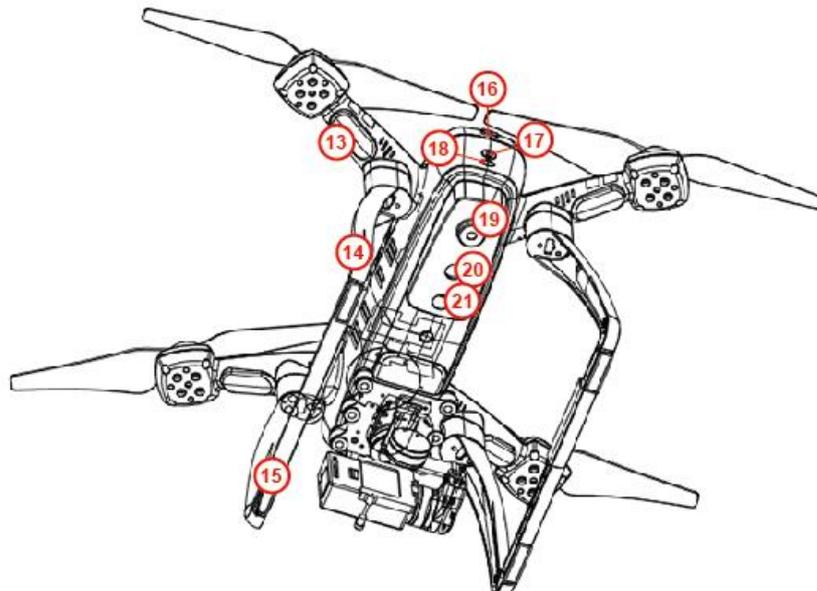
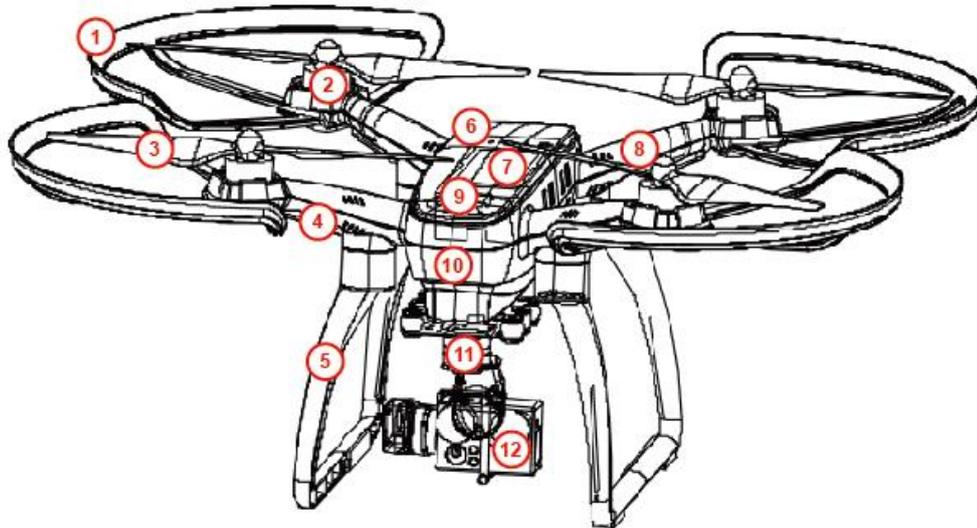


Quick Start Guide of AreoX-X5 V2.0

AreoX-X5 UAV consists of: Drone, Remote Controller, Smart Battery, 3D Gimbal and Sports Camera. With the excellent flight Control System and Image Transmission System, users can enjoy the easy operation, stable flying and photographing in high altitude. You can select the photo or video mode through the App on mobile devices. Vision positioning System, on the lower part of the drone, is used for indoor and outdoor positioning hover when there is no GPS.

