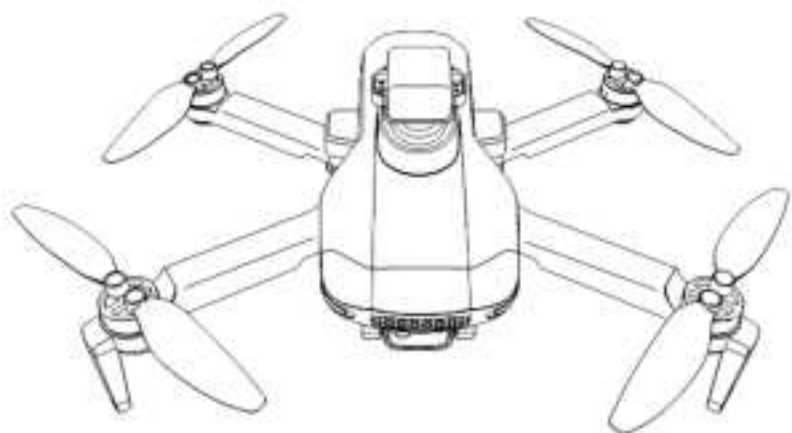


AGES: 14+

# GPS QUADCOPTER AERIAL PHOTOGRAPHY UAV

## OPERATING INSTRUCTIONS



### Safety precaution:

1. In order to ensure the electromagnetic environment of aeronautical radio stations (stations): it is prohibited to use the center of the airport runway as the center of the circle, various model remote controllers are used in a radius of 5000M. During the period when the relevant state departments issue radio control orders, in the area, the model remote control should be stopped as required. Choose to fly in warm, sunny and windless weather, do not fly in overcast. When flying under severe weather conditions such as excessive cold, strong wind, and heavy rain, choose indoor or outdoor open spaces, and fly with people, pets. Keep a safe distance from overhead wires and other obstacles, confirm that no other use the same frequency, and do not let the aircraft out of sight.
2. After the aircraft is started, please do not touch the high-speed rotating part of the aircraft and keep a distance from the high-speed rotating propeller. To avoid the risk of strangulation. (including gears, rotors, etc.)
3. During and after use of the aircraft, the battery and motor will generate high temperature, please do not touch it to avoid the risk of burns.
4. Do not look directly at the beam of the light-emitting diode, so as not to affect the eyes.

### Tips:

It is recommended that beginners practice flying at a low altitude in an open and unmaned place for about 3 days, and then fly to a high altitude after being familiar with flying.

### OBSTACLE AVOIDANCE FUNCTION

2. (Figure 3) When the drone takes off, as shown in the figure, 1.5 meters above the drone is the effective scanning range of the obstacle avoider.
3. (Figure 4) When the drone is flying on the left side, as shown in the figure, the left side of the drone is 20 meters away to avoid obstacles. The effective scanning range of the machine is set, and the scanning path is about 90° between the two arms on the left. Fly backward or fly right to the obstacle avoidance scan range.
4. (Figure 5) The position where the drone stops flying is determined by the flight speed, when the drone is flying at full speed in a low gear. After the drone scans the obstacle at 20 meters, it starts to calculate and sends a stop flight command. The stop position of the drone is determined by the flight speed (the faster the flight speed, the closer the distance between the drone and the obstacle, the opposite light. The slower the speed, the farther the distance between the drone and the obstacle).
5. (Figure 6) When the drone encounters an obstacle and hovers within the scanning range of 20 meters in the flight direction, the drone cannot continue to fly in this direction. Fly in the direction of no obstacles within the meter.
6. When the drone takes off, there are obstacles within 20 meters in the forward direction. The drone cannot fly in this direction, it can be raised to avoid obstacles and continue to fly or fly in other directions without obstacles within 20 meters.
7. If the drone encounters an obstacle during GPS intelligent return, the obstacle avoider will scan the obstacle and rise to a safe height again before returning.

### PRE-FLIGHT PREPARATION

#### Flight environment

Indoor: Wide space away from obstacles, crowds or pets.

