



CHEERSON™

14+

USER MANUAL

No.CX-70

Please read and follow all instructions and warnings
in the manual prior to set up or use.
Do not discard the manual.

Dear Customers:

We appreciate you for choosing our products.

For the safety reasons, please read the manual carefully. Keep the manual for future reference.

1.Warning:

1. This is not a toy. It is a sophisticated hobby product equipped with electronic and mechanical parts. It must be operated with caution and common sense. The pilot should take all reasonable steps in order to protect: himself, other people, animals and property. We take no responsibility for any kind of accidents which are caused by incorrect operation, or incorrect installation of parts.
2. The product is suitable for hobbyist who are over 14 years old.
3. Please fly in areas where flying is permitted.
4. We take no responsibility of operations, usage and etc. after the aircraft is sold.
5. Please contact your local dealer for parts and repair consultations.

2. Safety Precautions

1. It is a high-risk product and we recommend always operate it in open spaces away from people, vehicles and property. Always keep a safe distance in all directions around the device while it is in operation to avoid collisions or injury.
2. The accidents (physical injuries or property damages) may be caused by: incorrect aircraft's parts installations; damaged aircraft's parts; defective electronic equipment; unfamiliar operations of the aircraft. The pilot should pay attention to the safety while operating the CX-70. The pilot is responsible for the accidents.

Flying CX-70

1. Make sure all the batteries are fully charged: transmitter battery and aircraft battery.
2. Make sure the throttle is moved to its lowest position and throttle's trim is in the neutral position.
3. Plug aircraft's battery and then turn on the transmitter. After the flight, unplug the aircraft's battery and then turn off the transmitter. Wrong sequence of this procedure may cause the aircraft to fly away or be out of control causing injuries and damages.

4. Operate the product in open spaces away from: obstacles, people, power lines, high buildings etc. Pay attention to the weather conditions – strong wind, rain and thunder are the potential risk factors which can lead to a loss of control.
5. Avoid water exposure to this product. Keep all the parts dry.
6. Replace broken parts of the aircraft.
7. Obey the local UAV laws and regulations.
8. CX-70 piloting requires specific skills and should be learned under direct supervision of an experienced adult. We recommend to use computer simulative software in order to get basic flying experience before taking CX-70 to the field.
9. Always keep the device in sight during operation.
10. Do not fly the aircraft while under the influence of alcohol.
Keep away from the rotating blades (rotating blades may cause bodily injuries, or damage the property).
11. CX-70 is build out of: metal, fiber, plastic and electronic components. Therefore, keep away the aircraft from heat sources in order to avoid damages.

1 CX-70

- The Aircraft can be used just like a watch when worn on the wrist.
- The design of the aircraft allows for easy maintenance and repairs.
- Easy operation: one touch take-off/landing; one touch flips/rolls; altitude hold; 3 speed modes; trajectory flying; selfie mode; VR split screen; one touch emergency stop; WiFi real time video transmission.
- The aircraft can be controlled with the transmitter or mobile phone App.

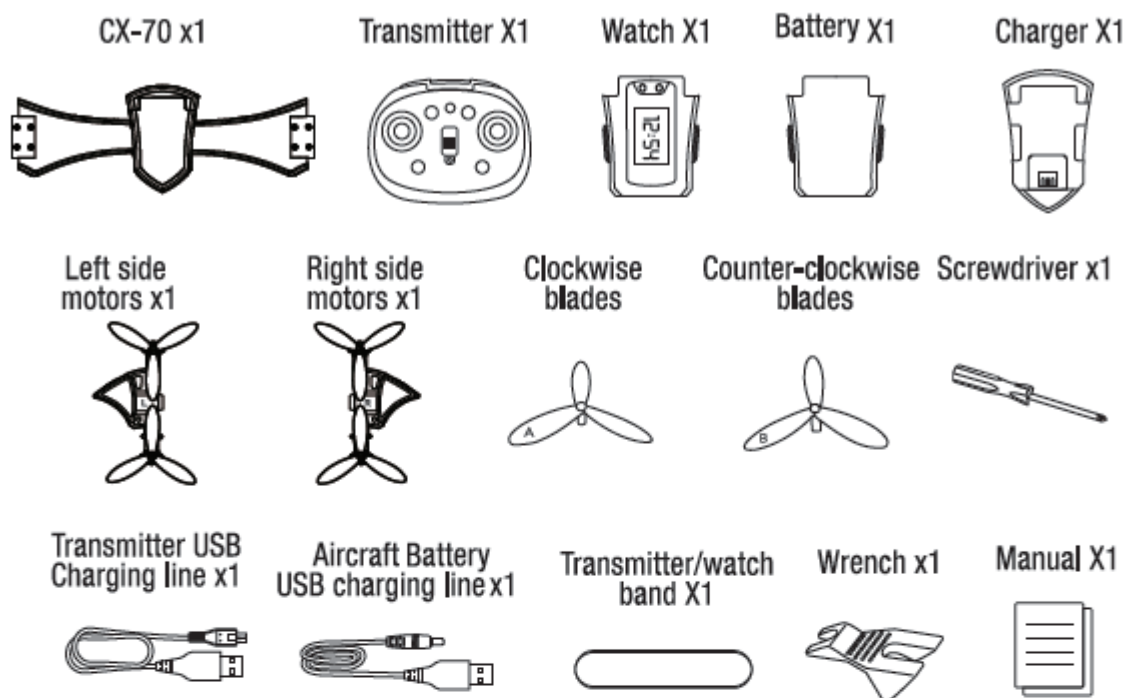
■ Basic aircraft specifications

Weight (with the battery):	102g
Aircraft size:	275*160*40mm
Aircraft Battery charging time:	70 minutes
Transmitter Battery charging time:	30 minutes
Aircraft Flying time:	5~6 minutes
Transmitter Operation time:	150 minutes
Suitable flying environment temperature:	0~60°C
R/C distance:	30m
WiFi range:	25m
Aircraft Battery:	7.4V 350mAh
Transmitter Battery:	3.7V 120mAh
Charging way:	USB charge connector