X5 Drone:

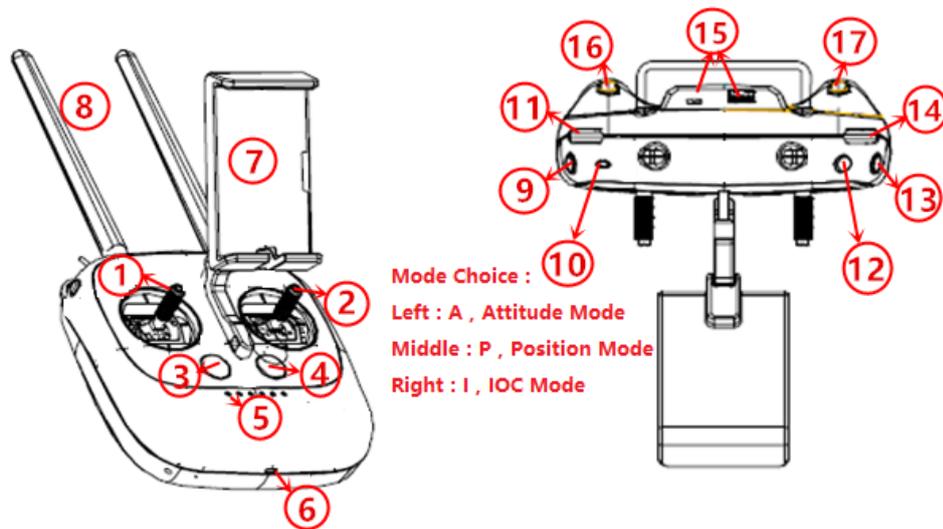


【1】 Propeller Protection Frame (Optional)	【2】 Motor	【3】 Propeller
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【4】 Status Indicator	【5】 Landing leg	【6】 Top Cover
【7】 Battery Compartment	【8】 Drone Shell	【9】 GPS
【10】 USB Interface	【11】 3-axis Gimbal	【12】 Sports Camera
【13】 Status Indicator	【14】 Magnetometer	【15】 Foot Mat
【16】 Switch of Top Cover	【17】 Power Switch	【18】 Tail Light
【19】 【20】 【21】 Vision positioning system		

Areox X5 Remote Controller:

Areox X5 Remote Controller's working frequency is 5.8GHZ. Functional buttons of drone and gimbal operations are consisted. Users can easily finish all kinds of operations while "holding both sticks". Meanwhile, Areox X5 Remote Controller has buttons for taking off/landing, returning home, shooting angle and power indicator lights, providing users with accurate flying guide.



【1】 Throttle &Course Stick	【2】 Rolling & Pitching Stick	【3】 Power Switch
【4】 Return Home Button	【5】 Power indicator	【6】 USB Charging Port
【7】 Bracket for Mobile Device	【8】 Antenna	【9】 Spare Button C1
【10】 Stick for flight mode	【11】 Knob for shooting angle D1	【12】 Spare Button C2
【13】 Taking off Button C3	【14】 Spare knob D2	【15】 Data-communicate interface
【16】 Spare Button C4	【17】 Spare Button C5	

Introduction of remote controller indicator:

Status	Description	Diagram
Power on	Red LED is currently on	
25%>Voltage>0%	N01 white LED blinks	
50%>Voltage>25%	N01&2 white LEDs are currently on	
75%> Voltage >50%	N01&2&3 white LEDs are currently on	
100%>Voltage>75%	All white LEDs are currently on	
Flight Mode	Blue LED is currently on	
Return Home	Blue LED blinks	
Charging	4 white LEDs blink in turns	
Charging completed	Stop blinking in turns	

Preparation before Flying:

