

EN

AGE 14+

CHUBORY®

SUPER ENDURANCE FOLDABLE DRONE
OPERATING MANUAL

A77



www.chubory.com

Tutorial Video

If you encounter any issues, please contact our
technical support team at:
chubory@qq.com

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.

NOTE 1: 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.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

RF Exposure Statement

To maintain compliance with FCC'S RF Exposure guidelines, This equipment should be installed and operated with minimum 20cm between the radiator and your body. This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter.

CAUTIONS

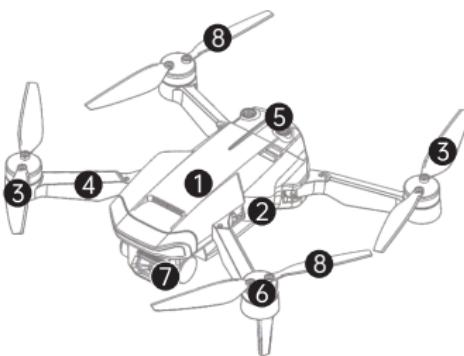
- This product is not a toy, and improper use may result in damage. Please strictly follow the instructions manual or tutorial video.
- This product is suitable for individuals aged 16 and above. Due to its complexity, beginners are advised to seek guidance from an experienced pilot. Beginners should practice low-altitude flying in open, unpopulated areas for approximately three days to familiarize themselves with flying before attempting high-altitude flights.
- After the aircraft is powered on, avoid contact with the high-speed rotating parts and propellers to prevent the risk of injury (including gears and rotor blades).
- During and after use, the battery and motor of the aircraft will generate high temperatures. Do not touch them to avoid the risk of burns.
- To ensure compliance with aviation radio station requirements, do not use within a 5000-meter radius from the airport runway center or during periods and areas where radio control orders are issued by relevant authorities.
- Ensure that no one else is using the same frequency and keep the aircraft within your line of sight.

CONTENT

	KNOW YOUR DRONE	1
	ACCESSORIES	2
	PRE-FLIGHT PREPARATION	3
	LITHIUM BATTERY INSTRUCTION	6
	KNOW YOUR REMOTE CONTROL	7
	INSTRUCTIONS FOR THE REMOTE CONTROL	8
	INSTALL A PROTECTIVE RACK	8
	SIGNAL CONNECTION OF TRANSMITTER AND RECEIVER	9
	TRANSMITTER CALIBRATION	9
	START YOUR FLIGHT	10
	FLIPS & ROLLS	11
	HEADLESS MODE	12
	HOVER	12
	FINE-TUNING FUNCTION	13
	FAQ	14
15	SOFTWARE INSTALLATION INSTRUCTIONS	
17	TIPS	
18	OPERATION INTERFACE	
22	ILLUSTRATION ON THE FUNCTIONS OF ICONS	

KNOW YOUR DRONE

With 2.4G frequency band for long remote control distance. Drone allows multiple flights at the same time without any interference. User can control it to fly, hover and take photos and videos with APP and WIFI connection on smart phone.



① Upper Casing	⑤ Battery
② Lower Casing	⑥ Motor
③ Propeller B	⑦ Camera
④ Arm	⑧ Propeller A

Blade replacement:

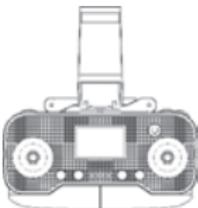
The propeller to be replaced must be replaced corresponding to the relative position on the machine. Propeller A needs to be installed at position A, and propeller B needs to be installed at position B. If propeller is replaced incorrectly, it can not be controlled.

When flying, the fan blade A rotates clockwise, and the propeller B rotates counterclockwise.

ACCESSORIES



Drone x1
(Battery included)



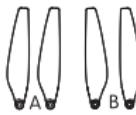
Remote Control x1



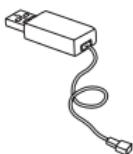
Batteryx3



Protective Guard x4



Backup Propellers
Ax2 Bx2



USB Cable x1



Screwdriver x1



User Manualx1

Notes

Please check the number of accessories carefully (as shown above). Please provide proof of purchase and contact the seller for replacement of any missing parts.

