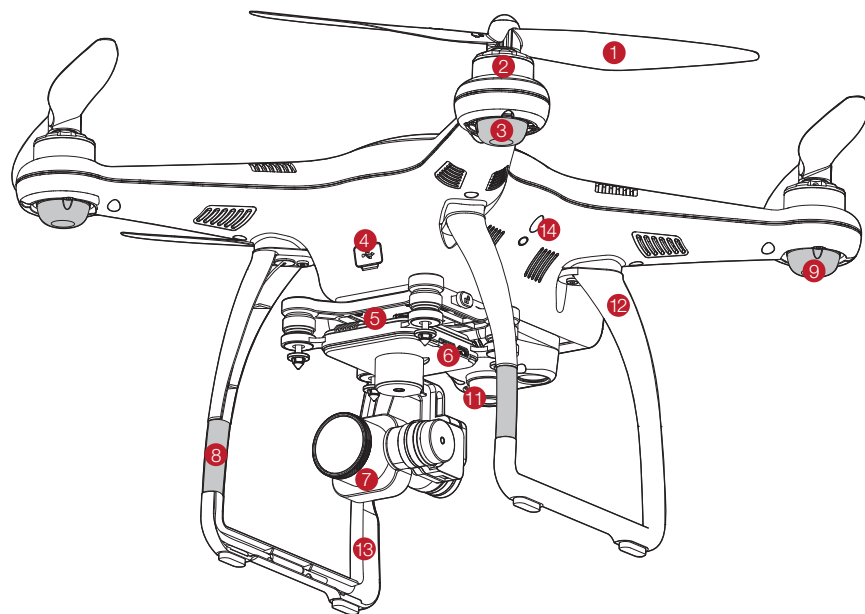
INSTALLING THE STARLINK APP

- Search for '**Starlink**' on the App Store or Google Play and install the app for X-Star/X-Star Premium on your mobile device.
- Launch the app on your mobile device.
- Make sure all the devices are fully charged before use.



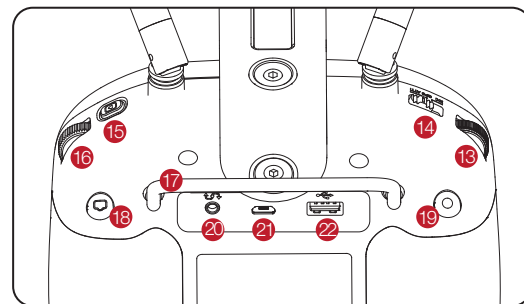
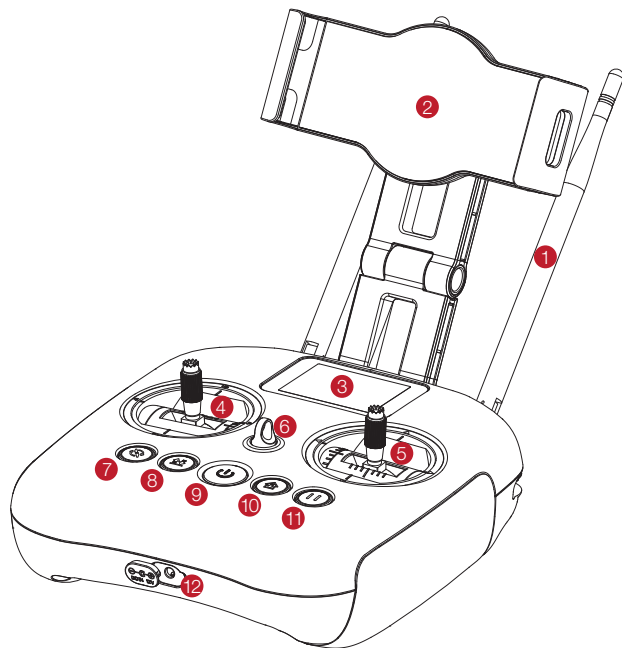
IMPORTANT: Please read all provided instructions carefully before use. Pay extra attention to the safety warnings and precautions. Use this product as instructed to prevent product damage or personal injury. Failure to do so will void the product's warranty.