A: Open the Package, Check the Drone and Accessories

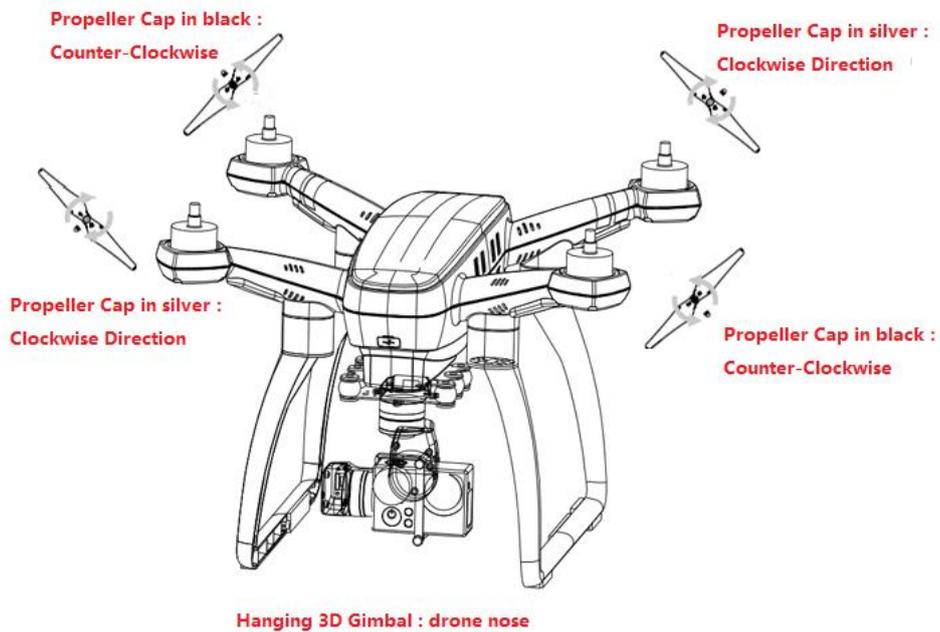
Check the bellowing carefully in the package: drone, remote controller, smart battery, smart battery charger, mounted 3D gimbal and sports camera, propellers, propeller wrench, USB line, installed SD card, Quick Start Guide, frames for propeller protection (optional). Before flying, please read Quick Start Guide of X5 carefully, get familiar with and understand relevant flight knowledge of drone and the safety of flight. For further learning, you can enter our official website (www.areox.com) and download the User Manual of X5 and videos of operation.

B: Install and Remove Propellers

9450 propellers are used for AreoX-X5 and the caps of them are of black and silver, representing the different turning directions.

Color of Propeller Cap	Silver Propeller Cap	Black Propeller Cap
Figure		
Installing Position	Drone nose faces front (camera is installed in the front part of drone), caps of propellers on front left and rear right are silver.	Drone nose faces front (camera is installed in the front part of drone), caps of propellers on front right and rear left are black.
Explanation of Symbols on Propellers	Tighten Propeller: Turn toward this direction and tighten propeller onto motor.	

		Loosen Propeller: Turn toward this direction and loosen propeller off.
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Method of removing propellers: Hold motor with one hand and propeller with another hand, turn propeller according to Loose Propeller direction and then the propeller will be removed. Propeller wrench is available for X5 users. Lock motor outline in wrench opening, and then the propeller can be easily removed.

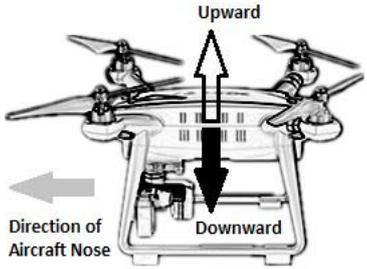
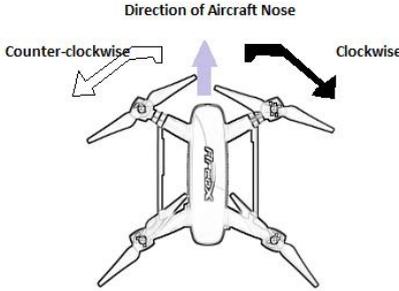
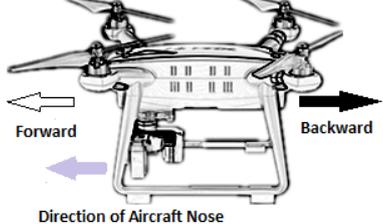
C: Instructions of Remote Controller:

