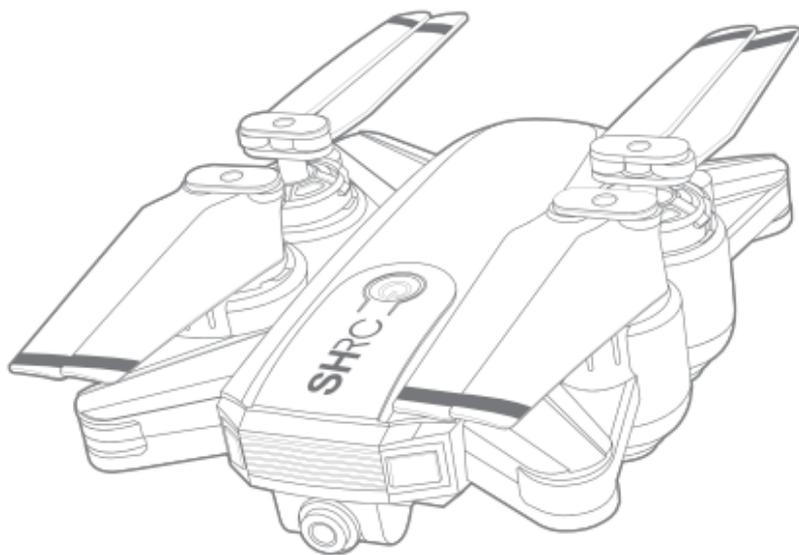


# INSTRUCTION

GPS GLOBAL POSITIONING



Thank you for your purchase of this product. Please read the Operation Instruction carefully and conduct operation and usage according to the Operation Instruction. Please keep this User Manual for your reference when conducting daily maintenance and adjustment.

# Safety instructions

---

1. please keep the parts of drone out of the reach of children.
2. this drone is very powerful. When using it for the first time, you should push the left control lever slowly to prevent the drone from rising too fast and causing unnecessary collisions and injuries.
3. when a flight is ended, please turn off the power switch of remote control first and turn off the power switch of the drone then.
4. do not place the drone battery in high temperature condition or near flammable or explosive materials.
5. please keep the drone at a distance of 4.5 meters from humans and animals to ensure safety and prevent injury.
6. this drone is suitable for people aged 14 and over, and it should be within the sight of the operator's (coach) to ensure safe flight.
7. do not charge the battery of remote control if the battery is a non-rechargeable battery. The drone must be used with the original batteries.
8. if the drone will not be used for a long time, please take the batteries out of the remote control unit.
9. do not cause a short circuit during the charging.
10. if you do not use the drone for more than 10 days, please discharge the battery of drone to 40-50%(flight for a certain time). In this way, the life of battery will be extended greatly.
11. please keep a safe distance from the rotating propeller to prevent injury.
12. all operators should abide by the electromagnetic environment regulations of China on the aeronautical radio (station), which remote control radios are prohibited from being used within 500 meters of the airport pavement, they are also required to comply with the certificate and broadcasting regulations made by the relevant regulatory authorities, including flight time and area.
13. please assemble the drone under the supervision of an adult.
14. operators are responsible for their safe flight and safe distance. Do not hover and fly over the crowd (more than 12 people).

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# Items list

Please check the items in package before you start.

Mini drone:	1	
Screws on protective ring:	12	
Propeller blade:	2 type A propeller blades 2 type B propeller blades	
Remote control:	1	
USB cable:	1	
Screwdriver:	1	
Instruction of product	1	

## Drone

### Description of drone

This drone has good controllability and stability. Besides supporting ordinary flight, it also has many other functions, such as GPS outdoor fixed point, real-time image transmission, information transmission, mobile phone control, photographing and video recording, gesture recognition, surround flight, track flight, follow flight, One-click return, head-free flight mode, etc., it is also with many safety measures such as propeller blade stuck protection, low battery alarm, automatic low battery return, height and flight fence restrictions.

### Battery charging steps

Lithium battery is used in this product, which has charging and discharging functions with a battery voltage of 7.4V. The battery must be charged with a factory-provided charging cable.

