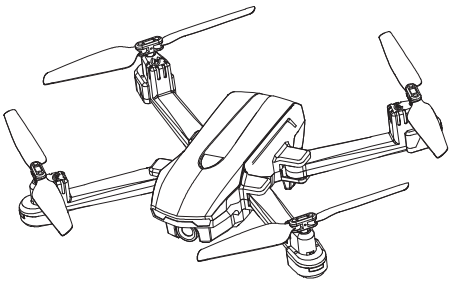
Wowitec

AGES 14+

LARK V3

unique propeller technology with perfect control

INSTRUCTIONS FOR USE



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Disclaimer & Warnings

1. Please read this Disclaimer & Warning and Safety Guidelines carefully before using our product. This product is not recommended for people under the age of 14. By using this product, you hereby agree to this disclaimer and signify that you have read it fully. You agree that you are responsible for your own conduct and any damages caused while using this product, and its consequences. You agree to use this product only for purposes that are proper and in accordance with local regulations,terms, and all applicable policies and guidelines.

2. When using this product, please be sure to strictly abide by the specification requirements and safety guidelines stated in this document. Any personal injury, property damage, legal disputes and all other adverse events caused by the violation of the safety instructions or due to any other factors, will not be WOWITOYS's responsibility.

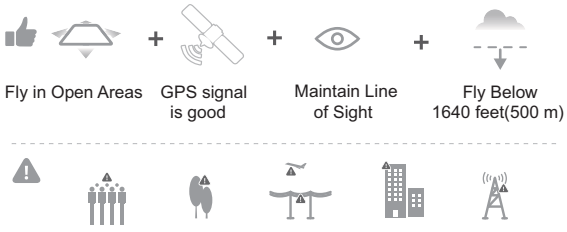
- The drone is designed for 14+
- Adult supervision is always advisable with any form of flying toy
- Always ensure the flying area is free of any obstacles before taking off, and ensure the drone is always flying in excess of 1.5 meters from yourself and others
- Remove all batteries from the drone and controller when not in use
- Never overcharge
- Never leave the batteries unattended during charging
- Never touch the drone motors during or immediately after use, there is risk of burns
- Never touch the propellers when they are in rotating
- If the drone gets damaged, stop using it immediately
- Do not dispose of any parts of the drone or controller as normal rubbish, all parts should be taken to the local recycling centre
- The battery in the drone should never be exposed to any form of high temperature or disposed of in a fire

Safety Guidelines

1.Check Before Use

(1). This product is not a toy, it is a high precision drone that integrates various electronic stability and control mechanisms. Please be sure to setup this drone carefully and correctly to ensure safe, accident-free operation.
(2). Please be sure that the batteries of the drone and controller are clean, undamaged and have enough power.
(3). Please be sure that all the propellers are undamaged and are installed in the right direction.
(4). Please do a thorough check of the product before each use: Check for firmness of the parts, any signs of cracks and wear of the propeller,battery power and effectiveness of the product until the issue has been dealt with.

2.Safe flight Environment



(1). Make sure the surrounding area is free of people, pets or other obstacles before starting to fly the drone.
(2). The drone is designed for indoor and outdoor use. However, it is not recommended to fly the drone inside if there is limited space, or outside if there is any wind.
(3). Keep a safe playing distance from the drone at all times.

3. Use of Battery

(1).Ensure batteries are fitted in the correct direction as shown in the instruction manual.

(2).Avoid short circuits by fitting the batteries incorrectly, and do not crush or squeeze the batteries as this could carry the risk of explosion.

(3).Do not mix new and old batteries as this can lead to a poor performance of the product.

(4).Dispose used batteries carefully.

(5).Keep dead batteries away from heat and fire.

(6).If the device is not going to be used for an extended period of time, remove batteries to prevent potential damage from battery leakage.

(7).It is recommended to only use the USB charging cable that comes with the drone to charge the battery.

(8).Do not connect the battery directly to wall outlets or car cigarette-lighter sockets.

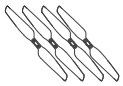
(9).Do not attempt to disassemble or modify the battery in any way.

(10).Do not use the battery if it gives off an odor, generates heat, becomes discolored or is deformed, or appears abnormal in any way. If the battery is in use or being charged, remove it from the device or charger immediately and discontinue use of it.