PRE-FLIGHT PREPARATION

★ Flight Environment



Indoor: Spacious spaces away from barriers, crowds or pets are preferred.



Outdoor: Sunny, windless and breezy weathers are preferred.



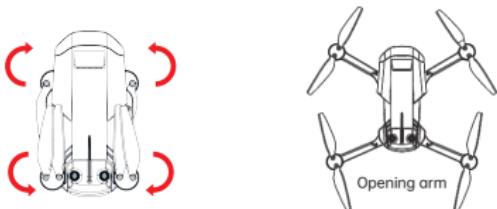
Please keep the drone in sight during the flight and keep it away from barriers, high voltage wire, trees and people.



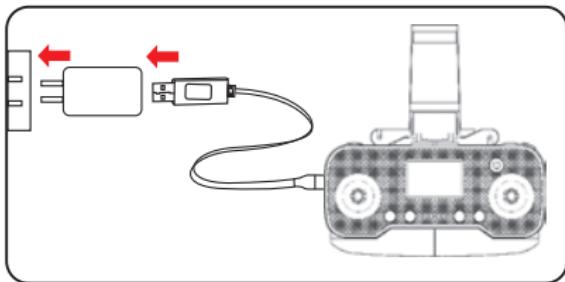
Do not fly in extreme environment, such as hotness, coldness, strong wind or heavy rain.

★ Open The Wings

- ① Open the front arm(close to camera)
- ② Open the back arm
Fold the back arm firstly and then the font arm when folding.



★ Charge The Remote Control



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 for charging. The charging indicator light is on when charging, and the indicator light turns off when fully charged.

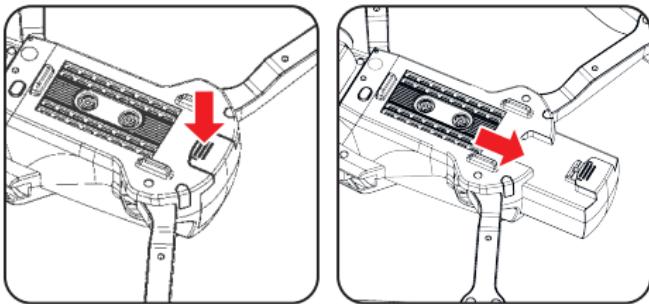
Charging time is about 40 minutes.

Tips

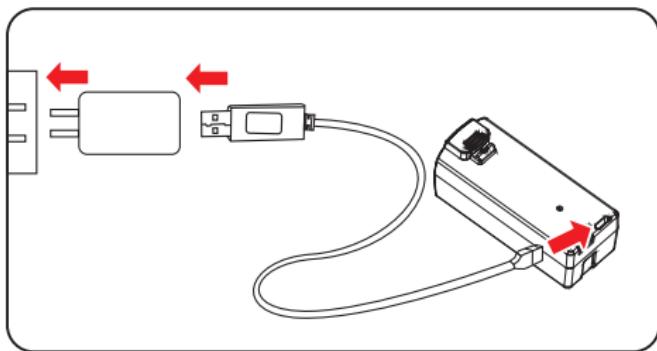
if the charging indicator light does not change during charging, it means the battery is fully charged and does not need to be recharged.

*Battery Charging For Drone

1. Remove the lithium battery from the bottom of the drone.



2. Connect USB charging cable with the charging interface of the lithium battery.



Tips

The indicator light on the battery is always on when charging, and the indicator light is off when fully charged.(Charging time is about 360 minutes).If the battery is plugged into the charger, the indicator light on the battery does not light up, and there is no need to recharge.

⚠ LITHIUM BATTERY INSTRUCTIONS

- There is a certain risk when using lithium battery. It may cause fire body injury or property loss. Users must be aware of the risks and take full responsibility of using battery properly.
- If battery leakage occurs, please avoid contacting your eyes or skin with electrolyte. Once it happens, please wash your eyes with clean water and seek medical care immediately.
Please remove the plug immediately if you sense any peculiar smell, noise or smog.