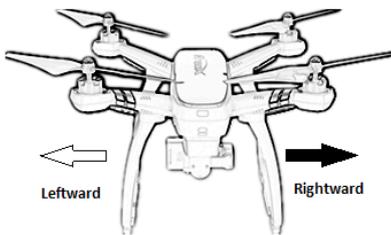
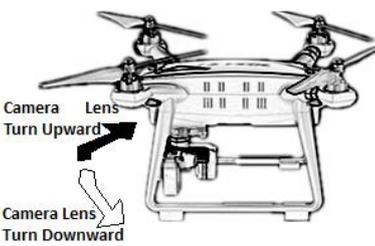
Turn on the power switch and then you can control the drone to fly with the remote controller. For first flight, you should select the Flight Mode. The stick for mode selection is on the top left corner of the X5 Remote controller. From left to right, the mode would be: A mode, P mode and I mode. A mode means the attitude mode, P mode means the positioning mode and I mode is the IOC mode. We suggest the “Position Mode” for new users, where the stick of remote controller is in the middle. When the GPS is in low-grade during the fly between the buildings, we can change to “Attitude Mode” to enjoy the better fight. The two sticks are used to control directions and altitude of the fight when flying.

Notes: For good flying habit, we should power on remote controller and then the drone before each flight. After flying, power off drone and then remote controller.

Introduction of Stick Directions

Remote Controller (American)	Drone (Gray Arrow Shows Direction of Drone Nose)	Operating Method
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		<p>Throttle is used to control rising and landing.</p> <ul style="list-style-type: none"> ➤ Rise: Push the stick upward ➤ Land: Pull the stick downward ➤ Maintain the height: Place the stick in the middle (height is set automatically). <p>Only when you push the stick upward and across the middle can the drone take off and fly up (please push the stick slowly to avoid flying up suddenly and fast).</p>
		<p>Yaw stick is used to control flying directions.</p> <ul style="list-style-type: none"> ➤ Pull the stick leftward, drone turns counter-clockwise. ➤ Pull the stick rightward, drone turns clockwise. ➤ When the stick is in the middle, turning angle speed is zero and drone does not turn. <p>Pulling strength on the stick corresponds with turning angular speed of drone. The stronger pulling strength it is, the faster turning angular speed it will be.</p>
		<p>Pitch stick is used to control forward and backward flying.</p> <ul style="list-style-type: none"> ➤ Push the stick upward, drone tilts and flies forward. ➤ Pull the stick downward, drone tilts and flies backward. ➤ When the stick is in the middle, front and back directions of drone maintain horizontal. ➤ Pulling strength on the stick corresponds with angles of drone's tilting forward and backward, the stronger pulling strength is, the bigger tilting angle (the maximum angle is 25°) and the faster flying speed will be.

		<p>Rolling stick is used to control drone's flying leftward and rightward.</p> <ul style="list-style-type: none"> ➤ Pull the stick leftward, drone tilts and flies leftward. ➤ Pull the stick rightward, drone tilts and flies rightward. ➤ When the stick is in the middle, left and right directions of drone maintain hovering. <p>Pulling strength on the stick corresponds with angles of drone's tilting leftward and rightward, the stronger pulling strength is, the bigger tilting angle (the maximum angle is 25°) and the faster flying speed will be.</p>
		<p>Gimbal knob is used to control pitching angle of gimbal.</p> <ul style="list-style-type: none"> ➤ In clockwise turning, gimbal turns upward. The maximum angle is 45°. ➤ In counter-clockwise turning, gimbal turns downward. The maximum angle is 90°.

D: Smart Battery

Professional smart battery is provided for X5 drone, open battery compartment, put smart battery in corresponding direction, battery level is shown by 4 LED green indicator lights which respectively represents 25%, 50%, 75% and 100%.