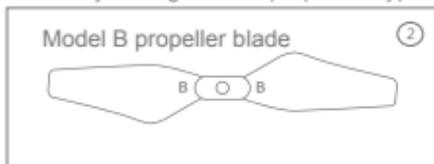
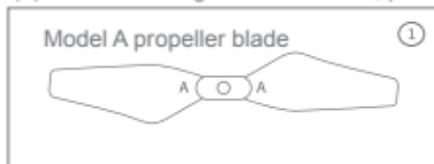
 Please charge fully the battery when the battery is used for the first time

Connect the battery of this product to the USB charging cable and connect the USB charging cable to the computer or adapter of smart phone (5v, 1A/2A). When the USB charging cable is powered on, its indicator light is red, if the battery is being charged, the red light on it will be always on and the green light on it will be flashing, if the battery is fully charged, the red light on it will be off and the green light on it will be always on. Please disconnect the power supply and unplug the battery when the battery is fully charged to prevent risks. Please ensure that the battery is fully charged before each using.

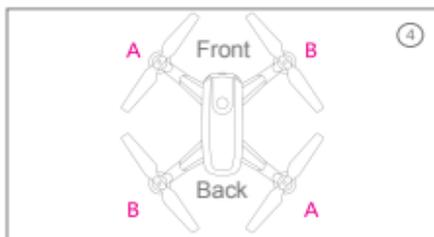
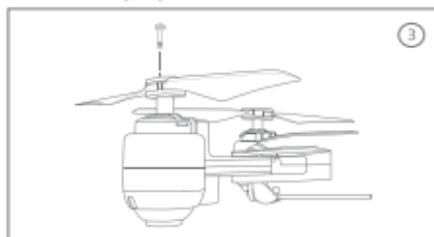
# Installing the Propellers

The Drone comes with replaceable propellers if the originals are broken or badly damaged.

(1) When installing for the first time, please carefully distinguish the propellers type.



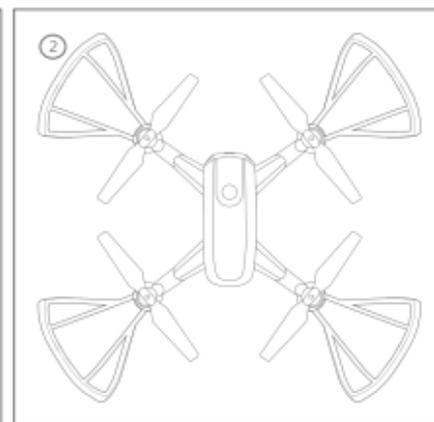
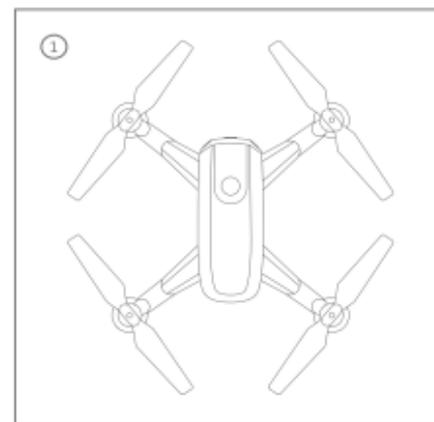
(2) Referring to Figure 3, insert the groove of propeller opener into the bottom of propeller which needs to be replaced. And press the handle of the opener to take down the propeller.



(3) Referring to Figure 4, distinguish between type A and type B propellers, and press the propeller vertically to install them on the motor shaft. The mark can be found on the rotor. It is extremely important to use the correct propeller (A or B) for replacement. Using the incorrect propeller will make the drone out of to control.