AIRCRAFT FRONT VIEW W



1. Propeller
2. Motor
3. Front LED Indicator Light
4. Micro-USB Port
5. 3-axis Camera Gimbal
6. Micro-SD Card Slot
7. Camera
8. Front Sticker
9. Rear LED Indicator Light
10. Aircraft Battery
11. Starpoint™ Positioning Module
12. Landing Gear
13. Compass
14. Remote Controller Binding Button

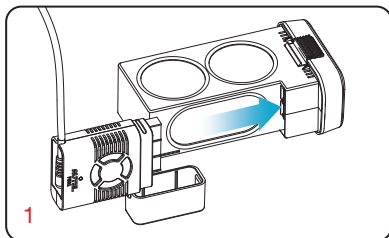
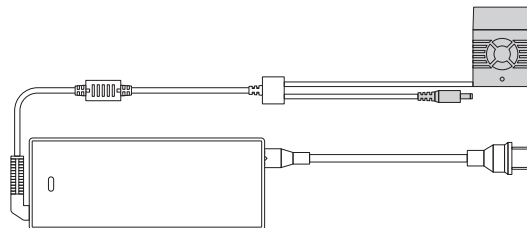
REMOTE CONTROLLER VIEW



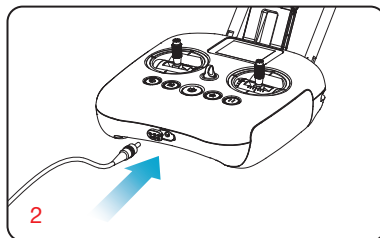
- | | |
|-----------------------------|--------------------------|
| 1. Antenna | 12. Power Port |
| 2. Mobile Device Holder | 13. Gimbal Pitch Dial |
| 3. Flight Information Panel | 14. Flight Mode Switch |
| 4. Left Command Stick | 15. Playback Button |
| 5. Right Command Stick | 16. Camera Settings Dial |
| 6. Strap Hole | 17. Support Stand |
| 7. Motor Starter | 18. Shutter Button |
| 8. Take-off/Landing Button | 19. Record Button |
| 9. Power Button | 20. CAN-Bus Port |
| 10. Go Home Button | 21. Micro-USB Port |
| 11. Pause Button | 22. USB Port |

CHARGING

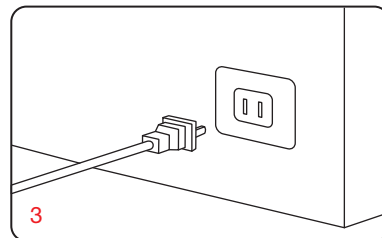
The aircraft battery and the remote controller can be charged simultaneously with the same charger that includes two connectors.



1 Open the cap on the wide square connector and match the interface inside to that of the aircraft battery.



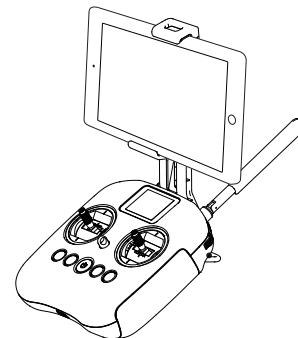
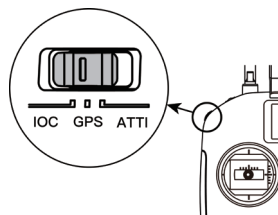
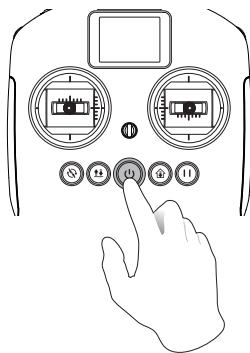
2 Flip over the protector on the Power Port of the remote controller, and plug the small circular connector into the Port.



3 Plug the charger into a power outlet.

PREPARING THE REMOTE CONTROLLER

- Press and hold the Power Button for 2 seconds to power up the remote controller.
- Make sure the Flight Mode Switch on the left side of the remote controller is in the GPS position.
- Clamp the mobile device into the mobile device holder and adjust the holder angle for an optimum view.