720P HD Camera

Picture format:	PNG
Picture resolution:	720X576
Video format:	MP4
Video resolution:	480X384
Frame rate:	30fps
Filed of view:	60°

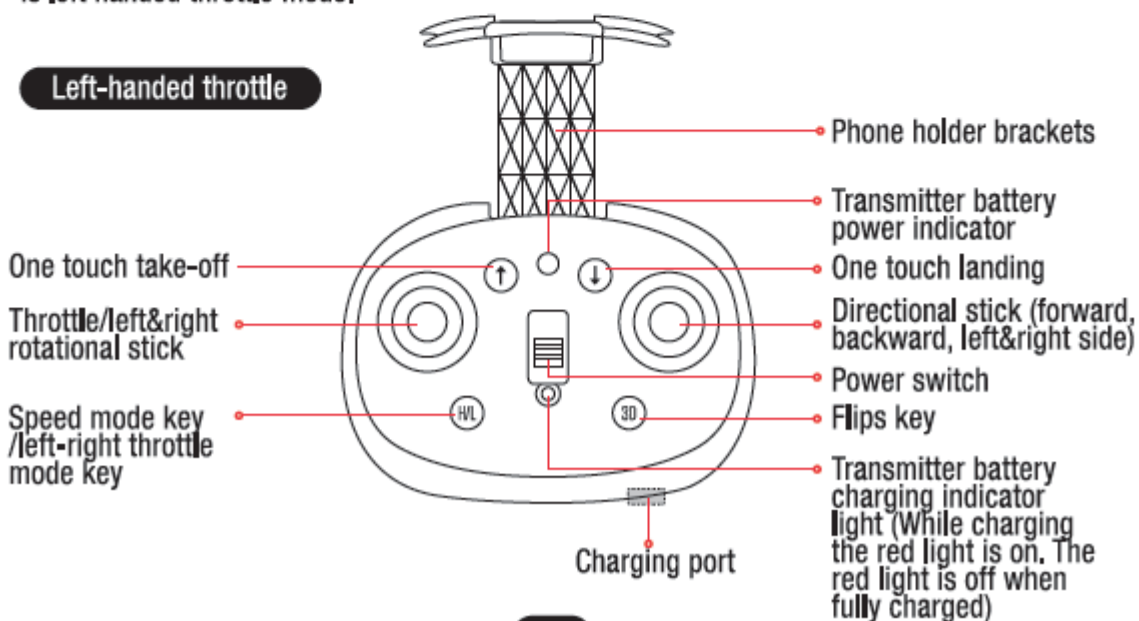
■ Box Contents



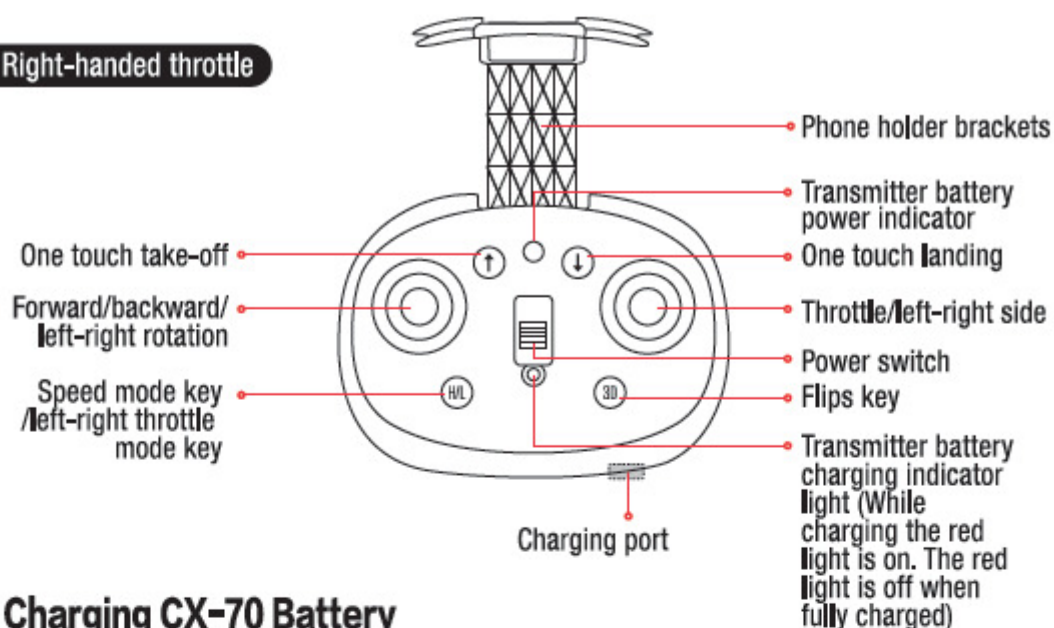
Transmitter

■ Left handed throttle mode

Turn off the transmitter. Then press and hold the speed mode button, turn on the power of the transmitter and it will automatically enter the right handed throttle mode. By default it is left handed throttle mode.