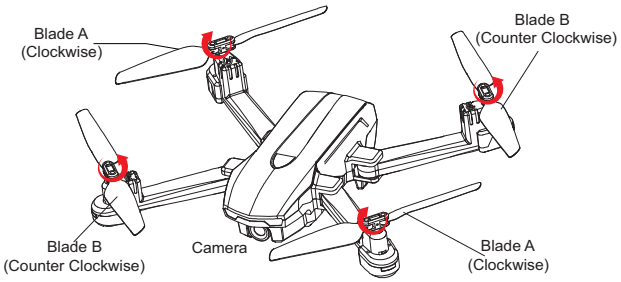
Li-Po Battery Disposal & Recycling

Waste Lithium-polymer batteries must not be placed with household garbage. Please contact local environmental or waste agency or the supplier of the product or the nearest Li-Po battery recycling center.

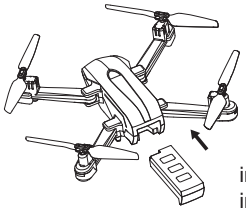
Packing list

 Drone x 1	 Controller x 1	 Battery x 1	 USB charger x 1
 Blade x 4	Screwdriver x 1	 User Manual x 1	

Drone's details



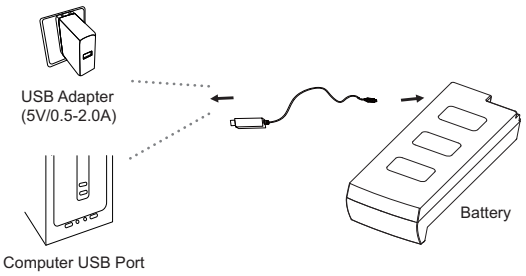
It is crucial that all the blades are installed in the correct position (Pay attention to the letter A or B printed underneath each blade.)



insert the battery
into drone

Charging the drone battery

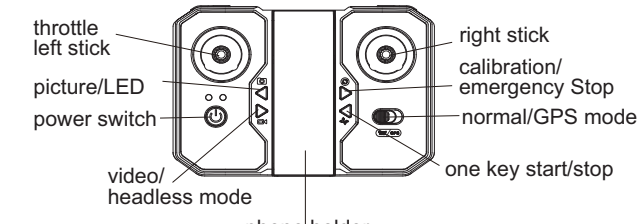
1. Remove the battery from the drone & insert the charging wire into the battery charging slot
2. Connect the USB charger (square socket) to a computer, the USB indicator will glow red
3. The red light will go out when the battery is fully charged

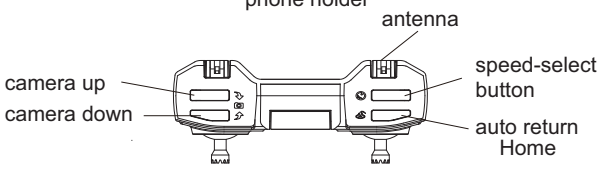


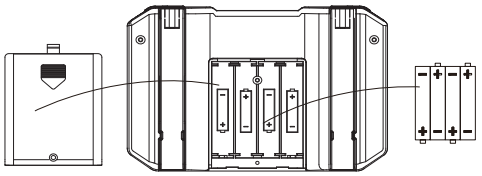
WARNING

Do not leave the battery unattended while charging & only use the supplied battery or plug charger.

Controller functions







4xAAA batteries
(not included)

- Always use alkaline batteries
- Never mix old and new batteries

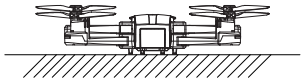
1.Unscrew the battery cover,and insert 4xAAA batteries(not included), make sure to insert them following the correct polarity as shown.
2.Replace the battery cover.

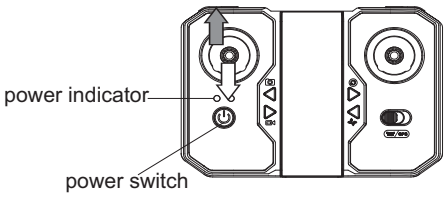
Preparation for Flight

1.Boot up

Turn on the power of the remote control; turn on the power of the drone (long press for 2 seconds to turn on/off)

2.Pair the Drone to the Remote Control





(1).After the remote control and the drone are properly loaded with batteries, place the drone on a horizontal surface and turn on the remote control power switch. At this time, the remote control power indicator flashes red. Turn on the drone, the remote control will beep twice to indicate that it is ready to pair, at this time the front green lights and rear red lights flash.

(2).Slowly push the left lever of the remote control up to the top and then down to the bottom. At this time, the remote control sends out a pairing command and the power indicator light is always green.