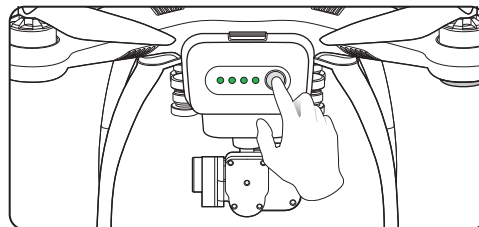
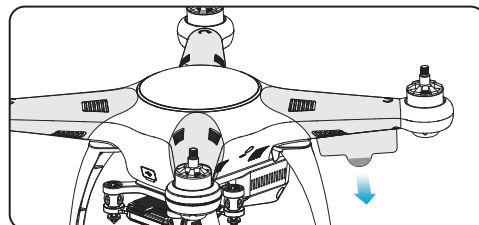
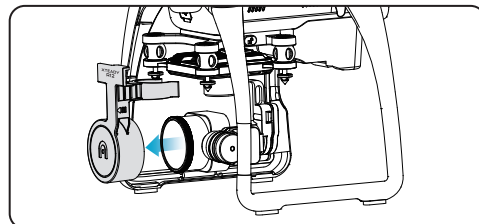
IMPORTANT: For your safety, please turn on the remote controller before turning on the aircraft.

POWERING UP

- Remove the gimbal holder from the gimbal before powering on.
- Remove the aircraft wrapping from the four arms.
- Press and hold the aircraft's Power Button for 3 seconds to turn on the aircraft. The battery level indicator lights will illuminate and indicate the current battery level.

- Solid green light
- ◉ Flashing green light
- No light

	91%~100%		26%~40%
	76%~90%		16%~25%
	66%~75%		1%~15%
	51%~65%		0%
	41%~50%		

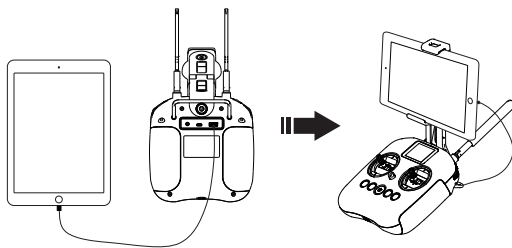


CONNECTING YOUR MOBILE DEVICE

- Connect your mobile device to the aircraft based on your aircraft model.

For X-Star Premium:

Connect your mobile device to the remote controller through a USB cable. The USB port is located on the back of the remote controller.



For X-Star:

Turn on the WiFi connection on your mobile device, select X-Star_XXXXXX from the WiFi list, and enter the default password 99999999.



- When connection has been established between your mobile device and the aircraft, you will see the connection status bar as Connected on Starlink's home page.

NOTE: The WiFi network name (SSID) is labelled on the back side of the remote controller.

FAMILIARIZING WITH THE LED INDICATIONS

- Take a few minutes to familiarize yourself with the LED indications.
- The LED indicator lights will light up when the aircraft is turned on.

Front LEDs:

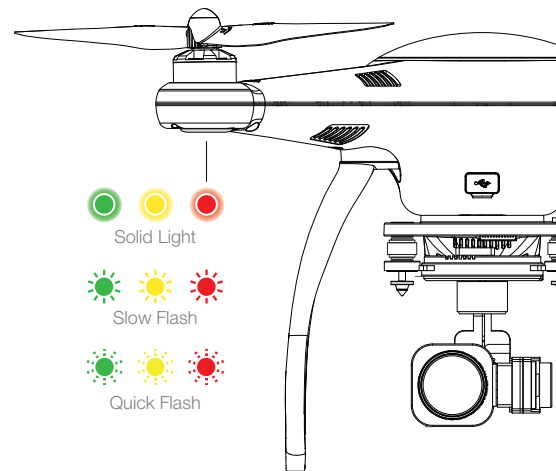
-  The front LED indicators will illuminate solid red light during flight to help you identify the direction of the aircraft's nose.

Rear LEDs:

-  The aircraft is warming up with at least 6 satellites available.
-  The aircraft is warming up with less than 6 satellites available.
-  Either GPS mode or the Starpoint Positioning System is functioning.
-  Neither GPS mode nor the Starpoint Positioning System is functioning.
-  The remote controller signal is lost.
-  The compass is experiencing interference.
-  Low Battery Warning (Battery level is less than 25%).
-  Critical Low Battery Warning (Battery level is less than 12.5%).