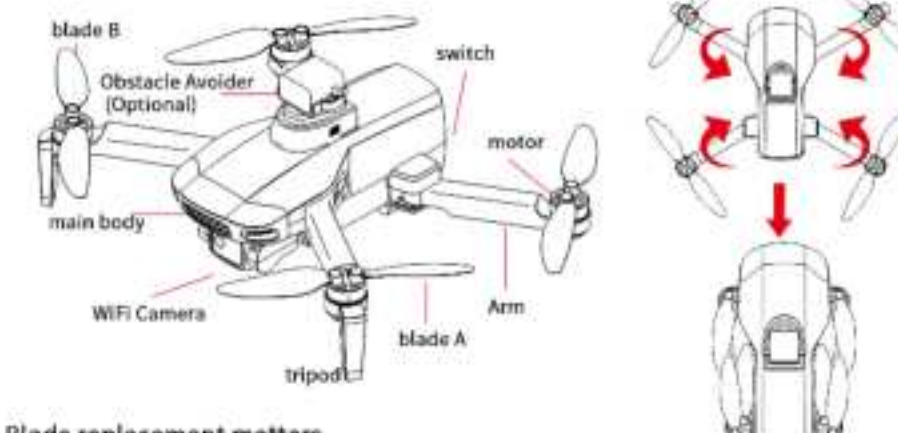


Please keep the drone within sight and away from obstacles, high voltage cables, trees and people during the flight.

Outdoors: sunny and calm weather is preferred.



Do not fly in extreme environments such as heat, cold strong winds or heavy rain.



#### Blade replacement matters

1. The fan blades to be replaced must be replaced according to the relative position on the machine. Fan A needs to be installed at the position of A, and fan B needs to be installed in the B position, if the fan blade is replaced incorrectly, it will not be able to control.
2. When flying, the wind blade A keeps rotating clockwise, and the wind blade B rotates counterclockwise.

#### 1. IMPORTANT NOTES

This product is not a toy. Incorrect use will cause damage, please follow the instructions before using this product. Do not disassemble this product yourself. Otherwise, the manufacturer is not responsible for any damage caused.

#### 2. SAFETY INSTRUCTIONS

Warning: To fly in a safe area or away from others, do not control the aircraft over crowded people. When the remote control aircraft is flying, due to the pilot's operation error or wireless interference, accidents and failures are likely to occur, and it is easy to cause damage or injury to the crowd. Prohibited: When flying especially indoor and outdoor, please keep away from obstacles, this product is suitable for indoor and outdoor flight (wind level no more than 4), please do not fly in no obstacles, crowds and pets, passers-by, such as heating source, heat source, wire or electronic power supply will not be subject to collision landing, entanglement, resulting in fire, electric shock and resulting in loss of life and property.

#### WARN:

It is mainly suitable for people over 14 years old. It is difficult to start learning. It is recommended to ask an experienced pilot to guide.

### Remote control function keys and name description



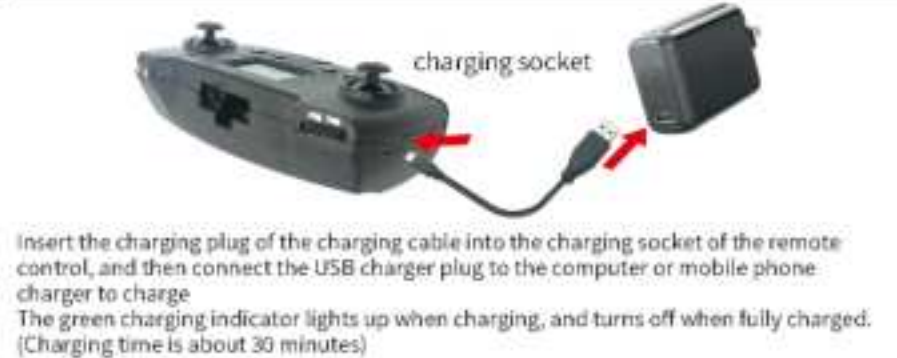
### Instructions for use of remote control handle / mobile phone holder



phone stand:

