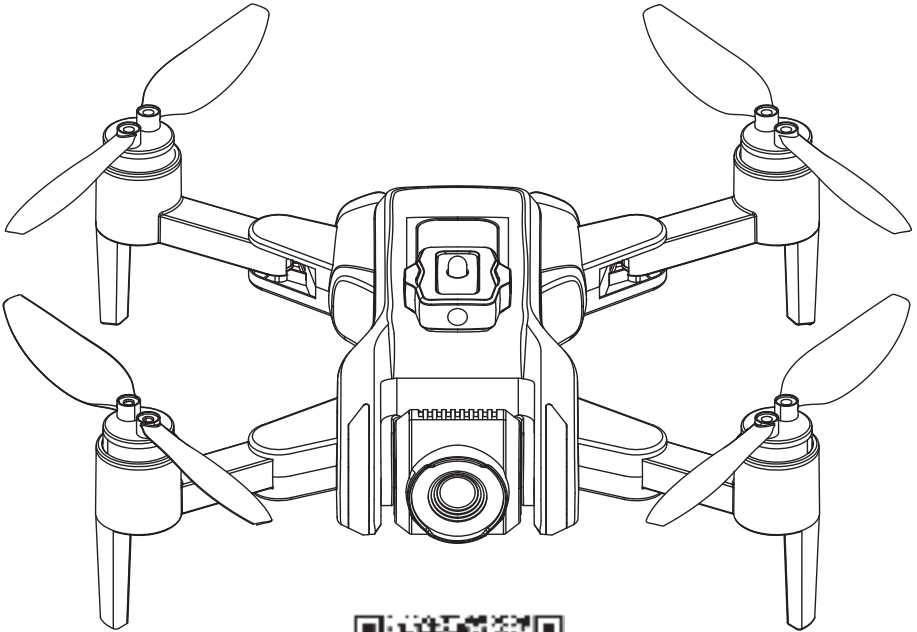


For Ages 12+

# XT808 AERIAL DRONE



Video demonstration  
of drone operation

- In order to ensure the requirements of the electromagnetic environment of aviation radio stations, (prohibited in the range of 10 kilometers on each side of the center line of the airport runway and 20 kilometers at each end of the runway) as well as civil aviation flight paths and routes. The use of various models and drones is prohibited. The use of all types of models and drones is prohibited in the no-fly zones issued by the relevant national authorities.
- In order to ensure the electromagnetic environment of aviation radio stations, it is prohibited to use all kinds of model remote controls within an area of 5000 meters radius from the center of the airport runway. During the period of radio control orders issued by the relevant state authorities, the use of model remote controllers in the area should be stopped as required.

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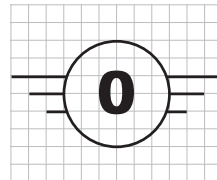
# Preamble

---

Welcome to our drone user manual. This manual has been carefully prepared to ensure that you fully understand the operation of your drone and use it safely and effectively. In order to enhance your flying experience while adhering to all safety regulations, this tutorial is divided into four detailed sections covering everything from basic safety knowledge to flying techniques.

## - XT808 Characteristics and important information about drones

1. Drone weight: 229 grams; maximum drone size: 295\*350\*65mm;  
Drone frequency band: 2420-2460MHz
2. Options: control the drone flight equipment; remote control control
3. Maximum Take-off Mass (MTOM) of UAV: 229g (including battery and paddles)
4. Maximum drone flight speed: 9 meters per second
5. Maximum reachable altitude: 100 meters
6. Drone Category: C0
7. the drone does not have the ability to carry loads with items other than its own paired battery and paddles.
8. Drone Remote Control Equipment and Software: Equipment: Remote Control / Software: LW Pro.
9. Description of Drone and Drone Behavior when Data Link is Lost: When the data link is lost, the drone will land vertically on the ground.
10. Operation Restrictions: Avoid outdoor operation in strong wind or thunderstorm conditions, and ensure night flights are within visual range.
11. This drone is only suitable for operation by individuals aged 12 and above. To ensure flight safety, please avoid flying near airports, highways, train stations, subway stations and densely populated urban areas.



# Drone manual

---

## Part I: Security Guidelines

Before you start using your drone, it is critical to know all safety-related information. This section provides basic safety rules and guidelines to prevent potential injury or damage. Following these basic guidelines will not only ensure the safety of you and those around you, but also protect the drone from damage.

## Part II: Introduction to Product Components

To familiarize you with your drone, this chapter details the names, functions, and operations of the various components. By learning the basics of your product's components, you can quickly diagnose problems as they occur and more effectively utilize your drone's diverse capabilities.