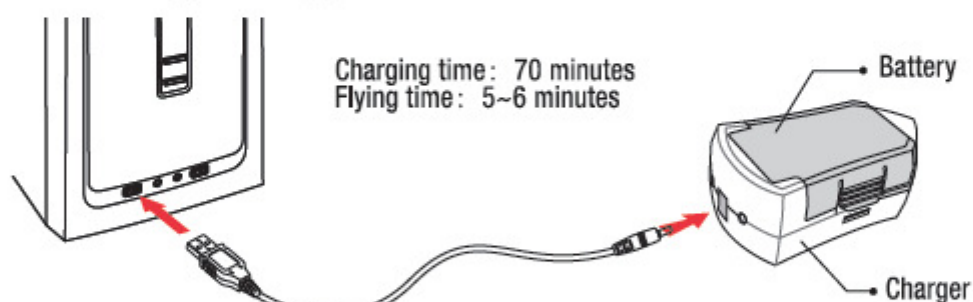


Right-handed throttle

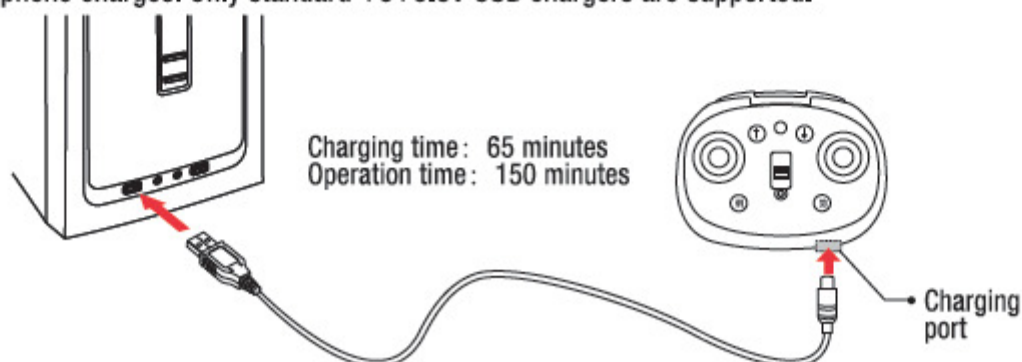


■ Charging CX-70 Battery

Connect the battery to the charger. Insert the charger into computer USB port or other USB chargers' ports. When charging, the USB light indicator will be on. Unplug the charger when the light is off. The USB charging cable can be connected to Apple chargers and other smart phone chargers. It also can be charged using portable batteries and car phone charges. Only standard +5+0.5V USB chargers are supported.



Turn off the transmitter and connect it to the charging line. Insert the charging line into computer USB port or other USB charging ports. When charging, the transmitter's red indicator light will be on. Unplug the charger when the light is off. The USB charging cable can be connected to Apple chargers and other smart phone chargers. It also can be charged using portable batteries and car phone charges. Only standard +5+0.5V USB chargers are supported.

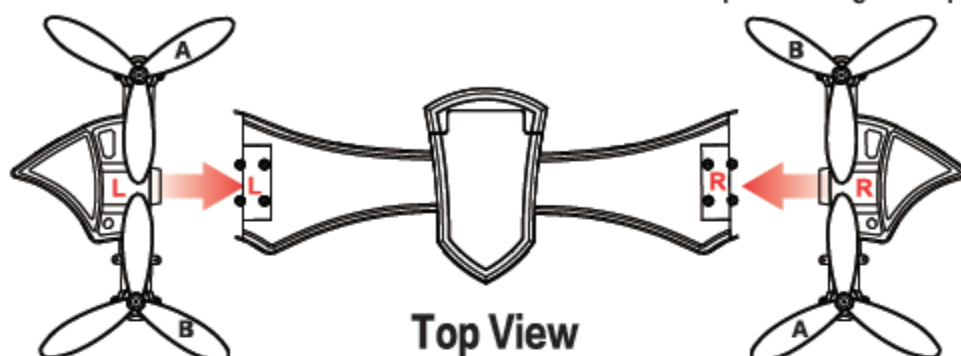


Note: only standard +5+0.5V USB chargers are supported.