(3).Wait for about 10 seconds, the red light on the rear of the drone flash and turn into a steady light, which means that the drone has received the pairing instruction and completed the self-check. The pairing is successful.

3.Download the APP

For smart phone with Android 5.0+; Search and download"WOWI FLY" from Google Play.Or scan the QR code on the left to download.

For smart phone with ios 9.0+; Search and download"WOWI FLY" from App store.Or scan the QR code on the left to download.

Connect to the APP:

(1).Turn on the drone.
(2). Enter the Settings menu of your mobile device.
(3). Activate WIFI connection, search for the drone's wifi network and connect to it.
(4).Click on the ICON to open the interface of the APP, the video image from the drone's camera is displayed on the screen.

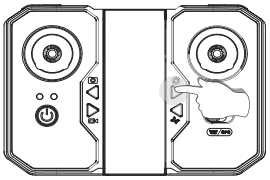
4.Calibration

Gyro Calibration

(1).Place the drone on a horizontal surface, push the left lever of the remote control to the bottom, simultaneously move the right lever of the remote control to the left and right quickly, and release the lever when the front and rear indicators of the drone flash simultaneously (don't move the drone during this process).

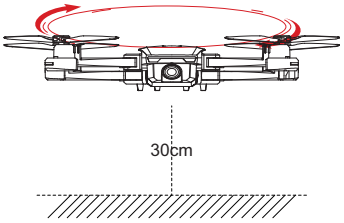
(2).Wait for about 10 seconds, the indicator light on the rear of the drone is always on, indicating that the calibration is successfully completed.

Geomagnetic Calibration

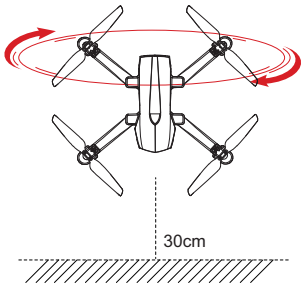


(1).Press the calibration compass button on remote control, wait for the remote control to make a beeping sound and release the button. The front green light of the drone will flash quickly, and the rear red light will be steady on, indicating that the compass calibration is started. (**Please be noted that long pressing this button for 3 seconds will activate emergency stop function**)

(2).Pick up the drone and keep it horizontal, then rotate the drone clockwise at a constant speed (approximately 3-5 rotations), wait until the front green light is on, the rear red light flashes quickly, and the remote control will beep once, indicating the horizontal direction Calibration is completed.



(3).Hold the drone in hand with the nose down, and then slowly rotate the drone clockwise (about 3-5 rotations), wait until the red light on the rear of the drone is off and the remote control beeps twice, indicating that the vertical calibration is completed.

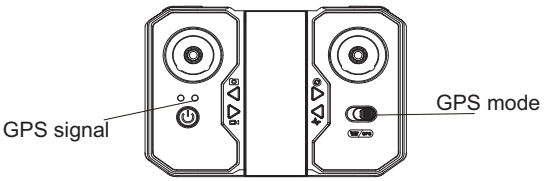


(4).Place the drone horizontally and wait for the red light on the rear of the drone to keep on to indicate that the compass calibration is completed.

GPS search Satellites

Switch the remote control to GPS mode, at this time GPS signal light on the remote control flashes red, The front green light of the drone flashes to indicate that the drone is searching for GPS satellite signals.

When the drone is flying in outdoor GPS mode, it must have enough GPS signal before it can take off. The normal outdoor search time for satellites without interference is about 3-5 minutes. When the front green light of the drone is always on and the GPS signal light of the remote control is always on, it means that at least 8 satellites have been searched before the flight can be carried out.



Flying the Drone

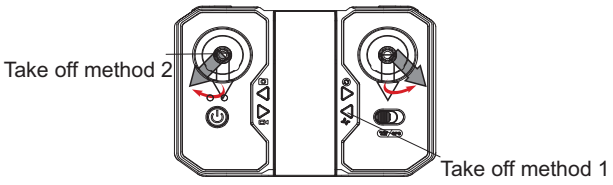
5.Taking-off and landing methods

Taking-off method 1

(1) Press and hold the one key start/stop button for 1 second, the drone will automatically take off at an altitude of about 1.2 meter.

Taking-off method 2

(2) Manual take-off: pull the left and right levers at the same time (as shown in the figure), and then push the left throttle lever upwards to take-off.