## Part III: Flight Tutorial

This section provides a comprehensive overview of the basic setup steps and operation techniques in helping beginners easily master drone enablement and basic flight maneuvers. Once you have mastered the basic operation of your drone, this section will further guide you in enhancing your flying skills. The content includes detailed flight procedures, operating tips, use of advanced features, and strategies for potential emergencies. Whether you are just starting out or are an experienced pilot, these in-depth tutorials will provide valuable guidance and advice.

- We recommend that you read each section of this manual carefully to fully understand all of the drone's features and safety measures. We want you to find fun and safety when using your drone. Thank you for choosing our products and enjoy your flight!

## Flight environment requirements

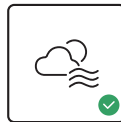
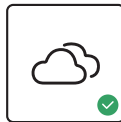
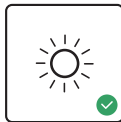
### Indoor flying

Please choose a spacious indoor area and make sure there are no obstacles, people or pets around for flying. Please ensure that babies and young children are kept at a safe distance and avoid any physical contact with the drone to prevent unnecessary accidents.



### Outdoor flying

Please choose a sunny, windless or breezy day. Choose a location that is free of obstacles, crowds, pets, passersby, high walls and trees. Stay especially away from heat sources, electrical wires or electronic power sources to avoid collisions, entanglements, fires, electric shocks and other potentially disastrous accidents.



#### ⚠ Caution:

1. Keep the UAV in line of sight during flight and avoid obstacles such as power lines, trees, crowds, etc.
2. Do not fly in extreme weather conditions, including extreme cold, heat, strong winds and heavy rain.



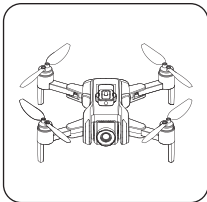
### Pre-flight precautions

1. To avoid damage or loss of the drone due to improper operation, beginners are advised to read the manual and watch the instructional video carefully before flying. Keep the flying distance within 98 feet/30 meters, and only try to fly at high altitude after three days of low altitude flight practice.
2. Gyro calibration must be performed before each takeoff. Otherwise, the drone may fly unstably or even lose control.
3. The maximum connection distance between the remote control and the drone is 400 meters. Do not fly beyond this range as it may cause the drone to crash or be lost due to loss of control (in jamming-free mode).
4. The maximum connection distance (i.e., the data transmission range of the drone) between the mapper and the drone is 150 meters. Exceeding this distance may cause problems receiving photos, videos, etc. (in jamming-free mode).
5. Keep the drone within line-of-sight when flying.
6. When the drone takes off, please keep your distance (it is recommended to keep a distance of more than 6.5 feet / 2 meters) and do not touch the drone during flight to avoid being injured by the fast rotating propellers.

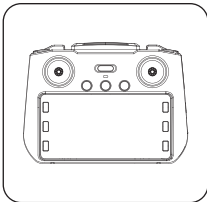


# Drone manual

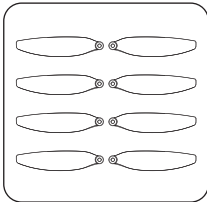
## Accessory List



Airplane (with battery) x 1



Remote control x1



Spare propeller Ax4 Bx4



Screwdriver x 1

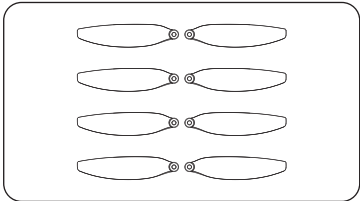


USB charging cable x 1

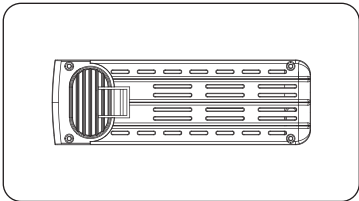
**⚠ Caution:**

If you purchased the dual battery version, the package will include 1 additional spare battery. If you purchased the 3-battery version, the package will include 2 additional spare batteries.

## Other drone accessories available for purchase



Spare propeller Ax4 Bx4



Battery



USB charging cable x 1



Brushless motor

# Preamble

Welcome to buy this product, in order to make it easier and more convenient for you to use this aircraft, please read this manual in detail before operation, and please keep this manual as a reference for future adjustments and maintenance.

## Statement

1. This product is not suitable for people under 12 years old. This product is a toy drone that integrates specialized knowledge of mechanics, electronics, aerodynamics, and high-frequency transmitter, and requires proper assembly and commissioning to avoid accidents. The owner of this product must use a safe way to operate the control; improper operation may cause serious personal injury or property damage.
2. This product is intended for people who have experience in operating model aircraft and are not less than 12 years of age.
3. In case of use, operation, maintenance and other problems. Please contact the local distributor or the relevant personnel of our company.