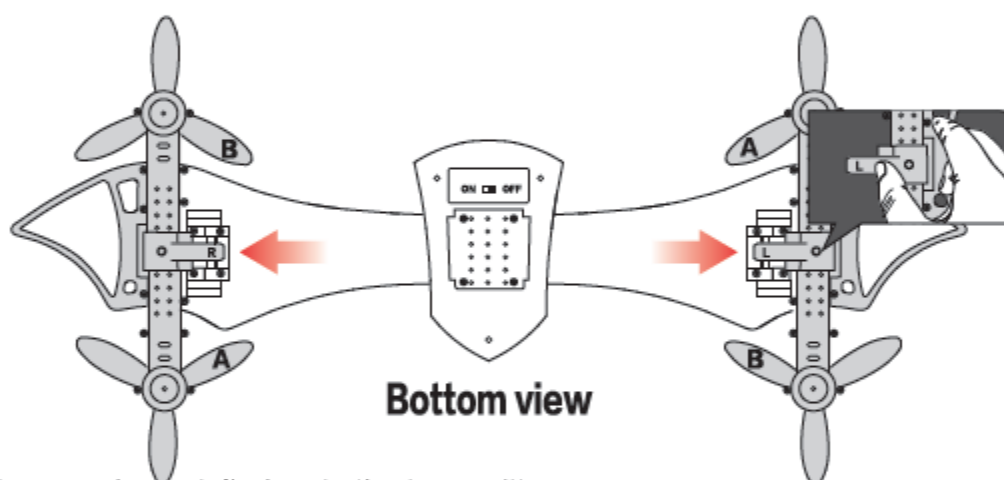
■ Installation and removal of motors

Motor installation: in order to correctly install the motors on to the aircraft frame. Firstly, secure the clips in order to fasten the motors to the frame.

Note: incorrect installment will result in the aircraft not performing as expected.

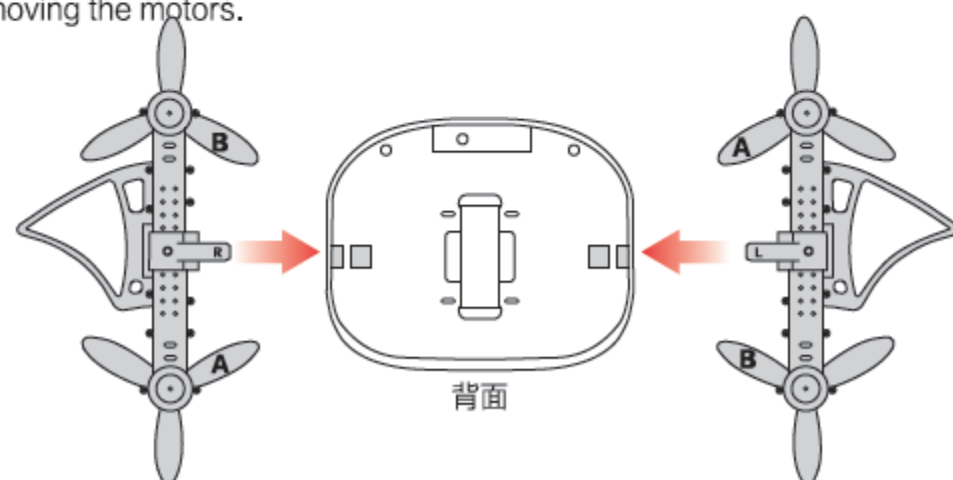


Motor removal: gently pull clips, afterwards slide motors out.

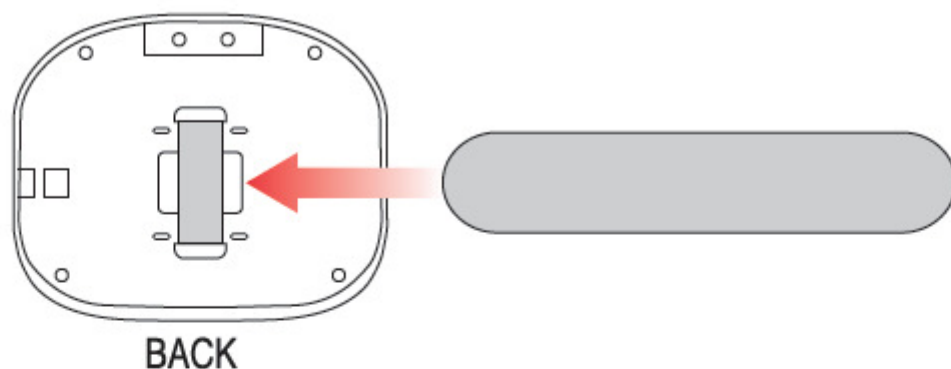


Motors can be installed on to the transmitter.

Warning: in order to prevent damage, do not use excess force when installing or removing the motors.

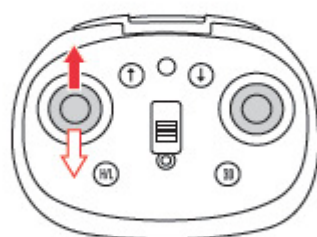


The watch band can be installed at the back of the transmitter, or it can be worn around your wrist or belt.

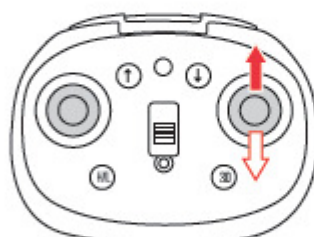


■ Pairing procedure

1. Place the battery on the flat surface and connect the battery.
2. Turn on the transmitter, then move the throttle stick **fully** up and **fully** down. The transmitter will emit beep when the throttle stick is **fully** up and another beep when the throttle stick is **fully** down. Pairing is successful.



(Left-handed throttle mode)



(Right-handed throttle mode)

■ Arming and disarming motors

Arming: after successful pairing procedure, arm the motors by pushing both sticks at the same time (push the left stick to the bottom-left corner and the right stick to the bottom-right corner) and the motors will start spinning. Slowly push the throttle stick up and the aircraft will ascend.



Disarming: after descending the aircraft, disarm the motors by pushing both sticks at the same time (push the left stick to the bottom-left corner and the right stick to the bottom-right corner) and hold it for 2 seconds, the motors will stop spinning.