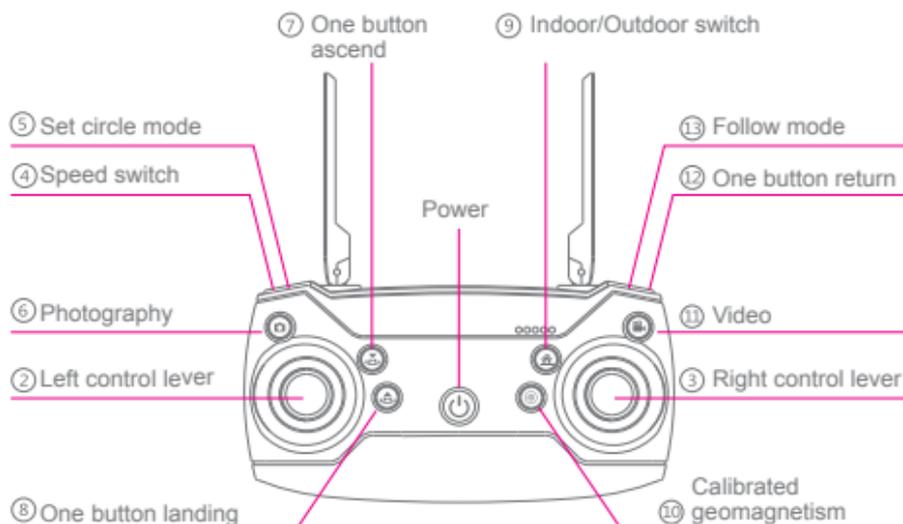
## Installing the protection ring

The protecting ring should be installed from the bottom in the direction as shown.



# Remote Control

## Function Instructions

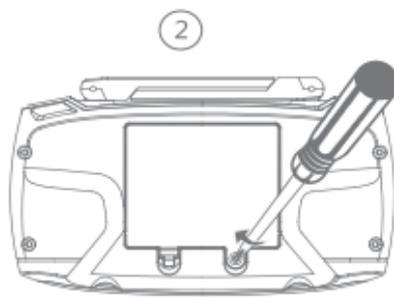
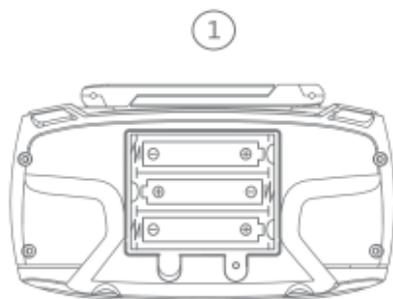


NO.	Function keys	Function Description
①	Power switch	Press the button of power switch the remote control light will be on/Press again the remote control light will be off.
②	Left control lever (ascend/descend/turn left/turn right)	Push the control lever upward,the drone will ascend vertically; Push the control lever downward,the drone will descend vertically; Push the control lever leftward,the drone will rotate counterclockwise; Push the control lever rightward,the drone will rotate clockwise;
③	Right control lever (level flight)	Push the control lever upward,the drone will be level flight forward; Push the control lever downward,the drone will be level flight backward; Push the control lever leftward,the drone will be level flight leftward; Push the control lever rightward,the drone will be level flight rightward;
④	Speed gear shifting	Changing speed gear

⑤	Set-circle mode	The drone will center around the current head at 2 meters and make a surround flight.
⑥	Photography	connecting the drone to APP;then press the photography button,drone will taking photo and saving into APP.
⑦	One button taking off	If the drone is in a state of stationary frequency,pressing this button it will taking off.
⑧	One button landing	If the drone is in a state of flight,pressing this button it will landing.
⑨	Indoor/Outdoot flight	Please refer to page tenth.
⑩	Calibrated copass	Please refer to page eighth.
⑪	Video	Connecting the drone to APP,then press the video button,the drone will recording video and saving into APP.
⑫	One button return	Pressing this button,the drone will fly back and sound "deep",press again,the drone will stop return and hover.
⑬	Follow mode	Switch to follow mode by APP,the drone will follow the connecting mobile phone within a certain distance.

## Installation of battery of remote control

Open and remove the battery cover, put into 3 AA batteries in correct polarity (batteries installation directions are shown in pictures below), close the battery cover and screw on it.



# Flight Preparation

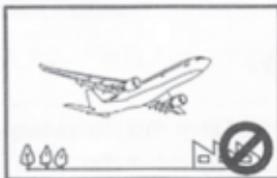
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Please have flight training before using the product (User should be guided by a professional.). Please choose appropriate flight environment when using the product.