## Safety Precautions

Keep away from crowds when flying RC model airplanes. Improper assembly or damage to the body, poor electronic control, and unfamiliar operation may lead to damage to the aircraft or personal injury and other unpredictable accidents. The operator must pay attention to the safety of flight and must be aware of his / her responsibility beyond his / her own negligence.

### 1. Keep away from obstacles and crowds

Remotely piloted aircraft flight with uncertain flight speed and state, there are potential dangers, flight must be far away from the crowd, high-rise buildings, high-voltage power lines, etc., and avoid flying in the wind, rain, thunder and lightning and other inclement weather, in order to ensure the safety of the pilot / the surrounding crowd and property.

### 2. Keep away from humid environments

The interior of the aircraft is composed of many sophisticated electronic components and mechanical parts, so it is necessary to prevent the aircraft moisture or water vapor into the body, in order to avoid mechanical and electronic components failure and cause accidents.

### 3. Use this product correctly and repair it with original parts to ensure safe flight. Operate and use the product within the scope of its function, and do not use it for illegal purposes other than those permitted by safety laws and regulations.

### 4. Avoid manipulating alone

Remote Control Aircraft (RC) maneuvering skills are difficult to learn at an early stage, so avoid flying alone and require the guidance of an experienced person.

### 5. Safe operation

Please operate the RC aircraft according to your own condition and flying skills. Fatigue, poor mental health, or improper operation will increase the risk of accidents.

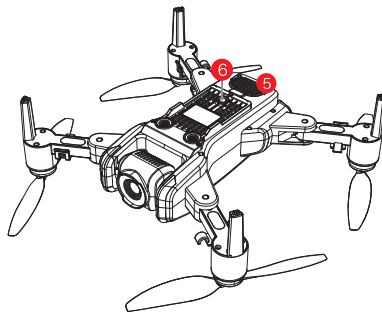
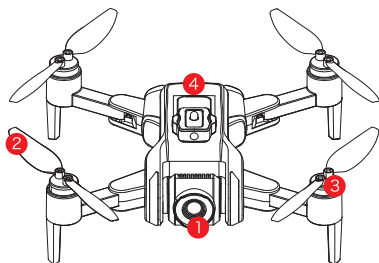
### 6. Keep away from high-speed rotating parts

When the rotor of the aircraft is rotating at high speed, keep the pilot, surrounding people and objects away from the rotating parts to avoid danger and damage.

### 7. Keep away from heat sources

RC aircraft is composed of metal, fiber, plastic, electronic components and other materials, so we should try to stay away from heat sources, to prevent sun exposure, to avoid deformation or even damage caused by heat. Therefore, it should be kept away from heat and sunlight as much as possible to avoid deformation or even damage caused by high temperature.

## 1. Names of flight components

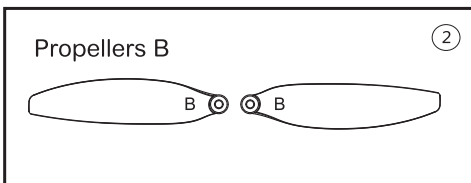
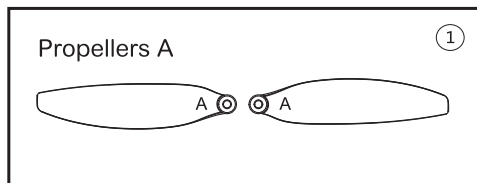


1.Adjusting the lens 2.propellers 3.motor 4.Power Display 5.Li-ion battery 6.Bottom optical flow lens

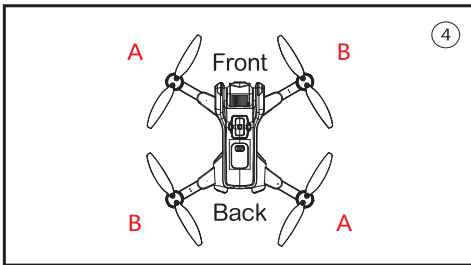
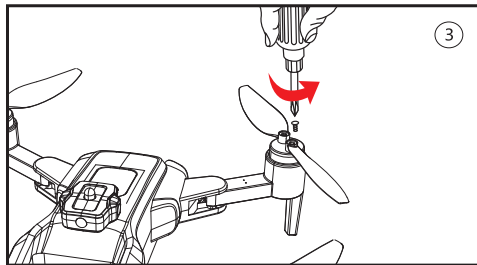
## 2. Propeller installation

The air blades used in this product are divided into A and B air blades, if damaged, please use the spare air blades in the accessory kit for replacement.