Turn on: When battery is off, **Long press switch button for 2s to 10s**, battery will be powered on. 4 LED lights turn green in turn, suggesting successful powering on;

Turn off: When battery is on, **Long press switch button for 2s to 10s**, battery will be turned off. 4 LED lights turn off in turn, indicating successful turning off;

Check: When battery is off, short press and check the level of battery;

Charge: Please use provided professional battery charger of X5 for charging;

Use notes: Please log on our website, download User Manual and read the using notes of battery carefully.

E: Introduction of Flight Modes

AreoX-X5 has three flight modes: Attitude mode, Position mode and IOC mode, mapping the three letters on the remote controller: A, P, I.

Attitude Mode: This mode is only used to assist positioning the height of fly and users need to control the other directions through the remote controller. **We suggest beginners not to use this mode.**

Position Mode: The positioning system is used to assist users to position indoors and

outdoors, enabling users to fly easily. **We suggest beginners to use this mode.**

IOC Mode: It also named the no nose mode. Switching to this mode, flight course of drone will be completely locked. In this mode, do the pitch & roll stick work, which will help users to fly the drone back. **We suggest beginners not to use this mode until fully understanding of this function.**

In addition, the functions, Smart Return Home and locked when landing, are consisted.

Smart Return Home: When there is GPS signal outdoors, drone can memorize the location of taking off, it can automatically return to this location, avoiding accident when it is out of contact, out of control, too far, in low-voltage or in any needs of users.

Locked when landing: When the drone touch the land, the propeller will stop working, which controlled by the flight control system.

Further, buttons for taking off and landing are provided. When you push the button for taking off, the drone will take off at its current location and then hovering in the setting altitude. When pushing the button for landing, the drone will land at the position it recorded before.

Notes: Users are able to control the flight when Smart Return Home System works, except the Smart Return Home when it is out of control.

F: Gimbal, Sports camera and Image Transmission

3-axis gimbal is used for X5 Drones, it supports various types of cameras, such as Gopro, Yi and AreoX sports cameras. Course tracking mode is applied for gimbal. Pitch and roll are locked. Course smoothly turns with direction of drone nose. Pitch angle can be controlled with adjusting knob of gimbal angle on remote controller. Pitch angle of gimbal: downward: -90° , horizontal: 0° , upward: $+45^{\circ}$. Powering on drone, gimbal will be electrified as soon. It will automatically adjust to horizontal position. After adjusting, drone will be ready to fly.

For more detail about sports camera and gimbal, you can check on our website.

Notes: You must not power on the gimbal when the camera is NOT installed, otherwise gimbal will be directly damaged. Only when camera is installed onto gimbal, can gimbal be electrified and work normally.

Image Transmission Connection of Camera:

In order to realize real time image transmission between phone and camera, please turn on camera and its WIFI firstly. Download corresponding APP of sports camera to your phone. Phone system should be Android 4.7 or later, or IOS 7 or later. Scan following two-dimensional code and get downloading address (or search and download Yi Action Camera APP in APP Store). Follow prompts and complete installation, connect phone with camera in APP, then real time image transmission can be realized. Recording and taking pictures can be operated from APP.



Image transmission match should be conducted between phone and drone for first-time connection. Find relay WIFI signal (SSID) sent from drone and camera in WIFI setting of phone, WIFI name normally starts with “YDXJ_” and follows by ‘_08’ or ‘_14’, for example, if WIFI of camera is “YDXJ_2324058”, then “YDXJ_2324058_08” is the WIFI signal hot-spot you need to connect to. Click and connect to “YDXJ_2324058_08”, connecting code is 1234567890. After successfully connecting to relay link (phone matches with relay, connecting once is enough.), go back to phone interface and find camera APP. Click relay link button, no code is needed, camera can be easily connected, real time image transmission and camera control can be realized. Setting button of camera is on upper right corner of APP, set taking pictures and recording of camera according to your needs.