## Applying Environment

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- (1) Choose an open place to fly where having no tall buildings.
- (2) Do not use this product in severe weather,such as strong wind,heavy snow,rain or fog days.
- (3) Please keep away from obstacles, crowds,high-voltage wires,trees,water,etc,when flying.
- (4) Do not fly in the area where there is complex electromagnetic environment (as near communication base station, signal transmission tower, or high-voltage station, etc.).
- (5) Do not fly in the area where it is not allowed to fly by laws and regulations.
- (6) Do not use this product in airports, stations and their surroundings.



## Preflight Inspection

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Please inspect the following items before flying:

- (1) Whether the drone and remote control are both with fully battery power.
- (2) Whether the propellers are installed correctly and without any damage.
- (3) Whether the propellers can ran normally when the produce is started.

## Linking Remote Control and the Drone

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- (1) Place the drone on the level ground.
- (2) Turn on the switch of the drone first, and then turn on the switch of the remote control.
- (3) As shown in figure, push the left lever of remote control fully forward, wait for a chime to sound, then pull the lever fully rearward, and wait for a second chime. When this last chime has sounded,the lights on drone turn from flashing to constant, the drone is ready to fly.

If the linking is not successful or the waiting time is too long, you should turn off both drone and remote control power and repeat the steps above.

# First use

If this product is used for the first time, you should conduct a compass calibration after the frequency match step is completed.



Calibrated geomagnetism

## Calibrated geomagnetism

Press the No.13 key on remote control unit for 2 seconds, when the four indicator lights on the drone are flashing quickly, the drone is in the calibration state.

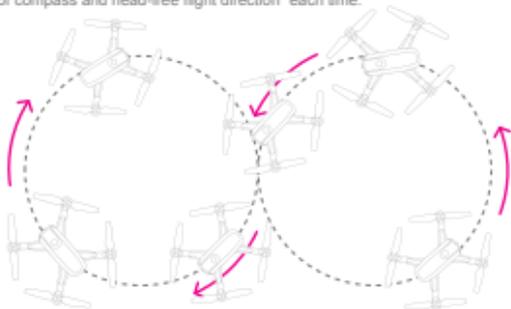
### Steps

- ① firstly, perform a horizontal direction calibration: take the middle part of the drone, try to keep it parallel with the ground, and slowly rotate the drone 4 times clockwise with the main body as the center;
- ② secondly, perform a vertical direction calibration: lift upwards the head of the drone vertically, keep it perpendicular to the ground, and slowly rotate the drone clockwise with the main body as the center until the four indicator lights begin to flash slowly or keep on, which represents the completion of the operation.

### Note:

- ① when you use this product for the first time, please be sure to complete the steps carefully. If this product is only used in one area, you do not need to repeat this operation in the future, if this product is taken 400 km away from the area where you calibrate the compass last time, you will need to repeat this operation.
- ② please complete this operation carefully, this operation is related to whether the drone can fly in the correct direction following the indication of remote control.
- ③ If the four indicator lights on the drone are in the cycle state of "slow flash once and quick flash twice", it means the compass is not successfully calibrated, you need to place the drone on a horizontal plane and repeat the above operation.
- ④ until this operation is to be done, the drone can begin to search satellites.

Please complete "calibration of compass and head-free flight direction" each time.



## Calibration of compass and head-free flight direction

Press the No.12 key on remote control unit for 2 seconds, when the four indicator lights on the drone flash quickly on the same time and then return to flash slowly or light on state, it means that the operation is completed.

### Note:

- ① Please put the drone on the level ground or flat surface to operate, this step will be a key to the normal flight of drone, if the calibration of gyroscope is not on level ground or flat surface, the drone may deviate toward a certain direction after take off, sometimes, and it may damage the drone motor.
- ② It is recommended to repeat this step before starting the flight.
- ③ It may cause gyroscope fail if the drone is collided or dropped seriously, which will affect the flight; please calibrate the gyroscope again in that case.
- ④ Refer to "headless flight mode" on page 10 of this manual for the meaning of calibrating the headless flight direction.