■ Safety Hints

1. This product is suitable for experienced pilots over 14 years old.
2. Pay attention to the weather conditions: strong wind, snow, rain and fog. These are the potential risk factors which can lead to a loss of control.
3. Operate your aircraft in open spaces away from people and property.
4. When flying, keep away from the rotating blades.
5. After each flight recharge the aircraft battery.
6. Avoid flying next to power lines and mobile phone towers to avoid the interference.
7. Don't fly over the restricted areas (relate to the local laws and regulations).

② Download Software

iOS Phone Software Download Instructions

1. Download and Install the Software

Please download and install the software CX-70WiFi from APP Store, or scan the QR code (Figure 1).

2. WIFI Connection Instruction

- ① Turn the aircraft on and the indicators will begin to flash rapidly.
- ② Turn on WiFi and connect CX-70WiFi-XXXXXX. When the "√" appears indicating successful connection then exit the setting.
- ③ Open the software CX-70WiFi on your iPhone or iPad, then click the icon to enter the control interface.

When flying keep away from other WiFi signals as far as possible.



Figure 1



Figure 2



Figure 3

Android Phone Software Download Instructions

1. Download and Install the Software

Overseas User: Please download and install the software CX-70WiFi through the google play store, or scan the QR code shown, to download and install (Figure 2).

China User: Please download the software CX-70WiFi through alternative way, or scan the QR code shown, to download and install (Figure 3).

2. WiFi Connection Instruction

- ① Turn the aircraft on and the indicators will begin to flash rapidly.
- ② Turn on WiFi and connect CX-70WiFi-XXXXXX When the "√" appears indicating successful connection then exit the setting.
- ③ Open the software CX-70WiFi on your phone, then click the icon to enter the control interface.

When flying keep away from other WiFi signals as far as possible.

Warning

- ⊗ Turn off WiFi and reconnect it if there is no WiFi signal found in search menu.
- ⊗ Please completely exit the software when you need to change the battery. Choose the corresponding network for connection. Turn on the software again after successful connection.
- ⊗ WiFi range may reach 25 meters. Please do not exceed the flying range to keep normal flying.
- ⊗ Please keep away from people and animals and do not fly in places with inflammable, fragile and dangerous obstacles, it may cause unintended damages.
- ⊗ While flying do not put the throttle stick down immediately, otherwise the aircraft may fall down causing damages.

Instruction for software controls (left-handed throttle mode)



1. Open the CX-70WiFi software.
2. Click play to enter the controller interface.



3. Controller interface.

1. Return

2. Take picture 3. Record video

Videos and pictures will be recorded and saved on the phone's internal memory.

4. View pictures/videos

5. Gravity sensing control

When the gravity sensor is on, you still need to move the throttle stick to control the height and rotational direction. You can use the phone to control the aircraft left/right, forward/backward.

6. One touch balance calibration

If you encounter any unstable flying, place the aircraft on the flat level surface and click the one touch balance calibration icon. The LED indicators on the aircraft will flash constantly, indicating the successful calibration.

7. Speed modes settings

You can fly in 3 different modes and it is defaulted at beginners mode 30%.
Beginners mode - 30% Intermediate mode - 60% Advanced mode - 100%
To change modes click the sensitivity icon. The higher the sensitivity, the quicker the aircraft will respond.

8. VR screen

Clicking on the 'VR split screen' icon will cause screen to display 2 windows. Use the VR goggles to get a better WiFi real time video transmission.

9. Rotate the monitor

10. Controller interface off/on

After pairing the aircraft with the transmitter, clicking the icon will cause the controller interface to be deactivated and concealed. Leaving WiFi real time video transmission.

11. Trajectory flying

Clicking on the 'trajectory flying' icon will cause it to deactivate and conceal the directional stick, draw a line on the App interface (as shown in the picture).

Note: clicking on the time icon (located at the bottom of the screen) will cause a change to trajectory flight time. Increasing the number on the 'time icon' will enable the aircraft to fly longer distances.



12. One touch take-off

Place aircraft on a flat level surface and click the one touch take-off icon.
After taking off it can hover and keep height at approx. 1.5m above the ground.

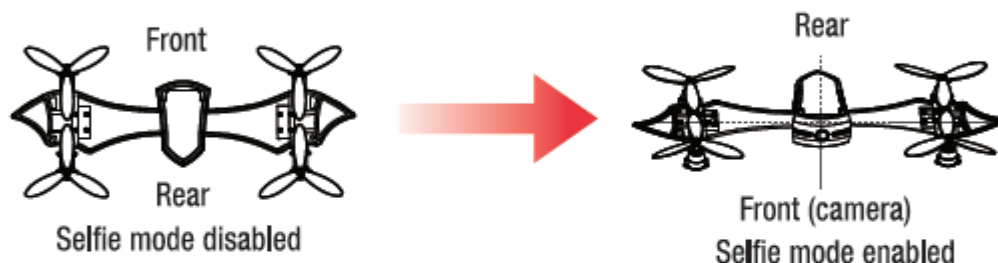
13. One touch flips

When hovering click the 'one touch flips' icon and after the aircraft will perform the front flip.

The Flip button is activated when the front Led lights are on, indicating sufficient battery power. When the aircraft's Led lights flash slowly, it's indicating that the battery power is low. When the battery power is low, the flip function is disabled automatically in order to avoid crashes and damages.