**!** (1) When installing for the first time, please distinguish the air blade model carefully.



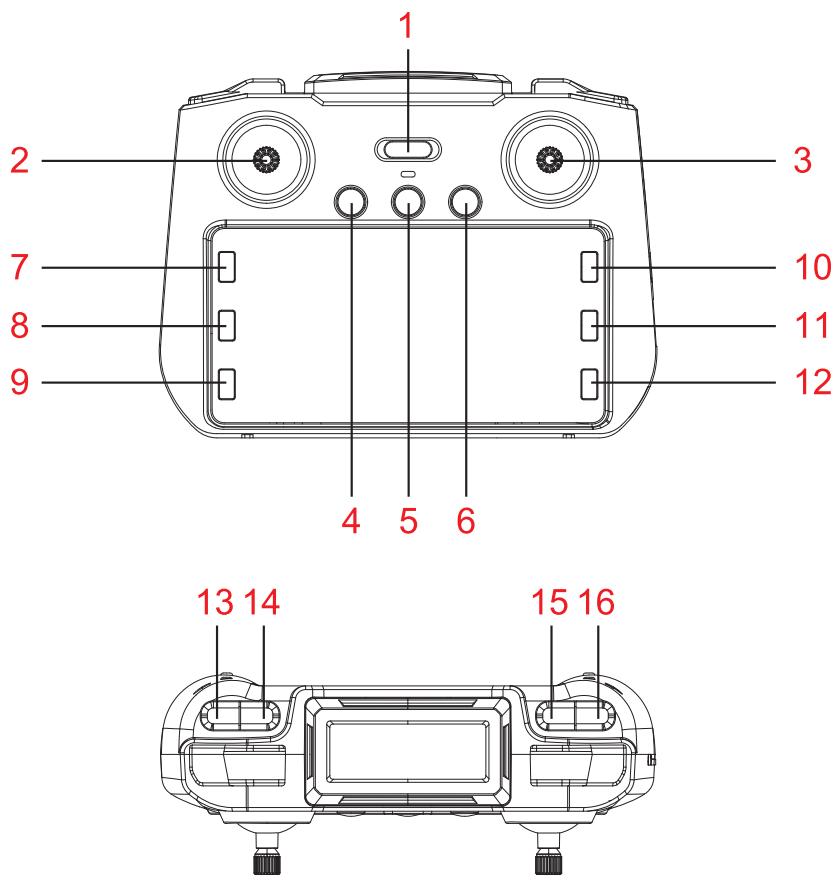
**!** (2) Against Figure 3, use the equipped screwdriver to unscrew the screws of the wind blade to be replaced, remove the original wind blade, install the new wind blade to be installed, and re-lock the screws.



**!** (3) Compare with Fig. 4, please check whether the model of wind blades on the craft is the same as the figure, please install the wind blades in the correct position, otherwise the craft will not fly normally.

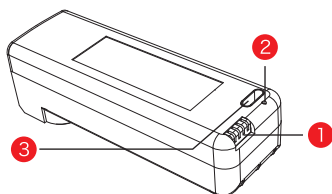
# Remote controls

## 1.Remote control function



- |  |   |                           |   |
|--|---|---------------------------|---|
| 1.Power switch   | 2.Throttle control lever  | 3.Direction control lever | 4.Unlock/one-touch take off / landing                                 |
| 5.Outdoor GPS switch / Indoor light switching                          | 6.Short press gyro calibration / Long press geomagnetic calibration |                           |   |
| 7.Return to  | 8.Menu  | 9.On-Screen Switch        | 10.Turn up when entering the menu / Taking pictures while maneuvering |
| 11.Scroll down when entering the menu / Recording while maneuvering    | 12.Enter  |                           |   |
| 13.Short press for speed switching / Long press for obstacle avoidance | 14.Short press headless / Long press return                         |                           |   |
| 15.Rudder up adjustment  | 16.Rudder down adjustment   |                           |   |

## 4. Lithium batteries for aircraft



1. Battery Connector  
2. Charger Indicator 3. Type-C connector

Made in China  
Sample Name: Lithium-ion Battery  
Model: ZN 802558  
Voltage: 7.4V  
Capacity: 1300mAh  
Power: 9.62 Watt-hours  
Applicant's name: Guangdong Zengneng Electronic Technology Co.,  
Address: NO.101, 1F BUILDING C1-08 ZHONGHAICHENG INNOVATION INDUSTRY PARK,  
NO.7 SHANGGANG AVENUE, BINHAI STREET, HAOJIANG DISTRICT, SHANTOU  
USB input: DC 5V/1.2A