Front & Rear LEDs:

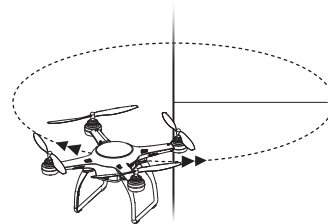
-  Slow flash with one beep when hardware problems are detected.



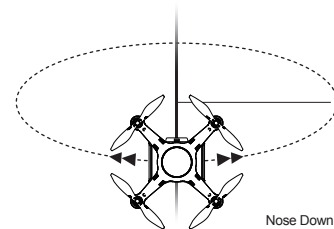
CALIBRATING THE COMPASS

Make sure to calibrate the compass every time you fly in a new location.

- 1 Begin calibration with your app: Settings (⚙️) > Flight Control Settings (🚁) > Compass Calibration, and follow the on-screen instructions that help you monitor the calibration status. When the calibration process has been initiated, the 4 LEDs on the aircraft will flash yellow light.
- 2 Hold the aircraft horizontally by its arms and turn around until the 4 LEDs on the aircraft change into solid green light, which will switch to a flashing pattern later, ready for the next step.
- 3 Hold the aircraft vertically by its arms with the nose facing downwards and turn around until the 4 LEDs on the aircraft turn solid green, indicating that your calibration is successful.



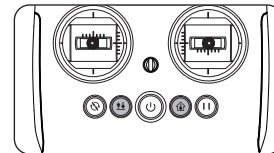
Horizontal Calibration



Nose Down

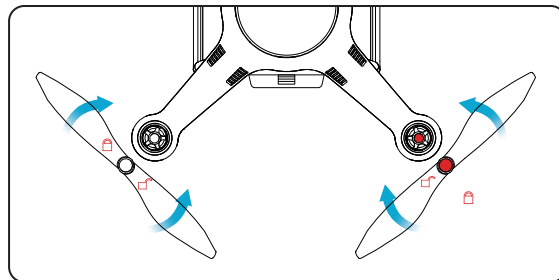
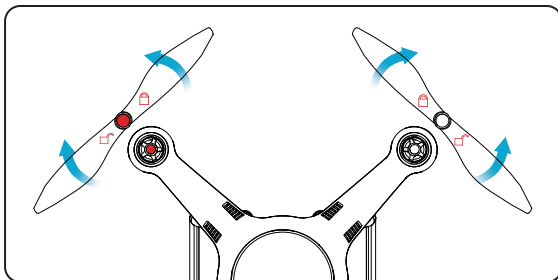
Vertical Calibration

- NOTE:**
- You can also start the calibration process with the remote controller by pressing (🚁) and (🏠) simultaneously for 3 seconds. Then continue to perform steps 2 and 3 to complete the procedure.
 - If the calibration is unsuccessful, the 4 LEDs on the aircraft will illuminate solid yellow light. In this case, repeat the above steps to try again.



INSTALLING THE PROPELLERS

- Match the two propellers with red nuts to the corresponding motors with red paint, and the other two with silver/black nuts to the unpainted motors.
- Fasten the propellers in the direction indicated by the Lock Icon .



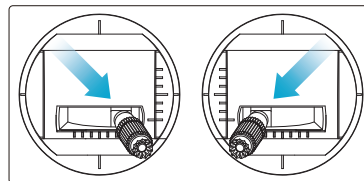
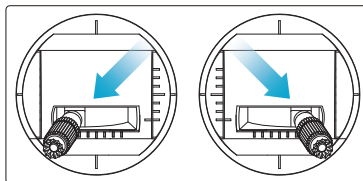
- NOTE:**
- Ensure every propeller is stably mounted and in good condition. Do not use damaged propellers.
 - Remove the propellers when the aircraft is not in use.