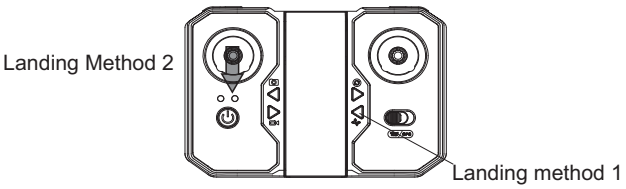


Landing method 1

Press and hold the one key start/stop button for 1 second, and the drone will land on its own.

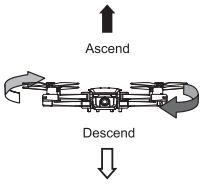
Landing method 2

Pull the left throttle lever of the remote control to the bottom and the drone will land by itself.

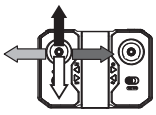


6.Drone Operations

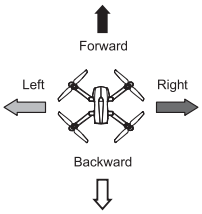
(1). Ascend / descend / turn left / turn right



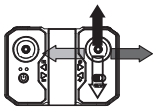
Use “the left lever” to control the altitude & rotation during flight.



(2) Forward / Backward / Leftward / Rightward



Use “the right lever” to control forward, backward,left & right movement during flight.

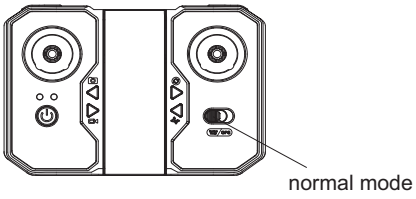


7.Indoor Flight Normal Mode(Non-GPS)

(1).Place the drone on an open horizontal surface to pair the remote control to the drone.

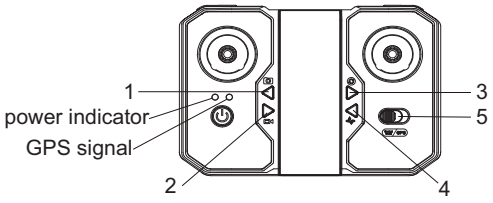
(2).Select normal mode on remote control. (as shown in the figure).

(3).The drone is ready to take off and can be operated by the remote control.



DO NOT switch between normal mode/GPS mode during flight. Such operation will lead to flight anomalies of the drone; failure of GPS positioning; deviation of reverse flight and other serious faults.

Features



1.To take a photo:

Press once, take one picture.
Long press the camera button to turn on/off the LED light

2.To record a video:

Press once to start the video mode, press one time again to stop the video mode.
(Remark: because the drone comes with a wifi camera, it can only take pictures or videos after connected with mobile phone. Since the wifi board is built with a memory card slot, so the pictures and videos can be stored in both mobile phone and memory card inserted in the card slot.)

To activate headless mode, long press the video button & the drone will fly in the desired selected direction, regardless of the direction the drone is facing.Long press the video button again to exit the headless mode.

3.Geomagnetic Calibration/Emergency Stop

Please refer to the description of this function on page 9.

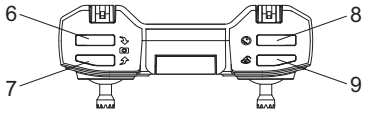
Note: When the drone is flying within 3 meters, long press this button is to activate Emergency Stop function, the drone will stop flying immediately and the motors will stop working!

4.one key start/stop

Long press the "one key start/stop" button, hear a short "beep", the drone will take off slowly and hover at an altitude of about 1.2 meters.

5.Normal/GPS mode

After the drone is paired sucessfully and started to fly, press the GPS mode button, the drone will fly in the GPS mode.
Press the Normal Mode Button, the drone will fly in the normal mode, no GPS function



6.Camera up

7.Camera down

8.Speed-select button

Two speeds for the drone, fast and slow.

9.Auto return home

When the drone is flying in the GPS mode, press the return button for 2 to 3 seconds, the drone will return to the position where GPS mode started.