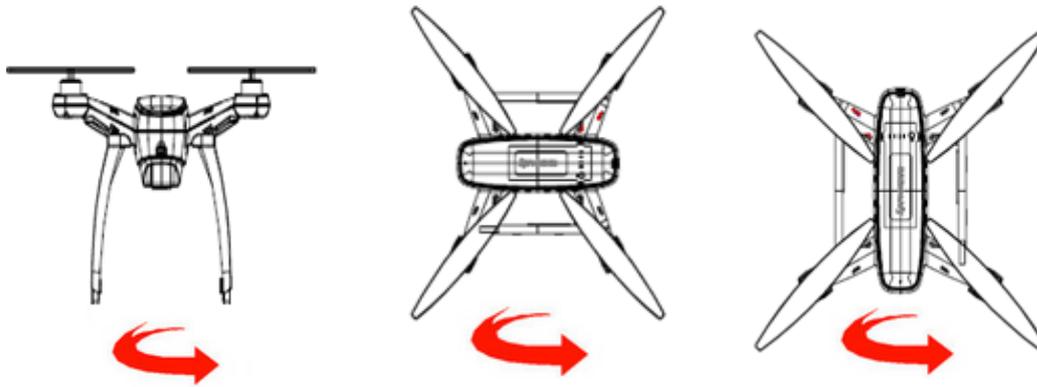
G: Calibrate Compass

We suggest you calibrate compass for the first flight, otherwise system may not be able to work normally and flight safety may be affected. Compass can easily be affected by other electric devices, data may be abnormal, flight may be affected and even flight accident may be caused. Therefore, it is necessary to calibrate compass often to its best working status. Initial calibration has been conducted for AreoX-X5 before it leaves factory. Users can fly directly when GPS signal is fine. If GPS cannot be searched, we suggest you fly after conducting calibration.

Situations When Recalibration is in Need:

- 1). Data of compass is abnormal, red and yellow status indicator lights of drone flash alternatively.
- 2). Flying field is far away from the one on which compass is calibrated last time.
- 3). There are mechanical structural changes in drone.
- 4). Drone cannot hover autonomously under GPS Mode, there is serious deviation, or drone cannot fly straightly.
- 5). Drone circles around during autonomous hovering.

Calibrating Compass Method:



As shown in above Figure,



1). Keep the two sticks in V shape for 1 second.

When front (green)

status indicator lights are currently on and rear (blue) status indicator lights are flickering slowly, calibrate three three-dimensional surfaces of drone (Plane, vertical and horizontal surfaces).

2). Turn each of three surfaces circles slowly and stably, it passes when rear (blue) status light is currently on.

3). If front light (green) and rear light (green) flash slowly (once every second), it means drone fails calibration, repeat above steps till drone passes calibration.

H: Indicator Light of Flying Status

There are 4 status indicator lights of drone on X5. Status indicator light on drone nose can also show direction of drone nose, green light is constantly on when drone is being electrified. Indicator lights on different positions reflect different statuses of Flight Control System as following:

Status of LED Light	Corresponding Status of Drone	Notes
Front course(green)light is on constantly + rear course(blue)light blinks slowly	Calibrate compass, after compass passes calibration, rear course blue light will be on constantly	Can fly in positioning mode
Front course (green) light blinks slowly + rear course (green)light blinks slowly	Compass fails calibration	Recalibrate compass
Front course (green) light is on constantly + rear course (blue) light is on constantly	GPS signal is normal	Can fly normally
Front course(red)light blinks slowly + rear course (red) light	1-grade low-voltage	low-voltage alarm

blinks slowly		
Front course (red) light flashes fast + rear course (red) light blinks fast	2-grade low-voltage	Drone automatically enters return mode when there is signal, users need to land drone in time for indoor flight
Front course (red) light blinks slowly + rear course (green) light blinks slowly	Contact with remote controller is lost	Drone automatically enters return mode when there is signal
Front course (red) light blinks fast + rear course (green) light blinks fast	IMU is abnormal	Cannot fly
Front course (blue) light blinks slowly + rear course (green) light blinks slowly	No GPS signal	Cannot return automatically
Front course (green) light blinks slowly + rear course (red) light blinks slowly	Barometer is abnormal	Cannot fly

Notes: Fast blink once every 0.3 second and slow blink once every second.