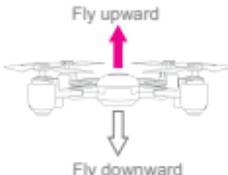
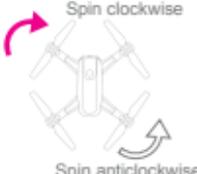
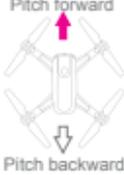
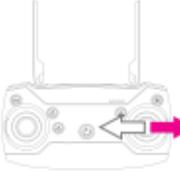
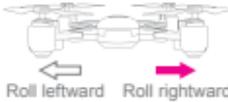
### Search satellites and position

After completing the above steps, you still have to wait for the drone to complete the satellite positioning. When the four indicator lights on the drone have changed from slow flashing to continuous light, it indicates that the drone has completed satellite positioning and reached the take-off condition. Now you can conduct the next step to start up the motor and fly.

### Note:

- ① The speed of searching satellites and positioning depends on environmental disturbances and weather conditions.
- ② In the case of cold start (more than 1 hour from the last flight), the time for searching satellites and positioning is from 40 to 90 seconds, usually it is within 60 seconds after the drone is started.
- ③ In the case of warm start (within 1 hour from the last flight), the time for searching satellites and positioning is from 10 to 40 seconds, usually it is within 20 seconds after the drone is started.

## Applying Environment

Remote control	Drone	Control method
		<b>Startup the drone motors</b> pull the two remote control levers as shown in the figure, and hold for 1-2 seconds to start the motors. After the motors start, release levers and push the levers to start flying.
		<b>Stop the drone motors</b> Stop the drone motors after drone lands to ground or other expected place, repeat the operation above for 1-2 seconds, the motors will be stop. The drone will have no reaction if you push the levers after this operation. The motor should be re-started if you want to play again.
		Push left control lever forward, the drone ascends vertically. Pull left control lever rearward, the drone descends vertically.
		Push left control lever rightward, the drone spins clockwise. Push left control lever leftward, the drone spins anticlockwise.
		Push right control lever forward, the drone pitches forward. Pull right control lever rearward, the drone pitches backward.
		Push right control lever rightward, the drone rolls rightward. Push right control lever leftward, the drone rolls leftward.

# Advanced flight function

## Speed gear adjustment

Press the No.4 key on the remote control unit to change the speed of drone. When the drone is switched into low speed gear, the remote control unit will make a beep sound, when the drone is switched into high speed gear, the remote control unit will make two beeps. The speed gear will be kept in low speed gear automatically after the drone or battery power of remote control unit is shut down and restarts again.

## Photographing and video recording

Short press the No.5 key on remote control unit, the remote control unit will make a short beep and then begin to take pictures; long press the No.5 key on remote control unit, the remote control unit will make a long beep and then begin to record a video, long press again to terminate the recording. The camera and video documents that are recorded will be saved in the mobile that is connected with drone, you can read them directly in the control software.

Note: This feature is only available when the phone is connected.

## One-click return

Each time, when the drone takes off, the Global Position System of the drone will automatically remember the takeoff point. When you press the No. 6 key on the remote control unit in the flight, the remote control unit will make continuously beeps, and the drone will automatically return to the takeoff point. If you press this key again when the drone is on the way back, the drone will stop returning back and keep hovering.

## Altitude hold mode (indoor mode, please use it cautiously)

After calibrating the gyroscope and headless flight direction, you can press the No.11 key on the remote control unit to turn off the GPS, the drone can be started up and fly under situation of unfinished satellite positioning (or in indoor environment). You can press this key again; the remote control unit will make a long beep to restart the GPS.

Note:

- ① If you turn off the GPS in indoor environment, the drone can take off, but it is easy to be disturbed by indoor radio signals, which may cause the drone to lose control and hit indoor persons or articles. Please use this function cautiously.
- ② When the outdoor wind is strong, it is not recommended to open the altitude hold mode, which will cause the wind resistance ability of the drone dropping, the drone can be blown away by the wind.
- ③ Do not use altitude hold mode in the air to conduct satellite positioning, the return point will be on the ground below the position vertically, which may cause the drone to misjudge the return point. If you want to switch back GPS mode from the altitude hold mode, please take back the drone and place it on the ground, then restart the GPS (press No. 11 key again) and the motor.