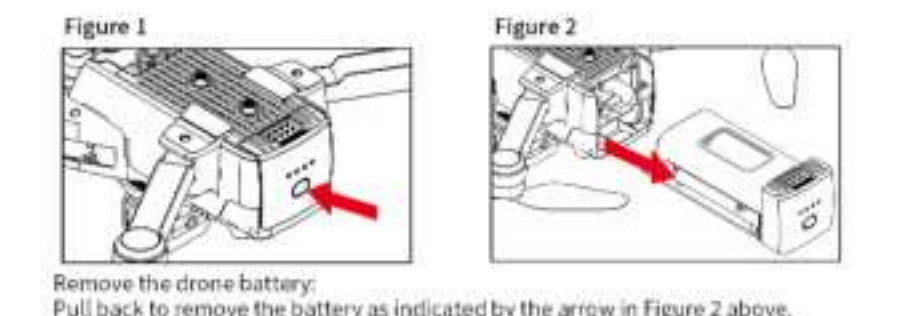
Install the phone holder into the remote control (picture 1), pull up to place the phone (Figure 2). Remote control handle: put the handle at the bottom of the remote control. Pull down from the neutral position and rotate into place.

### Remote control charging instructions



Insert the charging plug of the charging cable into the charging socket of the remote control, and then connect the USB charger plug to the computer or mobile phone charger to charge. The green charging indicator lights up when charging, and turns off when fully charged. (Charging time is about 30 minutes)

### Instructions for Charging UAV Lithium Battery

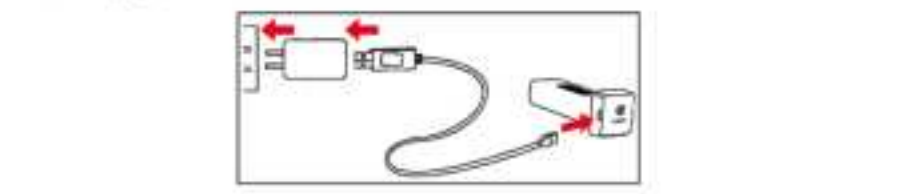


Remove the drone battery: Pull back to remove the battery as indicated by the arrow in Figure 2 above.

Note: If the battery is plugged into the charger, the blue light on the battery is not flashing, and it does not need to be recharged.

#### Battery charging steps:

Insert the USB Android head into the battery, connect the USB charger plug to the computer or mobile phone charger to charge, when charging the blue light on the battery flashes, and the blue light stays on when fully charged. (Charging time is about 200 minutes)

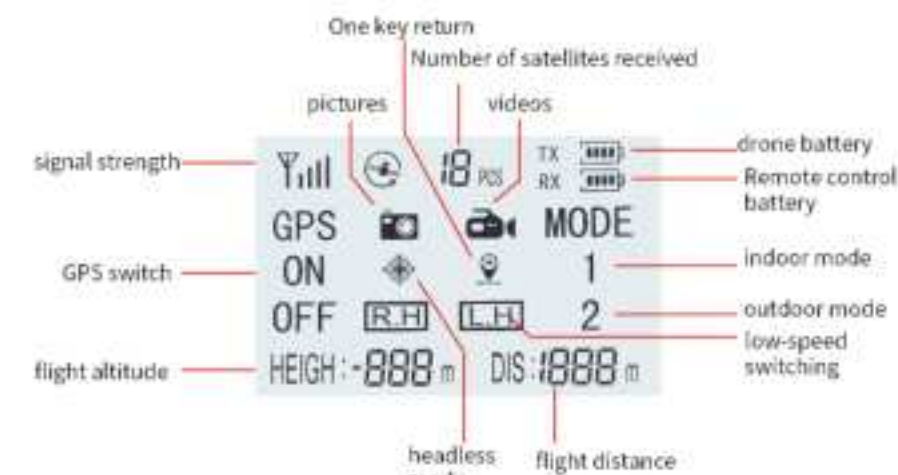


### Introduction of Remote Control Indicators



1. Turn on the red and green lights, and the blue lights flash alternately
2. Only the blue light will be on after the frequency pairing (power indicator light, always on) the aircraft is in Outdoor mode GPS receiving satellite signal status
3. When the green light is on, it means the outdoor mode of the aircraft can fly normally
4. Turn off GPS outdoor mode, the red light is on indicates that the aircraft can fly normally in indoor mode
5. The green light is on during charging, and green when fully charged lights off

### Remote Control Screen Icon Detailed Explanation



Warning: Please understand this diagram carefully before operation, and master the operation of the remote control function of the drone!