I: Check before Flying

You must check before flying for assuring flight safety. Every user should be responsible for his or her flying behavior.

- 1). Check if remote controller, smart flight battery and mobile device are fully charged.
- 2). Check if propellers are correctly installed.
- 3) Check if Micro-SD card is inserted.
- 4). Check if camera and gimbal work normally after turning on power.
- 5). Check if motor works normally after starting up.
- 6). Check if App works normally.

J: Flight Notes

Please read following flight notes before flying in order to assure flight safety:

1). If front and rear red indicator lights of drone flash, it means drone battery is low, the faster flashing frequency is, the lower battery is, for outdoor flight, drone will automatically return under 2-grade low-voltage alarm. For indoor flight, users should return and land drone according to specific situation. Avoid using up battery, or propellers of drone will stop and drone will get damaged.

2). You must NOT no load electrify gimbal, or gimbal can be damaged. You must install camera onto gimbal first and then electrify. Turn off power before disassembling drone, respects camera or other components.

3). Darkness, poor land condition and fast flight speed may affect optical flow positioning effect.

4). Please do not turn stabilization button on remote controller before you actually understand its functions.

5). Once for certain reason, propellers are blocked or cause damage to drone, for safety

consideration, battery will automatically enter protection status, stop power output and maintain the status for 40 seconds. If you want to continue and fly, wait for 40 seconds, then restart battery and fly.

6).Image transmission mean of X5 is WIFI. When WIFI environment is complicated, image transmission may be seriously delayed because of signal interference. It is better to fly in open and wide places.

K: Operation Steps:

1. Put drone on flat and wide land.

2. Turn on remote controller power first and then drone power. Make sure remote controller and drone are electrified normally. Switch button of drone is above the LED light.

Turn on power: **Long press switch button for 2s to 10s**. When LED indicator light is constantly on and motor makes a “Di” noise, it means power is turned on successfully.

Turn off power: **Long press switch button for 2s to 10s**. When indicator light is off, it means power is turned off successfully.

For beginners, we suggest the P mode for flying.

3. For outdoor flight, wait till flight status indicator light: front course green light (drone nose indicator light) + rear course blue light (GPS indicator light) are constantly on, it means GPS search is normal and drone can enter safe flight status. Meanwhile, pull both sticks lower inside and start motor. Once motor is started, flight control system of drone will memorize the current location as return Home position. Start motor as shown in following Figure:



For indoor flight, Vision positioning system will work and assist indoor flight. Flight status indicator light: front course green light + rear course blue light flash slowly. It means there is no GPS signal. Flight Control System will not record return Home location, users should return and land drone safely by themselves.

4. Push forward left accelerator stick slowly and drone will take off smoothly. Then pull left and right accelerator stick and direction stick to control flight status upward, downward, forward, backward, leftward and rightward. During flying, pull both sticks in the middle, drone will hover stably. Try to pull sticks slightly during flight so that drone will fly smoothly.

5. Slowly pull left accelerator stick down, drone will slowly land on flat land.

6. After landing, pull both sticks to the bottom and hold for at least 3 seconds till motor is off. Or pull both sticks to the bottom and pull them outside lower, motor will be turned off. As shown in following Figure:



7. After turning off motor, please power off drone and then remote controller.

L: Specifications:

Items	Details
Dimension	Wheelbase: 350mm Max overall dimension: 589mm (with the propeller installed) Height: 222mm
Weight	1.49 Kg (including one smart battery)
Hover Accuracy	Horizontal: 2m; Vertical: 0.5m
Max Speed	16m/s (at Altitude mode)
Max Control Distance	500m
Gimbal	3-axis Gimbal
Smart Battery	Smart protection of charge; Alarm when low-voltage
Full Charging Time	2h
Flight Time	23min (without gimbal and camera, depends on flying environment and operation)
Max Flight Radius	500m (Default setting is 300m)
Camera	Sports camera, 16 million pixels, 1080P 60FPS
Max Distance of Image Transmission	100m (depends on electromagnetic environment)
Max Limitation in wind	Level 3
Outdoor Positioning System	GPS + GLONASS
Indoor Positioning System	Vision Positioning System