## Safety Measures

1. Signal loss protection Signal loss protection means that the drone will automatically return to the takeoff point if it has successfully searched satellites and positioned before taking off, and kept the GPS turning on after losing the remote control signal. Drone will run Off Signal Safe Mode in following cases:

- ① Remote control loses power or is shut down suddenly.
  - ② Disconnect mobile's wifi, exit related software, power off, etc. if the drone is controlled by a phone
  - ③ Remote control signal or mobile phone signal is interfered by other electromagnetic wave.
  - ④ Drone is beyond the effective distance of remote control signal or mobile phone wifi signal due to wind or inertia reason.
  - ⑤ There is an obstruction between the drone and the remote control unit or mobile phone to affect the signal transmission.
2. Low battery protection Low battery protection means that the drone has a smart power calculation system, which can calculate the flight time based on the flight speed and remaining power, when the remaining power is lower than protection value, the drone will automatically return to the safe range, when the remaining power is nearly exhausted, the drone will automatically return to the takeoff point and force to land. When the drone is with the low battery protection mode, the four indicator lights will flash simultaneously. It is recommended that you purchase more spare batteries and charge the batteries before using to ensure sufficient power.

The remote control unit also has the low battery protection function. When the remote control unit is with the low battery protection mode, it will continuously make beeps to remind. At this time, you should take back the drone and replace the remote control batteries.

3. Emergency stop When the drone is out of control or in an emergency: winding with branches, wires, hair, etc., or when the blades hit an obstacle, the drone will automatically enter the emergency stop mode and shut down. When the outdoor wind is higher than level 5 or strong gust, the drone will also enter this mode. In the event of other emergency situations, the drone motor has not be shut down, you should refer to the one-click stop function to shut down the motor. Note: In this mode, the drone will fall from the air, it may be destroyed and hurt people and animals below, so please ensure that the flight environment and operation methods meet the safety conditions. You can use the "one-click landing" function as appropriate.

# Control with a mobile phone

## Downloading APP

Scanning the QR code below and downloading the software



Android version



Foreign Android System



Apple System



LW FPV

## Opening and connecting the software on your phone

Enter the "Settings" function of the mobile phone, open the MF option, find the device WF name "WIFI-720P-GPS-XXXXXX" and connect. After the connection is completed successfully, return to the desktop, open the downloaded application, and enter the program.



Click "Start Flight" to enter the control page

## Basic keys and information description

Before using the software, you should familiarize the functional meaning of the keys and icons.

- Return to the home page
- Select flight mode
- Control lever on/off
- Return / hover
- Unlock / lock
- Takeoff / landing
- Setup menu
- Map / preview
- VR mode
- Take photos.
- Video recording.
- Album



### Function definition

1. Return to the home page 2. Select the flight mode. 3. Turn the control remote on or off. (Only available in the "mobile phone takeover" mode, please refer to the function of the left and right control levers of remote control unit in the basic flight.) 4. When the drone is hovering, click this key to execute the "one-click return" function. During the return flight, click this key to execute the "hovering" function. 5. After the searching satellites and positioning are successfully, click the key to take over the drone by a mobile phone, click the key again to exit the mobile phone. (Always keep the remote control turned on) 6. One-click take off and land. 7 . Open the settings menu. 8 Switch to map or image transmission display frame. 9 . VR mode (VR glasses are required). 10. Click to take photos. 11 . Click this key to start recording, and click the key again to end recording. (When the signal is poor or interrupted, the software will automatically end recording and save). 12. Open the album to view the recorded files.

## Return message meaning





The following functions must be used after the drone has completed the searching satellites and positioning.

1. Hover mode
2. Track and waypoint mode
3. Follow mode
4. Rotation around a point mode

## Hover mode

When the drone is in other flight modes, you can press this mode and make the drone enter normal hover mode.