14. Selfie mode

When hovering click the 'selfie mode' icon, the aircraft will turn 180 degrees.
In this mode the direction of control will remain unchanged.



Note: the aircraft should be facing forward when selecting the selfie mode, so after the mode is selected the aircraft will turn to face the pilot.

15. One touch landing

After clicking one touch landing icon, the aircraft will gradually lose height and automatically land.

16. One touch emergency stop

In an emergency situation clicking the 'one touch emergency stop' icon will prevent the motors from spinning and will cause the aircraft to fall down.

Notice: using 'one touch emergency stop' function may cause damages to: the aircraft, people, animals or property.

17/18. Rotational yaw

21/22. Rotational yaw trim

25/26. Forward/backward

29/30. Forward/backward trim

19/20. Throttle

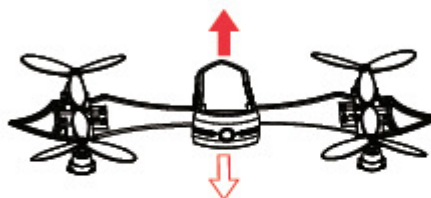
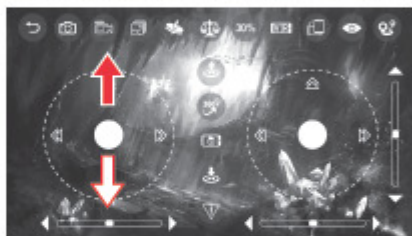
23/24. Left/right side

27/28. Left/right side trim

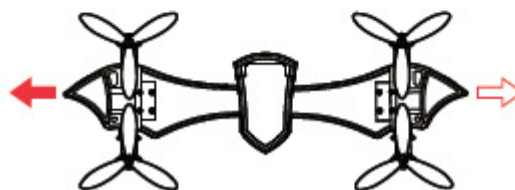
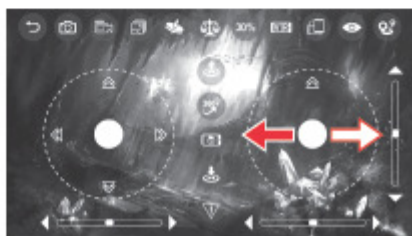
③ Mobile Phone App

1. Manual flying control (left-handed throttle)

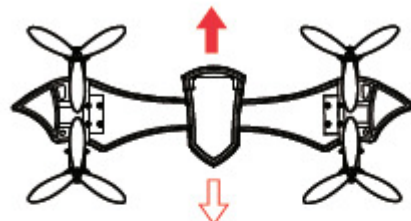
(1) Ascend/descend control: when the throttle stick is moved up the aircraft will ascend; when the throttle stick is lowered, the aircraft will descend.



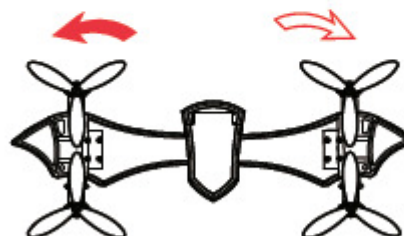
(2) Left/right side control: when the directional stick is moved left, the aircraft will fly to the left side; when the directional stick is moved right, the aircraft will fly to the right side.



(3) Forward/backward control: when the directional stick is moved up, the aircraft will fly forward; when it is moved down the aircraft will fly backwards.



(4) Rotational control: when the throttle stick is moved left the aircraft will rotate to the left; when it is moved to the right, the aircraft will move to the right.



Trim settings

- (1) Forward/backward trim: if the aircraft drifts forwards or backwards, while trying to hover adjust the trim setting until it gets stable hovering.
- (2) Left/right side fly trim: if the aircraft drifts to the left or to the right, while trying to hover adjust the trim setting until it gets stable hovering.
- (3) Rotational trim: if the aircraft rotates to the left or to the right, while trying to hover adjust the trim setting until it gets stable hovering.

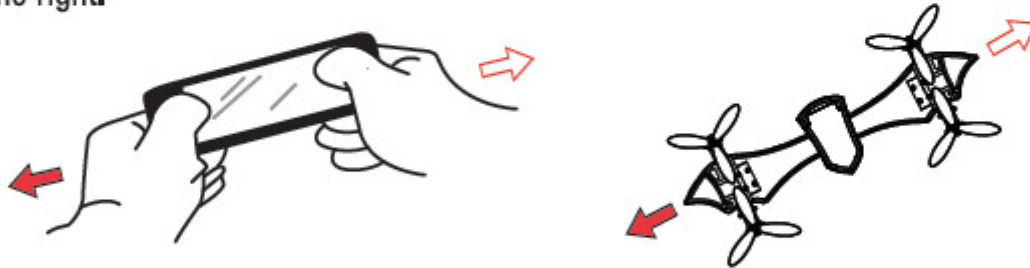
2. Gravity sensor control (left handed throttle mode)

The gravity sensor control is defaulted to OFF status. It will turn yellow after clicking the icon, indicating ON status.