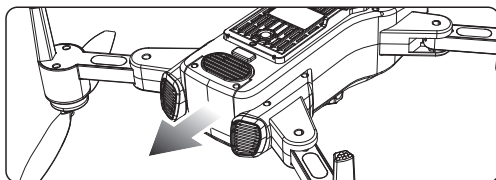
Weight: 67 grams

UKCA Dry chemistry CE

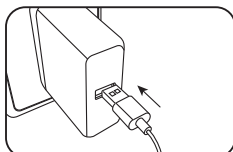
Press and hold the power button for 3 seconds to turn on the power, then press and hold the power button for 3 seconds to turn off the power.

## Li-ion battery

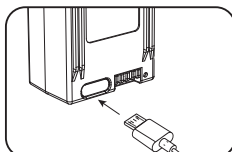
### 1. Charging of aircraft batteries and remote controls



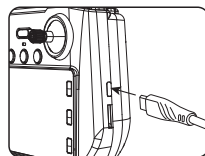
The battery can be removed from the craft by pressing the tab on the battery.



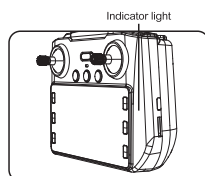
Cell Phone Adapter: 5V, 1A-2A  
(Requires additional purchase)



Charging time: approx. 120 minutes  
(Recommended with original charging cable)



Use the original USB charging cable to connect the remote control and connect to the power supply for charging



The remote control indicator light is red when charging, and off when full.

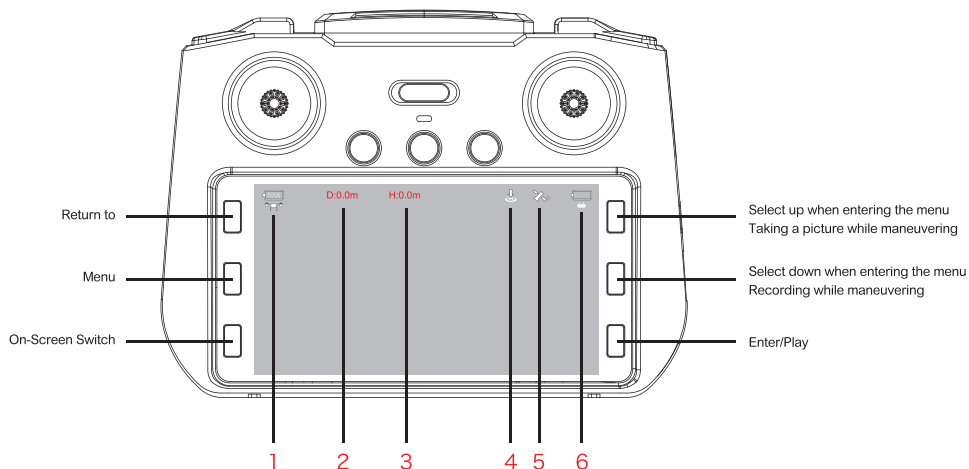
### 2. Lithium battery charging instructions

1. Charging: Battery indicator red light on when charging, battery indicator off when full.
2. You can use mobile power or car power supply for charging. 3.
3. The charging time of the Li-ion battery is about 120 minutes, and the endurance time is about 25 minutes. 4.
4. The remote control uses Li-ion battery, charging time is about 150 minutes, when fully charged, the charging indicator light goes out.

### ⚠ Precautions when charging:

- ※ Do not place the battery in a hot place, such as an open flame or an electric heater, or it may be damaged or explode.
- ※ Do not hit or knock the battery against hard surfaces.
- ※ Do not disassemble the battery.
- ※ Do not immerse the battery in water. Store the battery in a dry place.
- ※ Do not leave the battery while it is being charged.

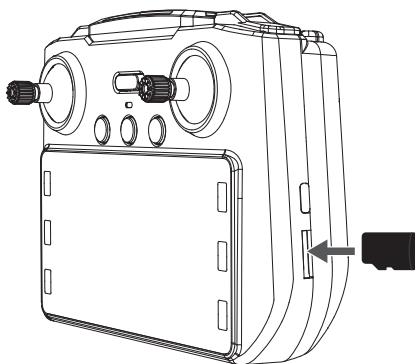
## LCD Function Introduction



Press the menu button to view photos, video files or set up the system, if you are done viewing or setting up, you can press the back button to return to the main page.