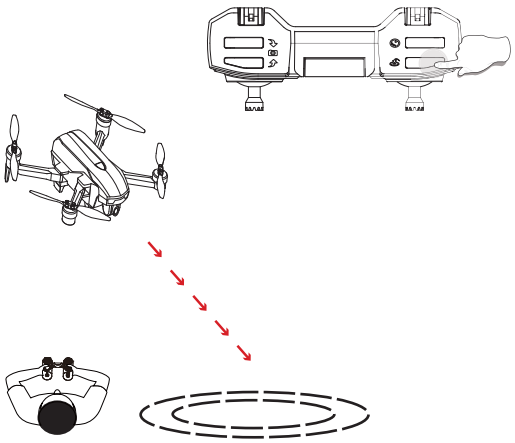
Auto return home:

When the drone flies too far in GPS mode, users can't tell the directions of the drone, then users can operate it in below 2 ways to fly back the drone to the takeoff place:

1. Long press the auto return home button for 2-3 seconds, the drone will fly back to the takeoff place automatically;

2. Directly switch off the power of the remote control, the drone will return to the takeoff place.

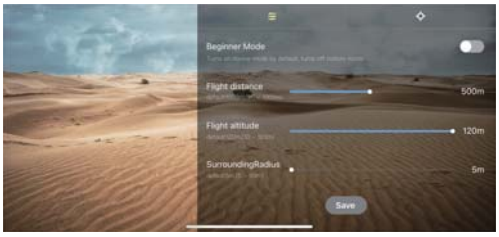
Remark: When the drone is out of the range of the remote control, the drone will fly back to the takeoff place automatically.



WOWIFLY APP

1.APP Interface

1.Return home
2.Altitude Mode
3.Flight record
4.GPS signal
5.Controller signal
6.Drone Power
7.Show/Hide set up menu
8.Hide
9.3D view
10.Reverse lens
11.V-Sign
12.Waypoint flight
13.Follow me
14.Surround flight
15.Add music
16.One key start
17.One key stop
18.Automatic return
19.Photo/Video
20.Shutter
21.Replay
22.Map
23.Distance
24.Filter
25.Zoom



2. Smart Flight Mode

Surround Mode:

Tap the icon  to enter the surround mode (surround flight)

Under normal flight conditions (flight altitude more than 5 meters), GPS signal is more than or equal to 8 satellites, the drone will orbit clockwise defaulting to the current position as the center of the orbit, with a radius of 10 meters, and a speed of 3 meters per second.

Follow-me Mode:

Tap the icon  to activate follow-me flight mode.

Normal flight altitude is above 5 meters, GPS signal is more than or equal to 8 satellites, the drone will follow the mobile phone to move position.

Waypoint Flight Mode:

Tap the icon  to activate the waypoint flight mode.

Set multiple location points on the map, and the drone will fly in the order of the set location points. A total of 1-15 points can be set. The serial number of each point will be marked on the map.

Auto Return Home

1.One-key Return Home

Remote control: Press and hold the auto-return button for 3-5 seconds or tap the return home icon on the APP to start one-key return, the remote control will emit two beeps to indicate that the return home function is activated, and the drone will automatically fly back to the vicinity of the take-off point.

To cancel the one-key return home process: Long press the return button and the remote control will beep once or tap the icon X to exit the return to home process.

2. Smart Low Battery Return Home

1.When the drone flies with low-power, the remote control will always alarm. In GPS mode, the drone will return by itself to within 20 meters of the takeoff point. The drone can fly for about 5 minutes under low power.

2.When the drone does not have enough battery power to fly, the remote control will alarm rapidly all the time. At the same time, the drone will automatically return.

3. Return upon out of Control

If the drone and the remote control lose connection, the drone will automatically enter the return home mode. The drone will automatically return and land on the ground. If the drone and the remote control get connected again during the return process, the drone will hover and user can re-control the drone by the remote control.

Note: This drone does not have automatic obstacle avoidance function. If the drone hits a building or other obstacles on its way back home, it will crash.

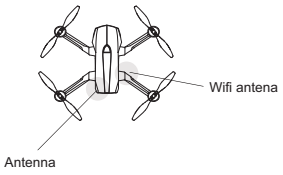
Note: The drone can return home only when it is in GPS mode and searched for enough satellites outdoors. Return home cannot be achieved in indoor mode.

Optimal communication range of remote control

Since the transmitter module of the drone will have different interferences due to different site environmental conditions, the maximum flight distance of the drone under normal condition is 1000m. When the drone is flying in GPS mode, if the drone signal encounters interference (user moves the remote control position, etc.),the drone will automatically turn back when the signal is bad, andwill not turn back automatically until the drone signal is good.

1.Please search for GPS signals in an open area, do not block the GPS receiving antenna.

2.Before flying, flip the remote control antenna out to enhance the signal.