## Track and waypoint mode

Before using this function, you should familiarize the meaning of icons.



1. Sketch flight path
2. Set flight waypoints
3. Delete all flight paths and waypoints
4. Delete a single waypoint
5. Send instruction

- 1 Click on "flight path and waypoint mode", the screen will switch to the map display frame and a circular area (50m radius) will appear. The blue point is the location of the phone (as shown in Figure 1).



Figure 1

- 2 Open the right setup menu, click the "sketch flight path" key, and draw the flight path you want the drone to move in the circular area (as shown in Figure 2), then click "send instruction", the drone will fly according to what you have drawn.



Figure 2

- 3 Open the right setup menu, click the "set flight waypoints" key, and draw the points you want the drone to move in the circular area (as shown in Figure 3), then click "send instruction", the drone will fly according to what you have drawn. You can set 24 waypoints at most. When you want to delete all or individual waypoints, you can use the delete function.



Figure 3

- 4 You can set the waypoint parameters in the parameter bar of the setup menu in advance (as shown in Figure 4).



Figure 4

## Follow mode

In the case of close range (it is recommended that the height is not exceeded for 10 meters and the distance is not exceeded for 20 meters), when this mode is opened, the drone will follow the mobile phone to move at a fixed distance from the current distance.

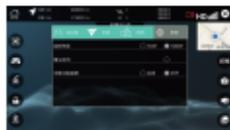
## Rotation around a point mode

Click on "rotation around a point mode", the screen will switch to the map display frame and a circular area (50m radius) will appear. The blue point is the location of the phone. Click once in the circular area to mark the center point of the flight. Click the center point to display the parameter setting window. You can set flight height and radius. Click the center point again to save the parameters and close the setting window. Click the "Delete" key to delete the center point and the parameters. Click the "send instruction" key to send an action instruction to the drone to execute the set flight.



## Gesture recognition and photographing mode

Enter the "other" option in the setup menu, select open in the "gesture capture" column, and exit the window. Move the drone to a distance of 1-2 meters from the person who is ready to take photos, the person can make the following gesture (Fig. 1) and the drone will take a photo after 3 seconds. If the person make the following gesture (Fig. 2). The drone will record video after 3 seconds, repeating the gesture will stop recording.



(Figure 1)  
Gesture photo pose



(Figure 2)  
Gesture video pose

1. When searching satellites and positioning, the more the satellites, the higher the precision, the returning error is usually within 1 meter radius.
2. In the return mode, the drone can only land by "one-click landing". If you want to control the drone, please cancel the return mode.
3. When the image transmission signal is poor, the photographing and video recording functions will be invalid.
4. The image transmission signal is related to the flight environment. The area with large flow of people and many buildings will have strong interference. Communication towers, network base stations, WIFI transmitters and monitors are all sources of interference. Please avoid the environments above.
5. The image transmission effect is also related to your phone configuration and memory. When using this product for image transmission, please close other background softwares to make the image transmission effect better.

**SWEEP THE QR CODE  
WATCHING FLIGHT TEACHING  
VIDEOS REFUSED TO LOSE,  
REFUSED TO LOSE CONTACT**

**1**

### Identification Of The Drone



**2**

### Geomagnetism Calibration Course



**3**

### Electronic fence Course



**4**

### Out Of Control Return Course



**5**

### Low-voltage Return Course



6

Set Point Course



7

Set Circle Fly Course



8

One Button Return Course



9

Gps Follow Course



## Kindly reminde

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1. it is recommended to connect the mobile phone app before completing the take-off operation to ensure that the mobile app is connected successfully with the aircraft.
2. when outdoor wind is large, it is not recommended to open the altitude hold mode.
3. When the signal becomes worse, the picture and control delay may appear. At this time, the remote controller should be kept electrically waiting for the signal to be reconnected or press the key to return.
4. in case of emergency, press the "one button stop" button, and the propeller will stop immediately and start to fall.
5. it is recommended to open headless mode in outdoor flight to identify direction
6. charging must use the cable supplied to prevent accidents or battery damage.