1. Drone Power: Displays the current remaining power of the drone.
2. Flight Distance: Displays the distance the drone has flown.
3. Flight Height: Displays the altitude at which the drone is flying.
4. Return: The icon will turn red when you click Return, indicating that you are currently returning.
5. Satellites: Shows the number of satellites currently searched by the drone.
6. Remote Control Power: Displays the current remaining power of the remote control.

## Remote Memory Card Installation



1. The photo and video functions can only be used when the drone is in flight after the screen is turned on.
2. Photos and videos can only be saved after the memory card is inserted in the remote control.

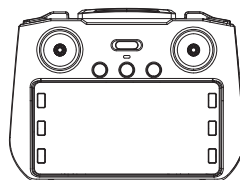
**Note: Insert the memory card first, then turn on the power of the remote control**

# Flight Operations Instruction

Due to the large size of this craft, we only recommend that you use this product outdoors to avoid unnecessary loss or damage.

## Step 1: Turn on the flyer switch and the remote control power indicator flashes.

The remote control will automatically pair the frequency with the aircraft, and when the pairing is completed, the remote control power indicator light is always on.



## Step 2: Power on the craft and place it on a level surface

- At this point the vehicle placed on the horizontal plane automatically enters the frequency pairing state.

Not to the frequency before:

Four arms: yellow light - - Flashing.

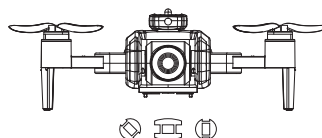
Front Lights: Yellow - - Flashing.

- Remote control pairing success:

Front arm lights: Yellow - - Always on.

Rear arm light: Yellow - - Flashing.

Front lights: Yellow - - Always on.



## Step 3: Horizontal calibration of aircraft

- Short press on the calibration gyro button

- The four arms of the craft are lighted:

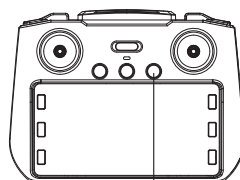
Yellow - - flashing rapidly.

The calibration becomes completed:

Front arm lights: Yellow - - Always on.

Rear arm light: Yellow - - Flashing.

Front lights: Yellow - - Always on.



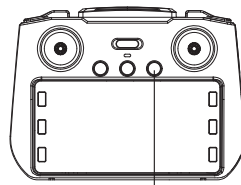
Short press gyro correction



Note: Be sure to place the vehicle on a level surface for horizontal calibration, otherwise the flight attitude will be affected.

#### Step 4: Geomagnetic calibration

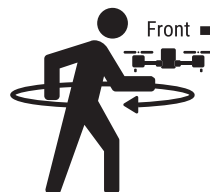
- Long press the geomagnetic correction button to enter the geomagnetic correction mode, Flight four arm lights: Green - - flashing.



Long press geomagnetic correction

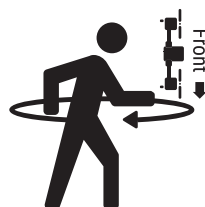
#### Step 5: Geomagnetic Level Calibration - - Part 1

- Hold the craft horizontally and turn it in a complete circle (360°) with your body, and the remote control beeps.
- The four yellow and green arm lights flash alternately.



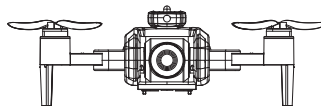
#### Step 6: Geomagnetic Vertical Calibration - - Part 2

- Turn the aircraft nose down and accompany your body in a complete circle (360°), and the remote control beeps.
- Flyer lights change to:  
Front arm lights: Yellow - - Always On.  
Rear arm light: Yellow - - Flashing.  
Front lights: Yellow - - Always on.



#### Step 7: GPS search successful.

- Reposition the craft on an outdoor level surface.
- Waiting for a star search.
- This step takes a few minutes to complete.
- When the star search is complete, the remote control will beep the vehicle light status:  
Arm light: Blue - - Always on



GPS satellite



**Note:** Please search for GPS signal in an open area, GPS signal can not be searched under indoor, tin house and other buildings.



**Attention:** When the drone returns home with low power, the light shows red, and when it can take off with low voltage and no power, the light blinks red.