### OBSTACLE AVOIDANCE

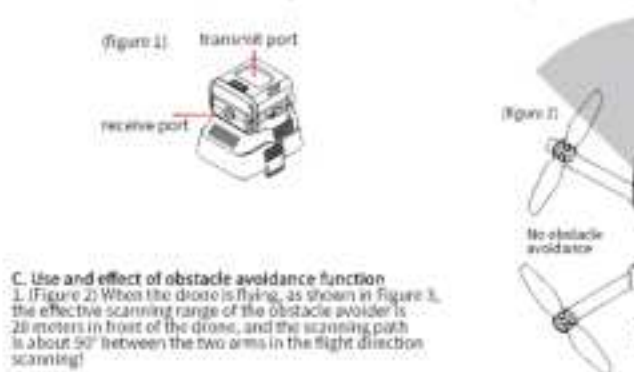
Precautions for installation and use of obstacle avoidance equipment:

1. Take out the cover of the installation position of the obstacle avoidance device
2. Insert the obstacle avoidance device as shown in the picture



### Obstacle avoidance function and working principle

A. The working conditions of the obstacle avoider: Turn on the default low gear mode. The drone has a 260° obstacle avoidance function, such as switching to high-high-speed mode, because the aircraft is flying fast, the system has not received the stop flight command, the drone may have hit an obstacle, so The main-machine obstacle avoidance function is automatically disabled.



### basic flight

#### Basic flight steps:

1. The remote control is paired with the drone, and the drone is initialized.
2. Geomagnetic calibration. (No need to calibrate again at the same location)
3. Connect the mobile phone to WiFi and open the mobile app
4. After the aircraft is calibrated, wait for the stars to be collected, usually 60-80 seconds (more than 9 stars) to unlock the flight.

### Preflight Environmental Requirements

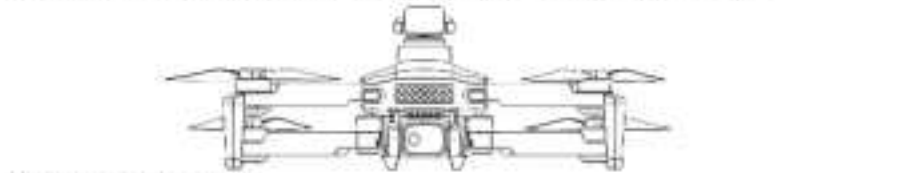
Please choose an open room or an outdoor environment with no rain and snow and wind less than level 4 to fly. Please stay away from crowds, trees, wires, Tall buildings, airports and cell towers, etc.

### Drone Flight Tutorial

#### Indoor Mode Tutorial:

1. UAV pair frequency

Insert the drone battery into the drone battery slot in the correct direction, place the drone on a level ground and turn on the power, then turn it on again. The remote controller is powered on. At this time, the remote controller beeps three times in a row, and the indicator light of the aircraft is always on, indicating that the frequency is successful.



3. Turn on indoor mode: Press and hold the GPS switch button for 3 seconds (Figure 2), the remote control will 'Di', and the indoor mode will be turned on. At this time, the rear light of the drone flashes slowly.