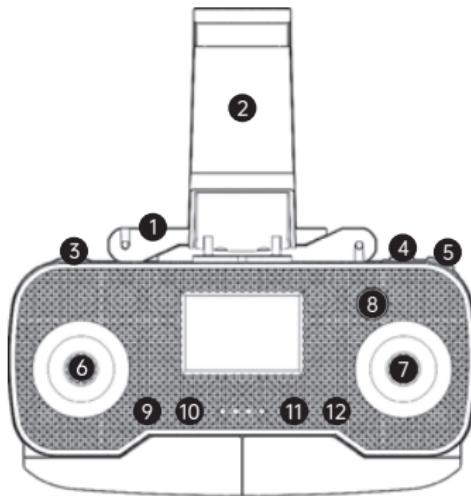
★ Battery Charging

- Please use the charger from original factory to ensure your safe usage.
- Do not charge dilatant or outworn battery.
- Do not over charge battery. Please unplug the charger once fully charged.
- Do not charge the battery next to inflammables, such as carpet, timber floor or wood furniture or on the surface of electro-conductive objects.
Please always keep an eye on the battery when charging.
- Do not charge battery which not cool down yet.
- The charging temperature should be between 0°C to 40°C.

★ Battery Recycling

- Do not dispose the battery as daily rubbish. Please familiarize yourself with the local garbage disposal method and dispose it according to the special requirement.

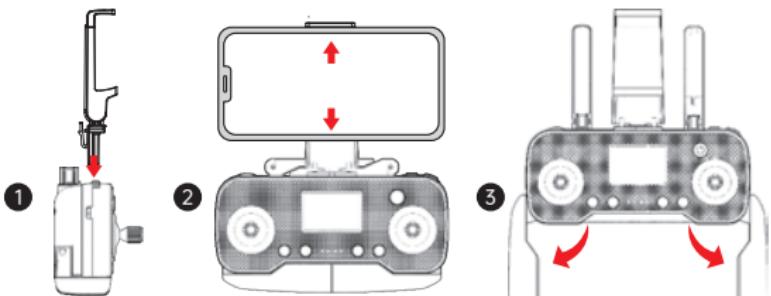
KNOW YOUR REMOTE CONTROL



① Antenna	⑧ Power switch
② Mobile phone holder	⑨ Takeoff/descent Long press emergency stop
③ Camera adjustment	⑩ Headless mode
④ One-key flips&rolls	⑪ Fine-tuning
⑤ High/Low speed	⑫ Calibration
⑥ Left joystick	
⑦ Right joystick	

INSTRUCTIONS FOR THE REMOTE CONTROL

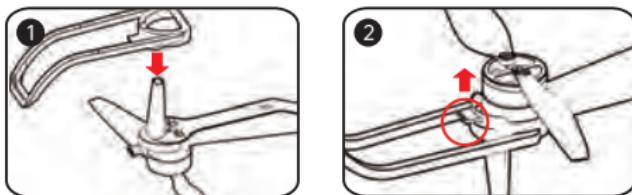
Handlebar/Mobile Phone Frame



Mobile phone frame: Put the mobile phone frame into the remote control (①), and stretch it up to place the phone (②).

Remote control handlebar: pull down the bottom handle of the remote control from the middle position and rotate to the place(③).

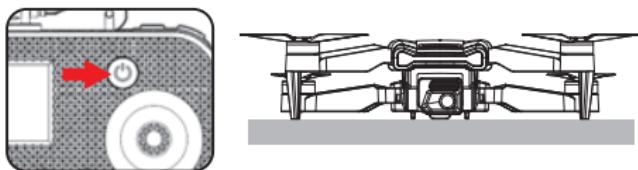
INSTALL A PROTECTIVE RACK



Align the protective guard with the arm and install if (①), press it until it is in place, and then press the position (②),up to fasten the protective frame.

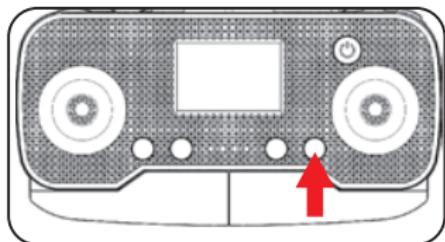
SIGNAL CONNECTION OF TRANSMITTER AND RECEIVER

Put the battery of the drone into the battery slot of the drone in the correct direction, place the drone on the level ground and turn on the power, then turn on the power of the remote control. Steady light indicates successful linking.