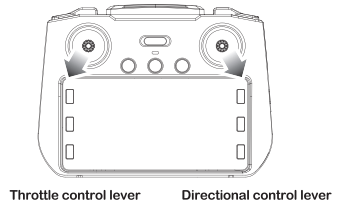


**Turn on Obstacle Avoidance:** the arm light blinks blue.



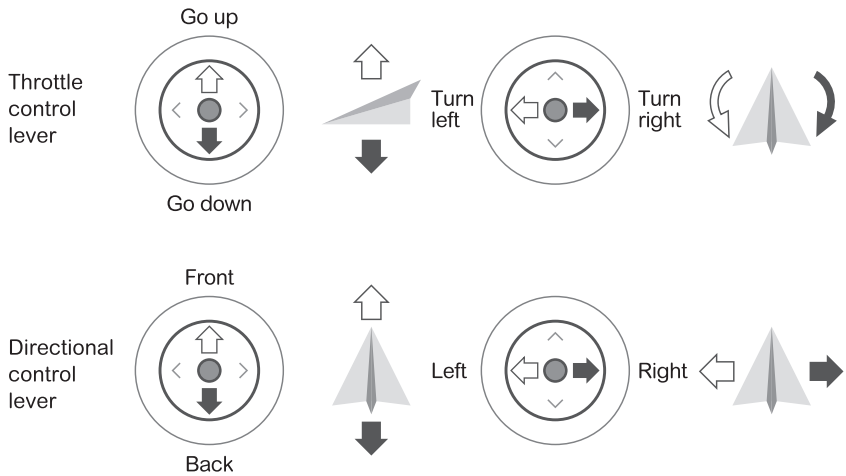
## Step 7: Motor Unlocking

- Push the throttle lever on the remote control, and the steering wheel in the outward eight direction.
- The motor is automatically unlocked and activated, and the throttle stick is pushed directly to take off. ( This function is set before take off. )
- Cancel Motor Unlock: Pulling down on the throttle for 2 seconds will also cancel motor unlock.



**Tip:** When the remote control is low on power, the remote control power icon blinks. In this case, please stop flying as soon as possible and charge the remote control.

## 2. How to operate the remote control



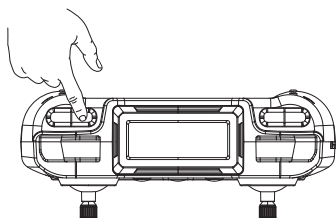
## 1. GPS return


The GPS Return to Home (RTH) function returns the vehicle to the take off point.


This feature is only available in GPS mode.

The aircraft has three types of return to home (RTH): GPS return to home / low power return to home / no signal return to home.

### ① GPS return:



Press the  button on the remote control or mobile app interface, the remote control will start to make a “beep beep” sound. The aircraft will automatically return to the vertical airspace over the takeoff point and then slowly descend to the takeoff point.

Press the  button again to stop the return flight, or you can manually pull down the throttle lever and direction lever to lower the aircraft to a safe area.

### ② Low power return:

Low battery return is triggered when the battery is low.

When Low Power Return is activated, the vehicle will automatically return to the airspace approximately 20 meters away from the operator, who can manually operate and control the vehicle. It is also possible to pull down on the throttle stick to land the vehicle in a safe place. When the power is depleted, the vehicle will automatically return to the take off point.



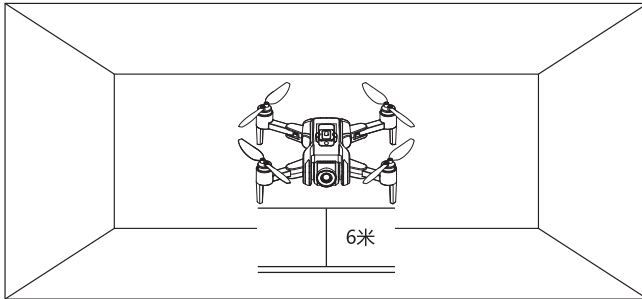
(Note: Please do not push forward on the steering stick when entering low power return, if you do, the return will be disabled and the aircraft will be at risk of loss.)

### ③ Returning without signal.

If the vehicle loses connection with the remote control, the vehicle will automatically enter the return mode. The vehicle will automatically return to the takeoff point, and the vehicle will be paired with the remote control during the return process. If the connection is successful, the operator can control the vehicle again.

## 2. Optical flow localization

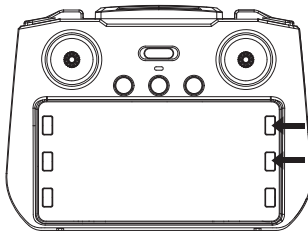
The vehicle is equipped with optical flow positioning, which allows the vehicle to hover stably at low altitude.



### Note:

- (1) Optical flow positioning needs to assist flight in the surrounding environment with sufficient light and rich texture, and can not completely replace the user's judgment, please pay attention to the aircraft conditions and APP prompts, do not overly rely on optical flow positioning.
- (2) Optical flow positioning does not work well or fails in scenes where the ambient light is too bright, too dark, mirrored surfaces, solid-colored smooth floors, water surfaces, reflective surfaces, and sparsely textured surfaces.
- (3) The best working range of optical flow positioning is between 0.5 - 6 meters, beyond this range, the positioning of optical flow positioning may not be effective, please fly with caution.
- (4) Make sure that the optical flow positioning lens is clear and free of stains and obstructions.