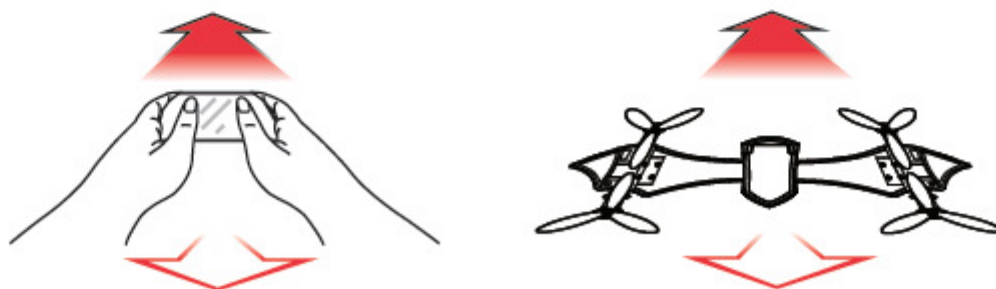


When the gravity sensor is on, you still need to move the throttle stick to control the height and rotational direction. You can use the phone to control the aircraft left/right, forward/backward.

- (1) Left/right side control: when the phone slopes to the left the aircraft will fly to the left; when the phone slopes to the right the aircraft will fly to the right.



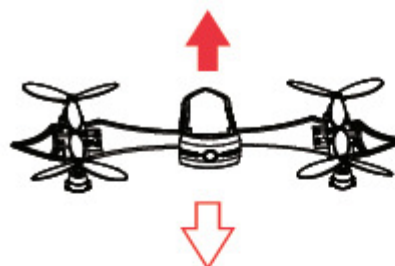
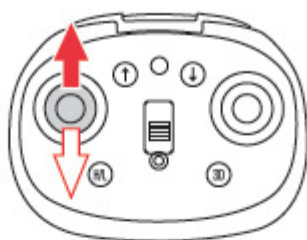
- (2) Forwards/backwards control: when the phone slopes forward, the aircraft will fly forwards; when it slopes backward, the aircraft will fly to backwards.



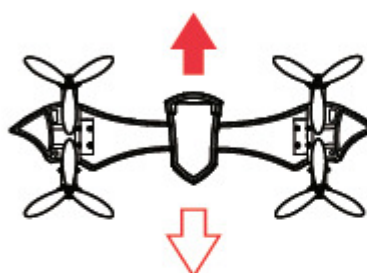
④ Transmitter control

(Left-handed throttle)

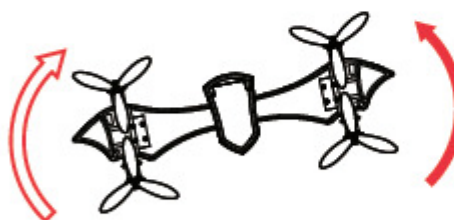
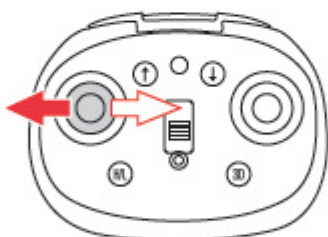
When the throttle stick is pushed up/down the aircraft will ascend/descend.



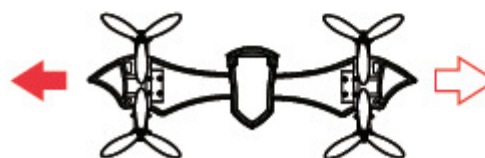
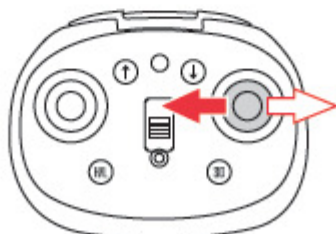
When the directional stick is pushed up/down, the aircraft will fly forward/backward.



When the throttle stick is moved left/right, the aircraft will rotate to the left/right.

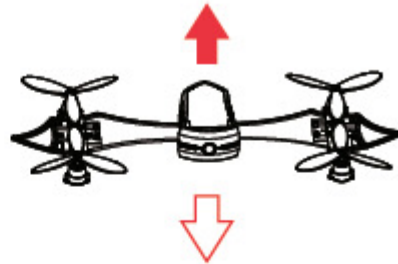
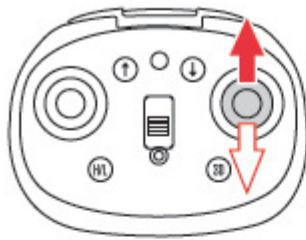


When the directional stick is moved left/right, the aircraft will fly to the left/right.

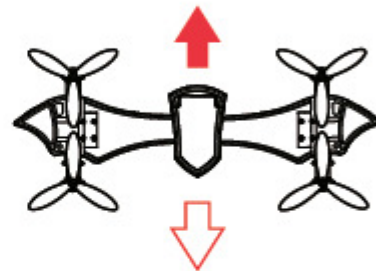
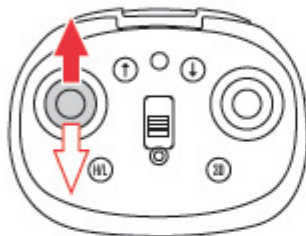


(Right-handed throttle)

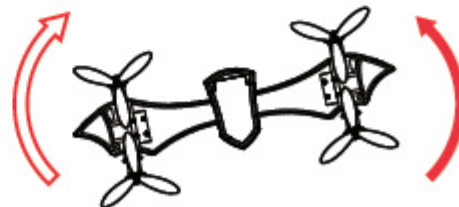
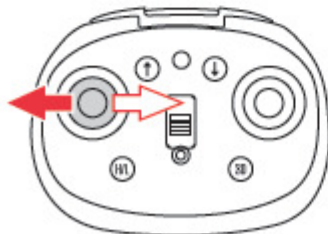
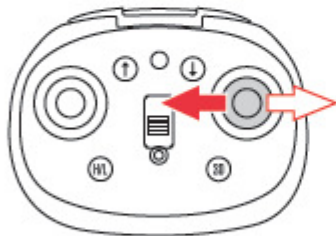
When the throttle is moved up/down, the aircraft will ascend/descend.