M: Flying Environment Requirements

According to airspace control rules and management rules on UAV stipulated by International Civil Aviation Organization and airspace management institutions of different countries, UAV can only fly in stipulated airspace. For safety consideration, flight restriction function is defaulted on, including height (200m), flying radius (default setting 300m, max is 500m) and special areas flight restrictions, it can help users fly the product more safely and more legally. Under safe flight, flight restriction in special areas, height and distance restrictions all affect flight, flying airspace of drone is the intersection of all restricted airspace. Drone is only restricted on flight height in safe flying status.

Because X5 is a precision electronic remote control drone, we suggest users not fly it in special environments with electromagnetic and signal interference. Users need to pay attention on following flying environments:

1. Do NOT fly it in bad weathers, such like strong wind (4-grade or stronger wind), snow, rain, fog and etc.
2. Choose wide land without tall building around for flying place. A large number of buildings with steel can affect compass' work, block GPS signal, cause poor positioning effect of drone or even not being able to position at all.
3. During flight, please keep drone within your sight and away from obstacles, crowd, water and etc.
4. Please do NOT fly drone at places with high voltage cables, communication base station or launching tower, or remote controller may be interfered.

5. Please do NOT fly drone more than 6000 meters above sea level, because environmental factors may decrease performances of battery and Power System, so flying performance can be affected.

N: Flying Responsibilities Statement:

AreoX is not responsible for physical injuries and property losses (including direct and indirect losses) caused by following reasons during using AreoX-X5:

1) Losses are caused when operator is drinking, taking drug, under drug anesthesia, dizzy, weak, nauseous, under other poor physical or spiritual conditions.

2) Operator subjectively causes physical injure or property losses.

3) Claim for any spiritual damage caused by accident.

4) Operator installs or controls the product not according to correct instructions.

5) Damages caused by poor drone operation caused by modifying or changing accessories or components which are not produced by AreoX.

6) Damages caused by using products which are not produced by AreoX or are copied from AreoX-X5.

7) Damages caused by wrong operation and subjective misjudgment of operator.

8) Poor drone operation caused by natural wear (flying time reaches or exceeds 100 hours) and rot of drone, cable aging and etc.

9) Drone crash caused by not landing when drone makes low voltage alarm.

10) Damages caused by being aware that drone is in abnormal status (for example, there is water, oil or dirt inside of drone, installation is not completed, there are obvious problems with main components, accessories are obviously missing or lost) and flying anyways.

11) Damages caused by flying in areas with magnetic or wireless interference, or in no-fly areas stipulated by governments, or operator's sight is in poor light or blocked by obstacles, or operator's sight is blur or poor, or operator is under other situations which are not suitable for flying.

12) Damages caused by flying in bad weathers, such as rain, wind (above 4-grade), snow, hail and etc.

13) Damages caused by hitting, overturning, fire, explosion, lighting stroke, storm wind, tornado, rainstorm, flood, tsunami, ice collapse, cliff collapse, avalanche, hail disaster, mud-rock flow, landslide, earthquake and etc.

14) Losses caused by operator's infringement of using any data, video or image materials from the product.

15) Damages caused by using improper accessories for battery, such as protection circuit, battery pack and charger.

16) Indirect losses caused by equipment or accessories (including memory card), for example, images or videos cannot be saved.

17) Damages caused by any flying or recording behavior not according to instructions and requirements on environment.

18) Operators must follow all local laws and regulations. They must not fly in strict management and no-fly areas.

19) Damages caused by flying behaviors of children less than 12. Damages caused by flying behaviors of young users between 12 and 18 without adults' supervision and guide.

20) Damages caused in serious flying accidents and operators refuse to provide Log flight data which is saved in memory card of drone.

21) Other losses which are not within AreoX's responsibility.