MOTOR START-UP AND TAKE-OFF

- Start the motors in one of the following ways:



Motor Starter:
Hold for 2s

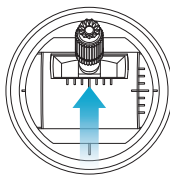


Both Command Sticks:
Hold toe-in or toe-out for 2s

- When the motors start spinning, use one of the following methods to take off the aircraft:



Take off/Landing Button:
Hold for 2s

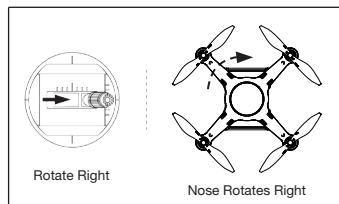
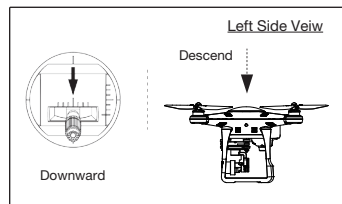
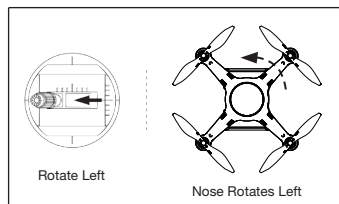
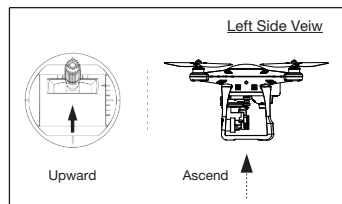


Left Command Stick (Mode 2):
Push upward

NOTE: Before takeoff, place the aircraft on a levelled surface and make sure the rear side of the aircraft is facing you.

UNDERSTANDING COMMAND STICK CONTROLS

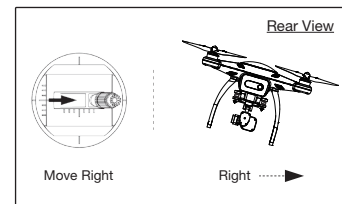
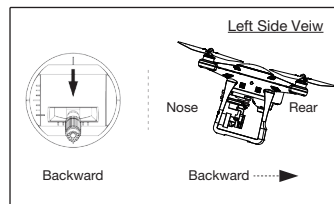
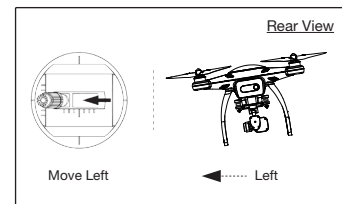
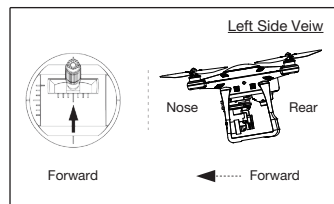
Left Command Stick



Ascend/Descend

Rotate Left/Right

Right Command Stick



Forward/Backward

Move Left/Right

IMPORTANT: For beginners, it is recommended to move the command sticks lightly and slowly to keep the aircraft flying in a controllable speed.

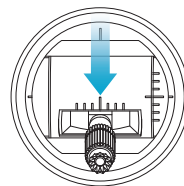
NOTE: The controls illustrated above are set as the default command stick mode (Mode 2). The left command stick controls aircraft ascent/descent and left/right rotation; The right command stick controls aircraft forward/backward and left/right sideways movements.

LANDING AND MOTOR SHUT-DOWN

- Land the aircraft in one of the following ways:

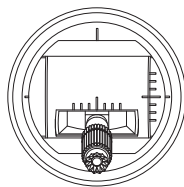


Take off/Landing Button: Hold for 2s
(Auto motor shut-down)

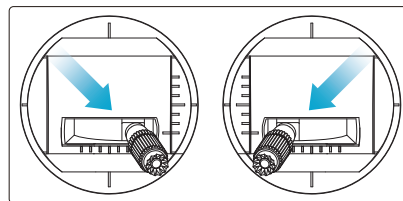


Left Command Stick (Mode 2) :
Push downwards gently

- When the aircraft reaches the ground, use one of the following methods to shut down the motors:



Left Command Stick (Mode 2) :
Push to the bottom and hold for 2s



Both Command Sticks:
Hold toe-in for 2s

IMPORTANT: Make sure to land the aircraft on a levelled surface in an open area.