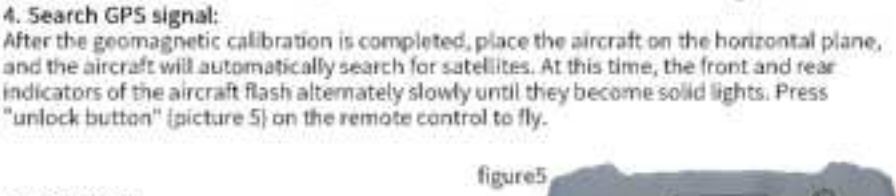
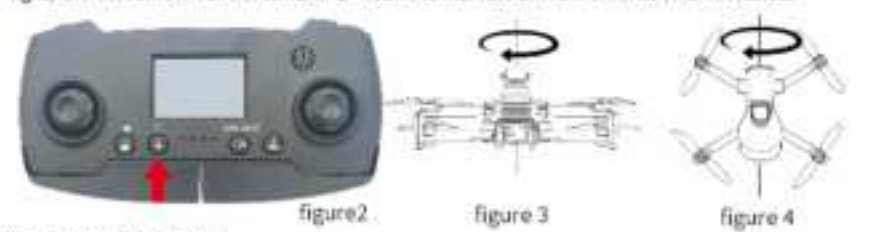
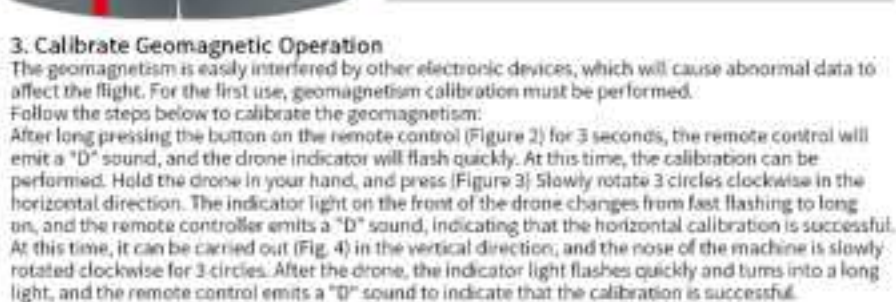
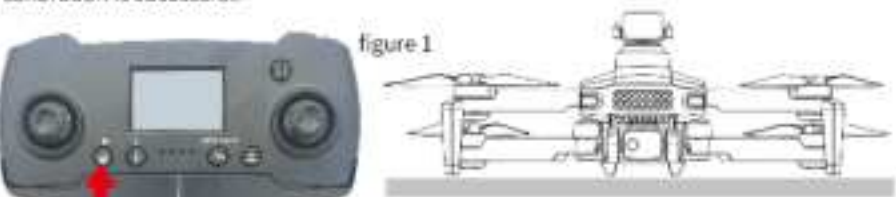
### Outdoor Mode Tutorial

#### 1. UAV pairing

Insert the drone battery into the drone battery slot in the correct direction, place the drone on a level ground and turn on the power, then turn it on again. The remote controller is powered on. At this time, the remote controller beeps three times in a row, and the indicator light of the aircraft is always on, indicating that the frequency is successful.

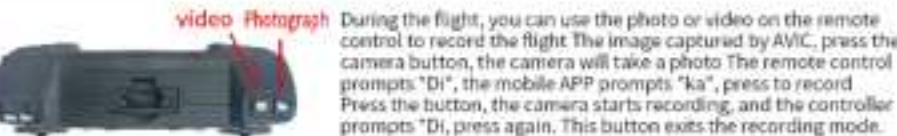
#### 2. Gyro calibration operation

Place the drone in a horizontal position, press and hold the 'gyro calibration' button on the remote control (Figure 1), press and hold for 3 seconds, the drone's light will flash quickly and become long on, and the remote control will make a 'Di' sound, indicating that the calibration is successful.