TRANSMITTER CALIBRATION

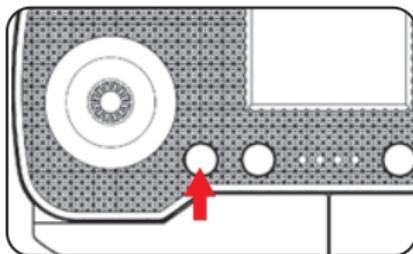
Apply transmitter calibration when the drone fails to take off vertically. Press the "One button calibration" button when the lights of drone are on and then start flashing and keep on again, the calibration is complete. the drone must be placed on horizontal surface in a steady state when the calibration is conducted.



START YOUR FLIGHT

*One-key Ascend

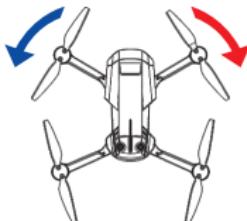
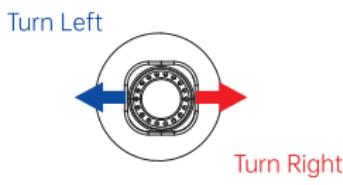
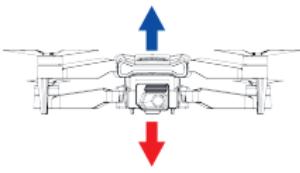
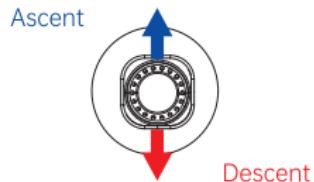
Press the "One-key Ascend" button, the drone blades rotate and automatically fly to a height of 1.5 meters.



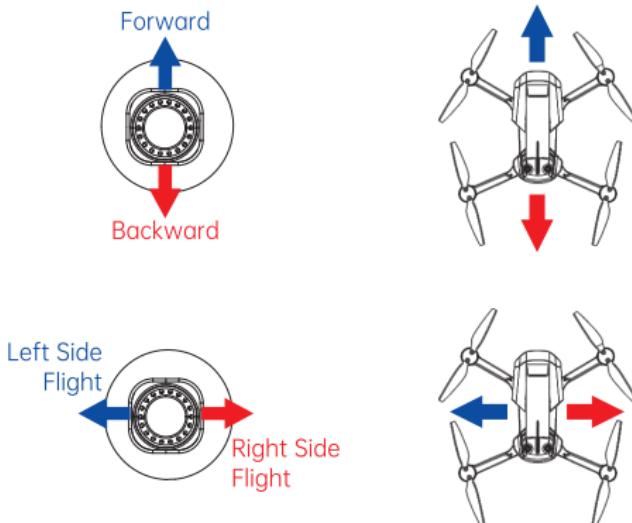
* Basic Flight

Use the left joystick to control the flight altitude and turn left/right, and the right joystick to control the forward, backward, left and right sidde flight directions.

Left joystick



Right joystick

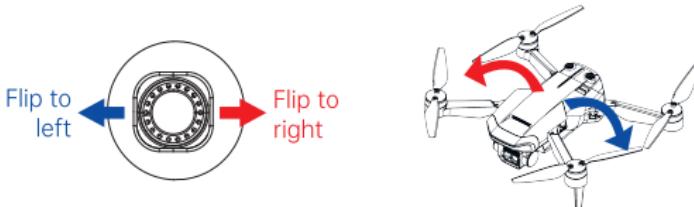


FLIPS&ROLLS

When the drone is reaching more than 3 meters high, click "360° flips and rolls" and move the right joystick to a certain direction, the drone will rotate in that direction.

It is recommended to remove the protective frame when the aircraft is performing a one-button roll, so as to prevent the area of the aircraft from getting stuck in the wind, which will affect the best special effects.