Aircraft Specifications

Hover Precision	Horizontal: ± 2.5 m; Vertical: ± 1 m;
Max. Yaw Rate	Yaw: 150°/s
Max. Inclination Angle	GPS Mode: 20°; ATTI Mode: 25°
Max. Ascent/Descent Speed	Ascent: 6 m/s; Descent: 3 m/s
Max. Horizontal Speed	15 m/s
Diagonal Wheelbase	352 mm
Propeller Size	9.4"x5.5"
Video Link Frequency	X-Star: 2.412 GHz~2.462 GHz X-Star Premium: 902 MHz~928 MHz
Receiver Frequency	5.745 GHz~5.799 GHz
Flight Modes	GPS, ATTI, IOC
Operating Environment Temperature	-10°C~45°C (14°F~113°F)
Storage Temperature	-20°C~80°C (-4°F~176°F)
Weight (Battery & Propellers included)	1.42 kg

Camera Specifications

Operating Environment Temperature	0°C~40°C (32°F~104°F)
Still Photography Modes	Single shot Burst shooting: 3/5/7 frames Auto Exposure Bracketing (AEB): 3/5 Time-lapse
Video Recording Modes	UHD: 4096x2160p 24/25, 3840x2160p 24/25/30 QHD: 2704x1520p 24/25/30/48/50/60 FHD: 1920x1080p 24/25/30/48/50/60/120 HD: 1280x720p 24/25/30/48/50/60/240 SUPERVIEW: 1920x1080p 24/25/30/48/50/60
Max. Field of View	108°
Supported SD Card Types	Micro-SD card Storage capacity: 4 GB-64 GB Class level: Class 10 or UHS-1 rating required
File Formats	FAT32/exFAT Photo: JPG/DNG/JPG+DNG Video: MOV/MP4

Aircraft Battery Specifications

Battery Type	Rechargeable Li-Po battery
Capacity	4900 mAh
Battery Voltage	14.8 V
Charging Environment Temperature	10°C~45°C (50°F~113°F)
Discharging Environment Temperature	-10°C~45°C (14°F~113°F)
Storage Temperature & Humidity	Temp: 18°C~28°C (64°F~82.4°F); Humidity: 52~78%

Camera Gimbal Specifications

Operating Current	650 mA@12V (Non-video Mode); 760 mA@12V (Video Mode)
Input Voltage	12 V
Operating Temperature	-10°C~50°C
Weight	175 g (Camera incl.)
Dimensions (Damping device excl.)	88 mm x 76.5 mm x 80 mm
Control Accuracy	Pitch: $\pm 0.015^\circ$ Roll: $\pm 0.015^\circ$ Yaw: $\pm 0.015^\circ$
Max. Angular Velocity	Pitch: $\pm 300^\circ/\text{S}$ Yaw: $\pm 360^\circ/\text{S}$
Controllable Range	Pitch: $0^\circ\sim 90^\circ$ Yaw: $\pm 50^\circ$

Remote Controller Specifications

RF Receiver Operating Frequency	5.745 GHz~5.799 GHz
Video Link Frequency	X-Star: 2.412 GHz~2.462 GHz X-Star Premium: 902 MHz~928 MHz
Operating Temperature	-20°C~60°C (-4°F~140°F)
Storage Temperature	Less than 1 month: -10°C~45°C (14°F~113°F) 1~6 months: -10°C~35°C (14°F~95°F)
Communication Distance (Open Area)	X-Star - CE: 500 m; FCC: 1000 m X-Star Premium - FCC: 2000 m
Operating Current/Voltage	X-Star: 750 mA/3.7 V X-Star Premium: 350 mA/3.7 V (App disconnected) 1400 mA/3.7 V (App connected)
Battery	6000 mAh rechargeable Li-Ion Battery
Power Consumption	X-Star: 2.8 W ; X-Star Premium: 5.2 W
Weight (battery included)	X-Star: 830 g ; X-Star Premium: 840 g



WWW.AUTELROBOTICS.COM

© 2016 Autel Robotics Co., Ltd. All Rights Reserved.