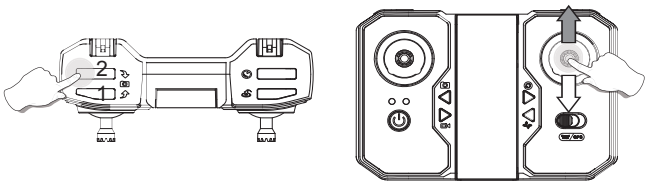


The direction of control when the drone is paired.

Don't turn your direction

Left/right hand throttle switch

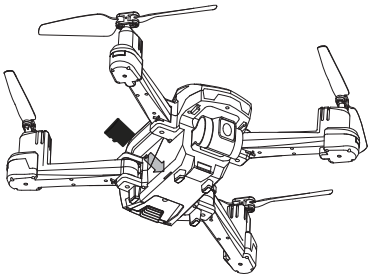
This product defaults to the left-hand throttle control. User can switch the left/right-hand throttle according to user's operating habits. After the left/right-hand throttle is switched, it will always be recorded, and user does not need to repeat the switching operation.



Left-hand mode to Right-hand mode:
Long press the No. 1 button, at the same time turn on the power switch of remote control, then let go (the remote control indicator flashes quickly), then push the right lever of the remote control to the top and hold it for two seconds, wait until the indicator of the remote control turns into red and flash slowly, then pull this lever to the bottom and stay for two seconds. When the indicator of the remote control turns into green, indicating that the switch is successful.

Right-hand mode to Left-hand mode:
Long press the No. 2 button, at the same time turn on the power switch of remote control, then let go (the remote control indicator flashes quickly), then push the left lever of the remote control to the top and hold it for two seconds, wait until the indicator of the remote control turns into red and flash slowly, then pull this lever to the bottom and stay for two seconds. When the indicator of the remote control turns into green, indicating that the switch is successful.

Insert the SD card

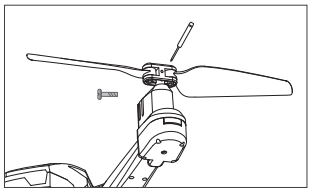


The drone equipped with a built-in WIFI camera, and the WIFI board has a card slot. User can connect to the drone WIFI with mobile phones and open the WOWI FLY APP to take photos and videos. Also user can insert a SD card to the drone and use the remote control to take photos and videos (which will be stored in the SD card) without connecting to the WIFI.

Note: SD cards and card readers are not included in this product.

How to replace the blades

Use a screwdriver to remove the screws on the drone blades, align the hollow shaft replacing with new corresponding blades, and then use the screwdriver to tighten the screws. (Note: The blades are divided into A/B styles. Please check the letters on the blades. New A blade is to replace old A blade, and so is B blades.)



Specifications

Drone	
Take-off weight	249g
Drone size	16 x 10x 7cm (folded) 30 x 30x 7cm (unfolded)
Maximum horizontal flight speed	5m/s
Maximum ascent speed	3m/s
Maximum flight time	20 minutes
Working frequency	2402-2480MHz,2412-2462MHz,5180-5240MHz,5475-5825MHz
Maximum effective distance of signal	1000m
Image transmission range	1000m
Battery	Li-po, 7.4V 1300mAh
Full charge time	100-150 minutes
Camera resolution	1920X1080
Video resolution	1920x1080 @25fps
Compatible memory card type	Micro SD card; minimum 4GB maximum 128GB, Mirco SD card with transmission speed of class10 and above.
Working environment temperature	0 to 40 C°

Remote control	
Working frequency	2402-2480MHz
Maximum effective distance of signal	1000m
Weight	158g
Remote control battery	4x”AAA” battery (not included)

Trouble shooting

Problems	Possible Causes	Solutions
Uncontrollable/ Not work	1. Unsuccessful pairing. Remote control is not synced to the drone. 2. Insufficient battery power.	1. Re-pair according to the instructions. 2. Use fully charged or new batteries and perform pairing again.
Vibrates/sways badly	1. The blades are deformed. 2. The hollow shaft bends.	1. Replace with new blades. 2. Replace with new hollow shaft.
Always fly sideways and out of balance	1. The blades are deformed. 2. There is a motor damaged. 3. The drone is not leveled during pairing.	1. Replace with new blades. 2. Replace with new motor. 3. Put the drone on a level surface and re-pair.
GPS return is not accurate	1. The compass is not calibrated. 2. Satellites searched are less than 14.	1. Recalibrate the compass. 2. Wait until the satellites searched reach 14 before flying.
Automatically turn left or right when hovering	The compass is interfered.	Recalibrate the compass.

MADE IN CHINA

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.

For drone

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

For Remote

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.