Right joystick



HEADLESS MODE

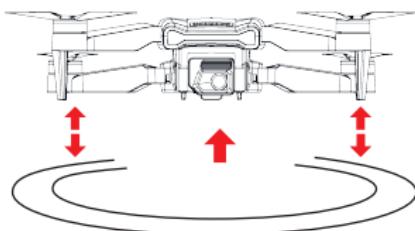
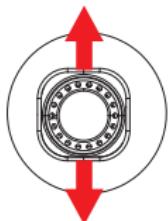
The flight direction of drone is subjected to the direction of remote control.

1. When drone adjust the frequency, the drone is default as common mode. Then the indication light of drone is normally on. When you press the headless function key of remote control, the remote control beeps once and enters headless state. When you press the headless function key again, it will sound long "beep" and the drone exits the headless mode.
2. In the headless state, operator doesn't need to identify the direction of nose, but control the drone according to the operating lever of remote control.

HOVER

When you release the left joystick (throttle) after the ascent/descent action, the drone will hover at a certain height.

Left joystick

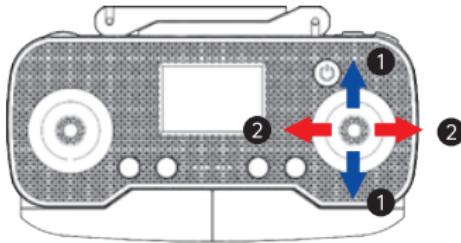


FINE-TUNING FUNCTION

If the drone lean to one side when hovering, fine-tuning can be used to correct its direction.

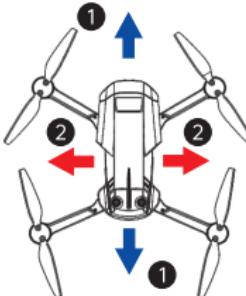
Press the fine-tuning button and hear a beep, then move the joystick in the opposite direction to adjust and calibrate until the aircraft does not deviate.

If there is no operation for 5-6 seconds after entering the fine-tuning, the fine-tuning function will automatically exit.



① Forward/Backward
Fine-tuning

② Left/Right Side
Fly Fine-tuning



Notes

When the drone is within 30cm from the ground, it will be affected by the blade vortex made by itself and become unstable. This is "ground effect". The lower the drone is, the greater the effect will be.

FAQ

PROBLEMS	CAUSES	SOLUTIONS
Out of control	The wind is too strong. Strong wind will interfere with your control of drones.	Do not fly in windy days. If strong winds are taking the drone away, please land it immediately or turn on the third speed (full speed) and use Headless Mode to fly the drone back.
	The drone is too far away to determine its orientation of the head, resulting in the inability to control its flight direction.	Use the Headless Mode to fly the drone back.
	Exceeding the effective control distance.	Fly within the range of the remote control distance. Please increase the flying distance after you become proficient gradually.
Mobile phone can not connect to the WiFi of the drone	Cellular network interference with the WiFi connection.	Turn off the cellular network of the phone first, and wait until the phone connects to the wifi of drone successfully and then turn on the cellular network.
Follow Me Mode does not work	Follow Me Mode and Gesture Control cannot be used when the controller controls the drone, and can only be used when the phone controls the drone.	If you want to use this function, please do not connect the controller to the drone, only use your phone to connect to and control the drone.
Gesture Control does not work		
Headless Mode not working properly	If the direction of the head of the drone and the controller is not consistent during connecting the signal of the drone and controller or calibrating, Headless Mode will fail to work properly.	Please ensure the direction of the head of the drone and the mobile phone holder of controller(unfolded state) is consistent when doing calibration or connecting the signal of the drone and the controller.
Fail to take off	The rotation speed of the main blades is too slow.	Push up the throttle joystick.
	The battery of the drone is not fully charged.	Please charge the batteries fully.
Landing too soon	The throttle stick is pulled down too fast.	Pull down the throttle stick slowly to achieve a smooth landing.

SOFTWARE INSTRUCTION

SOFTWARE INSTALLATION INSTRUCTIONS

⚠ Caution

During the process of downloading the app and connecting to WiFi, you may encounter pop-up windows requesting authorization. Please make sure to click "Agree" to avoid potential issues with the camera function.