When the directional stick is moved up/down, the aircraft will fly forward/backward.



When the throttle is moved left/right, the aircraft will fly to the left/right.

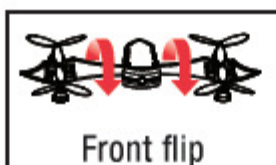


■ Speed modes setting

Beginners mode is set by a default.
Gently press the speed mode key and the transmitter will beep twice indicating intermediate mode;
Press the key again and the transmitter will beep 3 times indicating advanced mode.
Press the key one more time and the transmitter will beep once indicating the beginners mode.



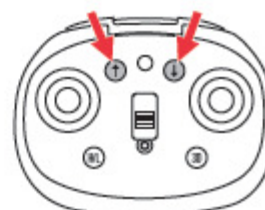
■ Flips (Left-handed throttle)



Observe the safety height - not lower than 3 meters above the ground. Flips can be performed when the aircraft's front Led lights are on, indicating sufficient battery power. Press the 3D button, the transmitter will start emitting beeps, then move the directional stick forward/backward to perform front or back flips.

■ One touch take-off & One touch landing

Press the one touch take-off button and the transmitter will emit one beep. The aircraft will take off, and hover at around 1.5 meter above the ground. Press the one touch landing button and the transmitter will emit one beep. The aircraft will land automatically.



■ Gyroscope Calibration

If your aircraft begins to be unstable during flight or drifts quickly to one direction, please calibrate the accelerometer.

(1) Turn on aircraft/transmitter and pair them. The aircraft should be placed on flat level surface.

(2) After pairing, pull the throttle stick and directional stick to the right bottom at the same time, the indicators on the aircraft will flash and when the indicators are lighting all the time, indicating successful pairing.



5 Landing

1. Slowly decrease the throttle until the drone lands. Alternatively use the one touch take-off/landing key on the transmitter.
2. Disconnect the aircraft battery and then turn off the transmitter.
3. Remove the battery from the aircraft.
4. Do not expose the aircraft to sunshine.

6 Watch Settings

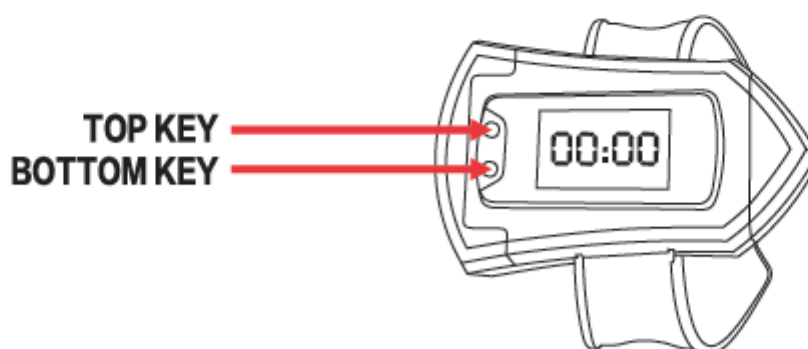
Press top key in order to view date. (Notice: display will switch from time to date after 2 seconds). Pressing the bottom key once, will change time/date mode into seconds. Pressing the bottom key once more together with the seconds mode will change back to the regular time display.

Press the bottom key and the display will show the date once. Press the bottom key twice and the screen will display seconds. Press the bottom key one more time and it will return back to the regular time display.

While in seconds mode alternatively press the top key and the seconds timer will skip the time to -00- seconds.

Setting the time/date.

Press the top key twice and after use the bottom key to set month. Press the top key again and after use the bottom key to set the day. Press the top key 4 times and after use the bottom key to set the hour. Notice: while setting an hour, the letter A or P will appear on the right hand side of the screen. A stands for AM. P stands for PM. Press the top key again and afterwards use the bottom key to set the minutes. After, press the top key again and the watch will return to its regular display screen. Displaying the time.



FCC Warning:

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

Remote control:

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.

Plane:

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 and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

CE Warning:

Hereby, Guangdong Cheerson Hobby Technology CO., LTD, declares that this aircraft is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

The full test of the EU declaration of conformity is available at the following internet address:
<http://www.cheersonhobby.com/>

Product is selling the whole Europe.

Restriction Use: this product could be used outdoor only.

Other information:

frequency band : (Remote controller: 2420-2460MHz; Plane: 2412-2472MHz)

the maximum RF Power: (Remote controller: 8.24dBm; Plane: 18.72dBm)

Manufacturer's Name: Guangdong Cheerson Hobby Technology CO., LTD

Manufacturer's Address: Fengxin No. 2 Road & Laimei Road, Fengxin Industrial Zone, Chenghai, Shantou, Guangdong province, China

Contact person: JIA HUA CHEN

Tel: +86-0754-85872540

Importer's Name: **El Corte Inglés S.A**

Importer's Address Hermosilla 112, 28009 Madrid, Spain