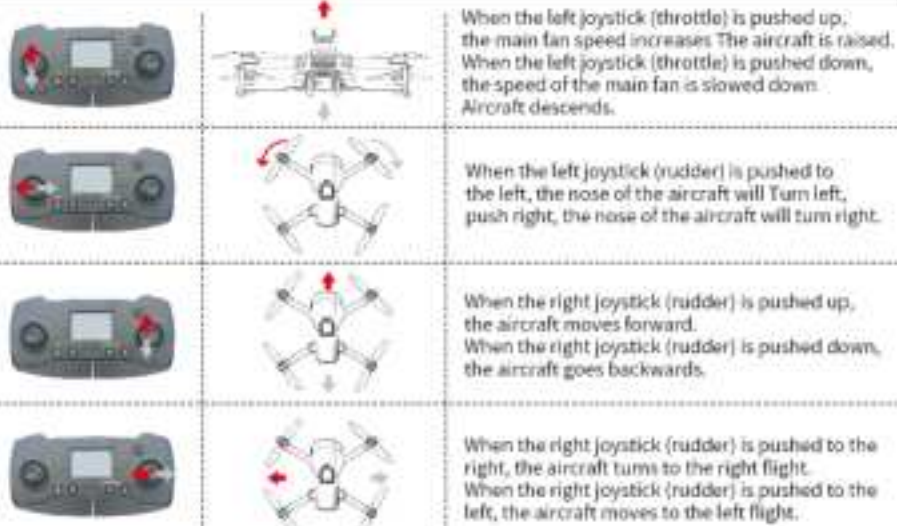


SPECIAL NOTE:  
1. Please ensure that the take-off environment is an outdoor open space, and the satellite signal is greater than 9 satellites before take-off.  
2. The latitude and longitude of each region is different, new customers must calibrate once, such as Guangdong and Beijing The difference is 20 degrees, so the non-calibration performance is that forward and backward are not straight flight, the calibration is in order to measure the height of the barometer accurately.

### Remote control video/picture shooting instructions



### Control method:



#### Warning:

When the drone is at a position of 30m from the ground, the drone will be affected by its own blades and become unstable, which is called "ground effect response". The lower the drone height, the greater the impact of the ground effect response.

### Remote control function operation introduction

#### 1. Unlock the drone (Figure1)

When the drone successfully searches for satellites outdoors, the drone needs to be unlocked to start. Short press the "unlock" button on the remote control (Figure 1). At this time, the four propellers rotate at the same speed at the same time, indicating that the unlocking is successful. When the unlocking is completed, the drone can operate normally.

#### 2. Speed gear adjustment (Figure 2)

The take-off speed gear of the drone is slow by default. When the drone is flying in the air, adjust the speed through the fast and slow speed gear (Figure 2). Briefly press the speed button, the remote control will return to the low gear with a "Di" sound.

#### 3. Camera angle adjustment



#### 4. Headless Mode (Figure4)

Put the drone directly in front of the remote, with the nose of the drone facing forward, calibrate the drone horizontally and take off after the frequency alignment. During the flight, press the key of headless mode (Figure 4) on the remote control. "Di Di Di" three times, it means that the drone enters the headless mode, and the indicator light of the drone flashes slowly at this time. If you want to exit the headless mode, press the button of the headless mode again, and the remote control will make a beep, and the headless mode will be exited. Model.

Please make sure that the operator is facing the same direction from beginning to end, which is the same as the direction when the aircraft takes off. At this time, no matter which direction the aircraft is facing, if the operator moves the direction stick to move back, the aircraft will move back towards the operator.

#### Return:

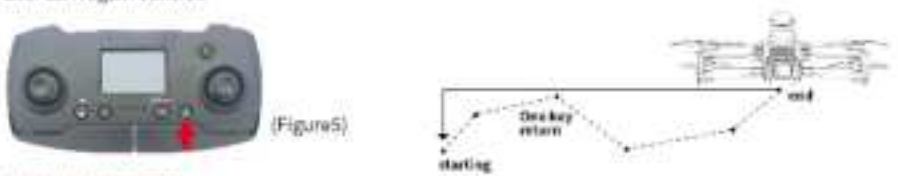
The aircraft has a return-to-home function. If the home point is successfully recorded before takeoff, the communication signal or connection between the remote controller and the aircraft will be lost. When the home button is pressed, the aircraft will automatically return to the home point and land to prevent accidents. The aircraft has three different ways to return to home, namely: one-key return, no signal return, and low battery return.

#### Return point:

During takeoff or flight, when the GPS receives more than 9 stars for the first time, it will be recorded as the current position of the aircraft as the home point.

#### One key return home:

When the GPS signal is good (the number of satellites is greater than 9), you can press the "One Key Return" button on the remote control to start the aircraft to return. The aircraft can avoid obstacles, and then press the "One Key Return" button on the remote control to exit the return home, and the user can regain control.