★ Install The App

Please scan the QR code below and download the mobile App on the corresponding website. (you can also search for "CHUBORY FLY" in the app marketplace for downloads)



iOS



Android (Other)

★ Connect Aircraft Wifi

1. Turn on the aircraft power.
2. Open the mobile phone settings and navigate to "Wireless LAN."
3. Look for the aircraft hotspot and select the network starting with "CBR" (no password required). The phone will connect automatically. At this point, a window may pop up requesting authorization to connect. Please click "Agree."
4. Open the downloaded mobile application, check the box indicating that you have read and agreed to the terms of service and privacy policy, then click "Start Flight" to use the application's features. Note that if you do not need to use the remote controller and prefer to operate the drone directly with your phone, you will need to click "Flight Preparation" and follow the instructions for calibration before clicking "Start Flight."

★The Recommended Model Configuration

ios

Configuration	Recommended	Optimal
Product model	iPhone 5S、iPhone SE iPhone 6 and above	iPhone 6S and above
System version	iOS 8.0 and above	iOS 8.0 and above

Android

Configuration	Recommended	Optimal
The CPU model	Snapdragon 630 and above Samsung Exynos 7420 and above Hair division Helio X25 and above Kirin 950 and above	Snapdragon 835 and above Samsung Exynos 8895 and above Hair division Helio X30 and above Kirin 970 and above
System version	Android 5.0 and above	Android 8.0 and above
Memory size	3G and above	6G and above
CPU usage	Occupancy rate of 25% and below	Occupancy rate of 10% and below

- Clean up the background program, which can effectively reduce the CPU usage.

TIPS 1

An aircraft, at the same time, only one mobile APP is allowed to connect!

Instructions

To ensure that the lens gets a higher recognition rate :

1. Please aim the lens face to face;
2. Please fly in a good light environment;
3. Please conduct gesture recognition operation at a distance of about 2m from the lens.

In the following cases, it will result in a low lens recognition rate:

1. Weak light or backlight;
2. The WiFi signal is weak or the signal is disturbed.

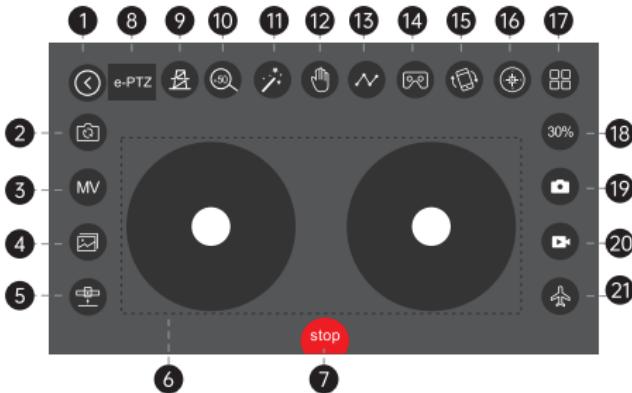
TIPS 2

When the aircraft is in the following environment, the fixed-point hovering effect is not good.



OPERATION INTERFACE

★ Introduction to operation interface



In "flight mode," double-click the white space with your finger can change the lens.

① Back	⑫ Palm control
② Perspective conversion	⑬ Trajectory flight
③ MV	⑭ VR
<small>Some models do not support this feature</small>	
④ Album	⑮ Revolve len
⑤ Take off/land	⑯ Headless
⑥ Rocker mode	⑰ Menu
⑦ Emergent landing	⑱ Change speed
⑧ Electronic cloud table	⑲ Take photos
⑨ Monocular obstacle avoidance	⑳ Shoot videos
⑩ 50 times zoom	㉑ Mode switch <small>(Flight mode/master mode)</small>
⑪ Filter	

★Control mode

- In Settings, you can switch the control mode.



In this mode, the control pad on the left can control the upward, downward movement, left and right turn of the aircraft, and the control pad on the right can control the forward, backward movement of the aircraft, and it can also move the aircraft towards the left and right. (In this case, take the left hand throttle as an example. If set as the right hand throttle, the left and right side control panel functions interchangeably.)



In this mode, the control pad on the left can control the aircraft's upward and downward movement; The control pad on the right can control the aircraft's forward, backward movement, and it can also move the aircraft towards the left and right; Slip your fingers on the screen to the left or right, controlling the aircraft's left or right turn.