## 3. Explanation of camera functions







Take a picture



Videotape

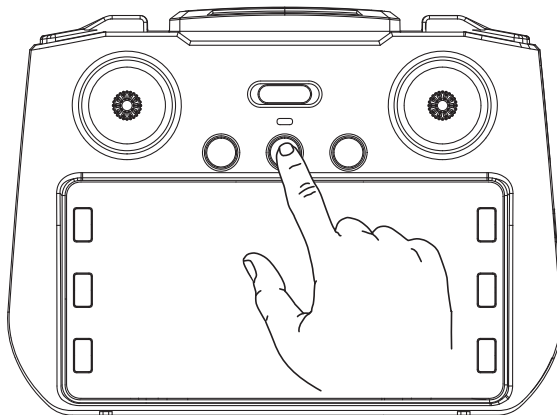
Icons on the APP

- ① Tap the  button on the remote control, or tap the  button on the APP interface, and the word OK appears on the remote control display to indicate that a photo has been taken.
- ② Tap the  button on the remote control, or tap the  button on the APP interface, the timer will appear on the remote control display to indicate that recording is in progress.  
(No photographs can be taken during videotaping)

## 4. With GPS mode/without GPS mode

(Indoor mode needs to be switched to GPS-free mode)

In the GPS signal is relatively poor environment, such as indoor or complex environment, for a long time can not search the GPS satellite signal, if you need to take off, you can long press the GPS button on the remote control to turn off the GPS mode for 3 seconds, the remote control will make a “beep” sound, the aircraft into the indoor mode, you can take off, but all the functions of the GPS is closed.



Press and hold the GPS button for 3 seconds to disable GPS mode.

## GPS Mode

That is, the drone uses GPS module to locate, when the GPS mode is turned on, the drone with the barometer can be fixed point, fixed height precision hovering flight, the difficulty of the flyer to operate the drone is greatly reduced, at the same time, with the ground station system to realize the autonomous route flight, real - time to the ground station to send the aircraft's location. In the case of poor GPS signal the UAV can not realize precise hovering, only provide attitude stabilization, the UAV is equivalent to the attitude mode at this time.

## Attitude Mode

Attitude mode is when there is no GPS positioning, the flight control only provides attitude stabilization, attitude mode is commonly used in some cases where the GPS signal is poor. The UAV mainly uses the IMU inertial measurement unit (barometer, angular velocity meter, accelerometer) to locate its own state. In this case, the UAV will flutter left and right without precise hovering, and the pilot is required to correct the position of the UAV continuously through the remote control. Therefore, the pilot is required to have a high level of skill in operating the drone, and when taking the drone pilot license exam, the over-the-horizon level of flight must be flown in attitude mode. The main purpose is to train drone pilots to have better piloting skills in order to pilot in complex terrain and rescue the aircraft in emergency situations.

## Frequently Asked Questions

### **1. The mobile device and the remote control cannot be connected.**

- ① See if the status of the signal icon changes

### **2. Stuck or prone to uncontrolled disconnections in graphic transmissions.**

- ① Adjust the angle of the antenna to align with the airplane without any obstruction in between.
- ② Change of flying site, do not fly near tall buildings and cell towers.
- ③ Update the latest firmware of the aircraft

### **3. Unstable hovering of the aircraft**

- ① Change the flight site, do not fly near tall buildings and cell towers.
- ② Perform aircraft compass calibration and leveling.
- ③ Determine if the wind is too strong for flight.
- ④ Determine whether the wind blade and arm are deformed.

### **4. Inaccurate GPS accuracy of the aircraft or inability to pass the GPS accuracy test**

- ① Search GPS up to 8 and above in outdoor open area
- ② Close walk around the vehicle
- ③ Replacement of mobile equipment
- ④ Do not test under high floors

### **5. Batteries not charging**

- ① Re-insert the charger and battery
- ② Replace the charger

### **6. Short flight time**

Over-charging and over-discharging of the battery or high temperature environment will easily lead to a reduction in battery life, it is recommended to keep the battery at about 60% of the remaining power, and then fully charged before use.

### **7. Poorly photographed**

- ① Check to make sure the lens protection film is removed.
- ② Use in a well-lit environment

### **8. The lens is hazy and foggy**

- ① If the lens fogs up due to humidity, change the storage location of the aircraft.
- ② Place desiccant in the gimbal cover when storing.

### **9. Loss of pictures or videos taken**

Recorded video should be ended, otherwise the video may be corrupted or lost.