#### RUNAWAY RETURN:

When the GPS signal is good (the number of satellites is greater than 9), the compass works normally, and the aircraft successfully records the home point, if the remote control signal continues to be interrupted for more than 6 seconds, the flight control system will take over the control of the aircraft and control the aircraft to fly back to the recorded return point. If the remote control signal is restored during the flight, the return-to-home process will continue, but the user can cancel the return-to-home through the remote control return button and regain control of the aircraft.

#### Notes for return flight:

- 1 During the auto-return process, the aircraft cannot avoid obstacles.
- 2 When the GPS signal is poor or the GPS is not working, it is impossible to return home.
- 3 If the aircraft does not receive the satellite display, and the remote control signal continues to be interrupted for more than 5 seconds, the aircraft will not be able to return to the home. Descend until the landing is locked.

### LOW BATTERY RETURN:

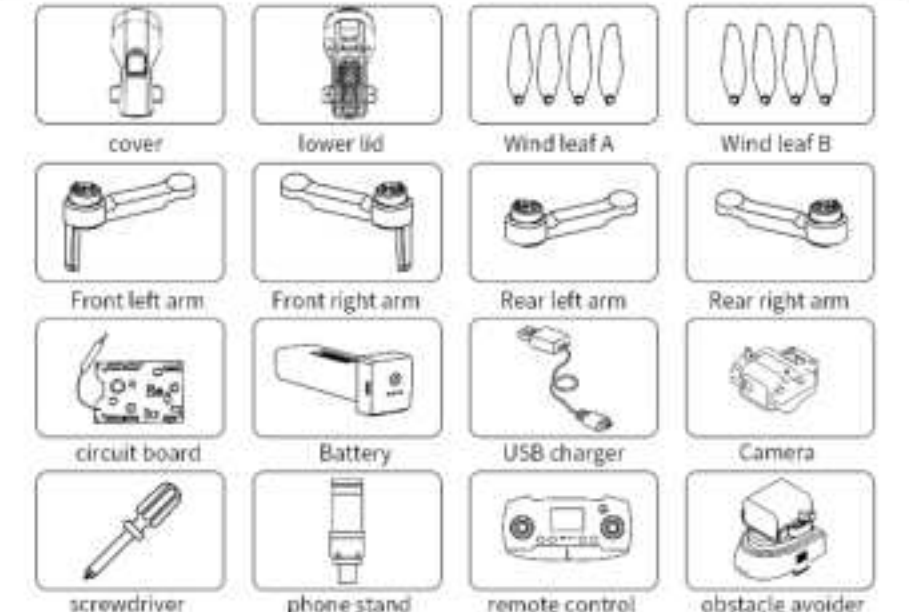
The low-voltage indicator light of the aircraft will flash slowly, and the aircraft will automatically return to 30 meters from the take-off point (the aircraft will return to the take-off point after low power). nearby, the height and distance of the aircraft will be limited to 30 meters) When the voltage of the aircraft is lower than the safe value, it will automatically (and to the home point).

Reminder: The aircraft is in a low power return-to-home state, and the remote control cannot cancel the return-to-home.

### Common problem solving guide:

| QUESTION   | SOLUTION   |
|--|--|
| After the aircraft is powered on, the indicator light keeps flashing rapidly | The aircraft is in the gyroscope detection state, please place the aircraft on a stationary plane or on the ground |
| After the aircraft takes off, Can't hover, leans more to one side            | Place the aircraft on a flat or level ground and re-calibrate the gyroscope  |
| The aircraft vibrates violently  | The fan blades are deformed and need to be replaced  |
| The aircraft cannot be locked, and the indicator light flashes quickly       | The battery voltage of the aircraft is too low, please fully charge the battery                                    |
| Unsteady flight in strong wind   | Wait for less than 4-5 gusts before flying   |
| Can't hover, won't circle  | The geomagnetic calibration is unsuccessful, re-calibrate the geomagnetism   |

### Parts List





## FCC WARNING

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum distance between 20cm the radiator your body: Use only the supplied antenna.