In this mode, the control pad on the left can control the upward, downward movement, left and right turn of the aircraft, and the control pad on the right can control the forward, backward movement of the aircraft, and it can also move the aircraft towards the left and right. (Take the left hand throttle for example)

- When the thumb touches the phone's screen, it displays the control panel. With the thumb off the screen, the drive is hidden.

Motion sensing mode



In this mode, the control pad on the left can control the aircraft's upward and downward movement; Slip your fingers on the screen to the left or right, controlling the aircraft's left or right turn respectively; Long press the white center of the circle on the control pad on the right with your fingers, when the cellphone tilts forward, backward, to the left and right, the aircraft will also fly forward, backward, towards the left and right.

★ Flight mode



In flight mode, a number of visual recognition operations can be performed.



Yeah gestures take pictures About 2m in front of the camera of the aircraft, hold the Yeah gesture with one hand flat. After the aircraft successfully recognized the gesture, the countdown of 3 seconds began to take photos;



Video of box gesture About 2 meters in front of the camera of the aircraft, put your hands on the position of the face jaw to make a square video gesture. After the aircraft has successfully recognized the gesture, the video will start. When the gesture is recognized again, end the recording (the time difference between two recognition should be more than 3 seconds);



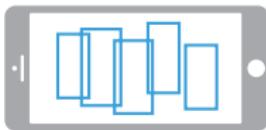
Video of hand gesture About 2 meters in front of the aircraft lens, with five fingers and one hand flat; After the aircraft has successfully recognized the gesture, the video will start. When the gesture is recognized again, end the recording (the time difference between two recognition should be more than 3 seconds);

★Master mode

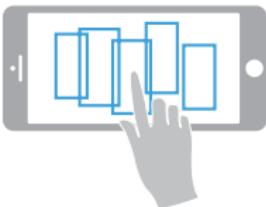


In the master mode, the following function can be implemented, and the specific operation steps are shown below:

1 Blue candidate boxes for the target person appears on the screen.



2 On the screen, tap your finger to select the target character.



3 After the target person is locked, the blue box will turn red. Make sure the red box target character is in the middle of the screen.



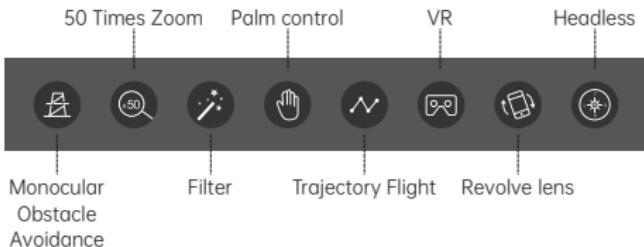
4 The tracking flight starts when the aircraft is about 2m away from the target figure.



5 If the target character is lost, you need to click the target character again. If there is no alternative character in the screen for 5 seconds, it will jump to "flight mode" automatically.

· When the red frame is more than 80% of the human area, it's the best effect.

ILLUSTRATION ON THE FUNCTIONS OF ICONS



Monocular Obstacle Avoidance

Monocular obstacle avoidance is only used to assist flight, do not fly directly at people to test the effect. (It takes one second to back off to trigger the obstacle avoidance function to release.)



Trajectory Flight

With this function, draw a trajectory in the frame on the right of the screen, and the aircraft will fly according to this trajectory.



Headless

In this mode, the original directions of the aircraft will be redefined; In this mode, the right ahead the controller is the forward direction of the aircraft; Other directions follow the same rule.



50 Times Zoom

After opening, adjust the zoom multiples of the lens view by adjusting the right slide bar. After the view is enlarged, the finger slides the visual range of the movable view on the screen.

Please scan the QR code below and download the mobile App on the corresponding website. (you can also search for "CHUBORY FLY" in the app marketplace for downloads)



iOS



Android (Other)

Please scan the QR code below and watch the operation guide video before start the flight.



WARNING: The A77 drone is controlled via Wi-Fi, and the external environment may interfere with the Wi-Fi signal. Please learn how to operate it before taking off and gradually increase the flight distance.

If you encounter any issues, please contact our
technical support team at:
chubory@qq.com