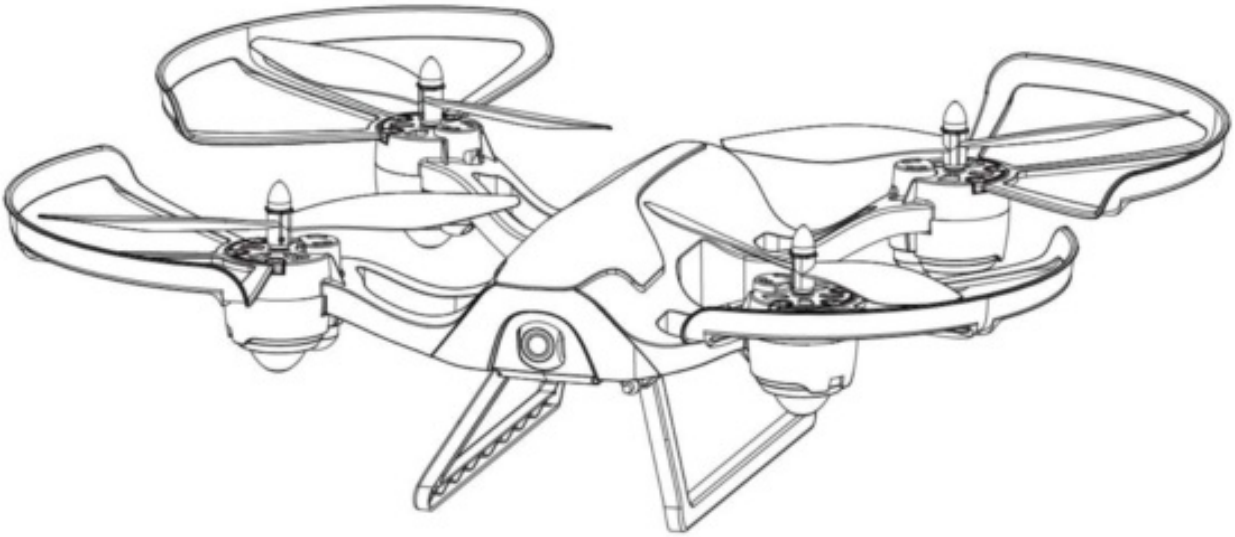
HORNET TR003F Drone with 5.8G LCD Screen Real Time Transmitter Instruction Manual

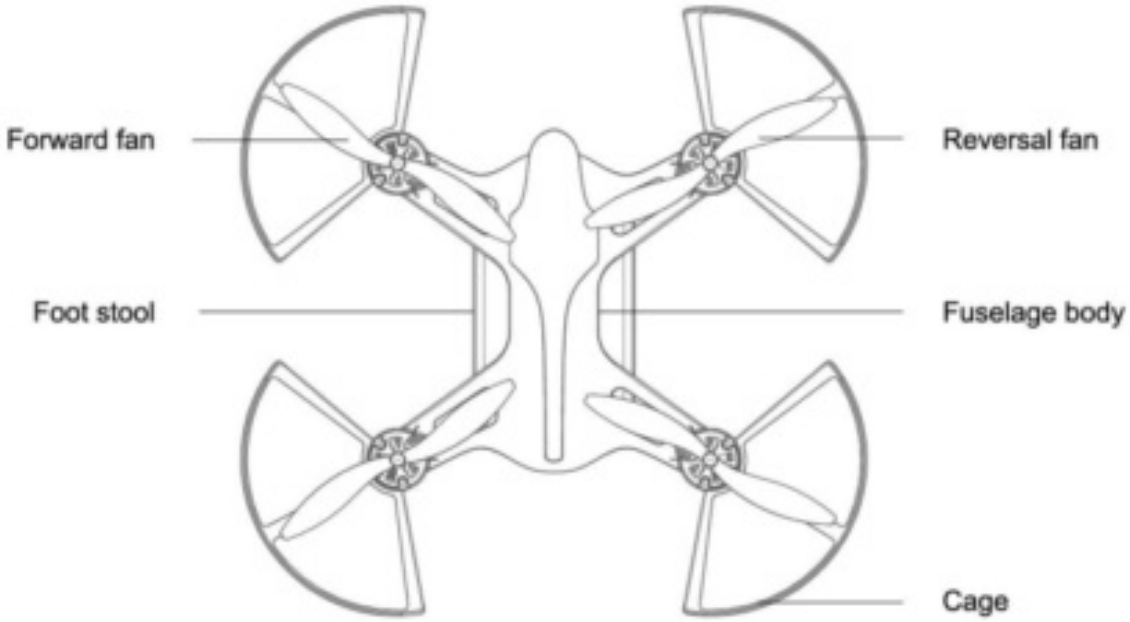
TR003F Drone with 5.8G LCD Screen Real-Time Transmitter Instruction Manual

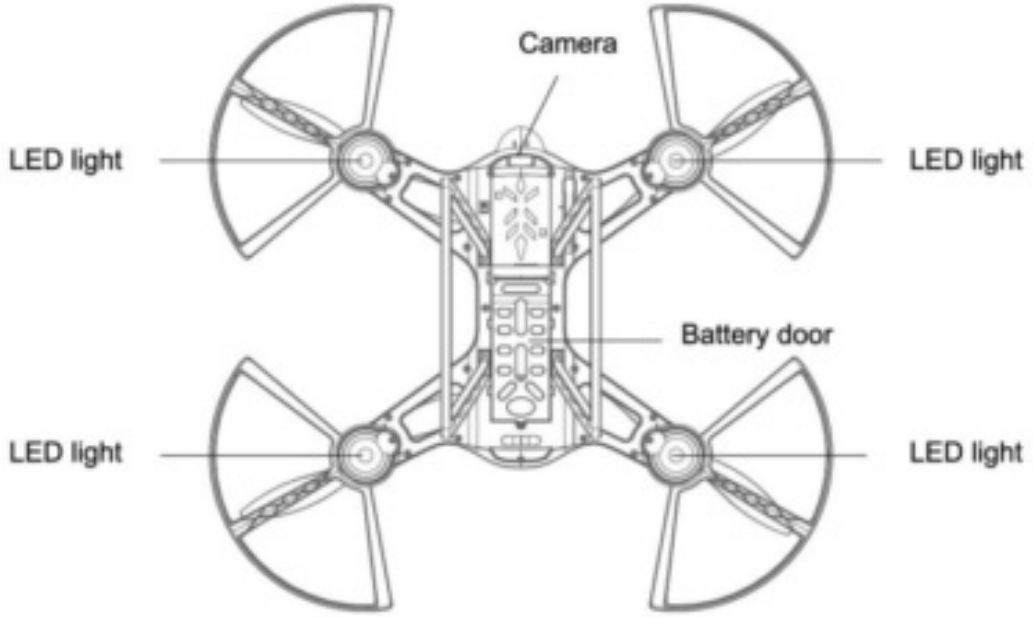


Contents

Component name

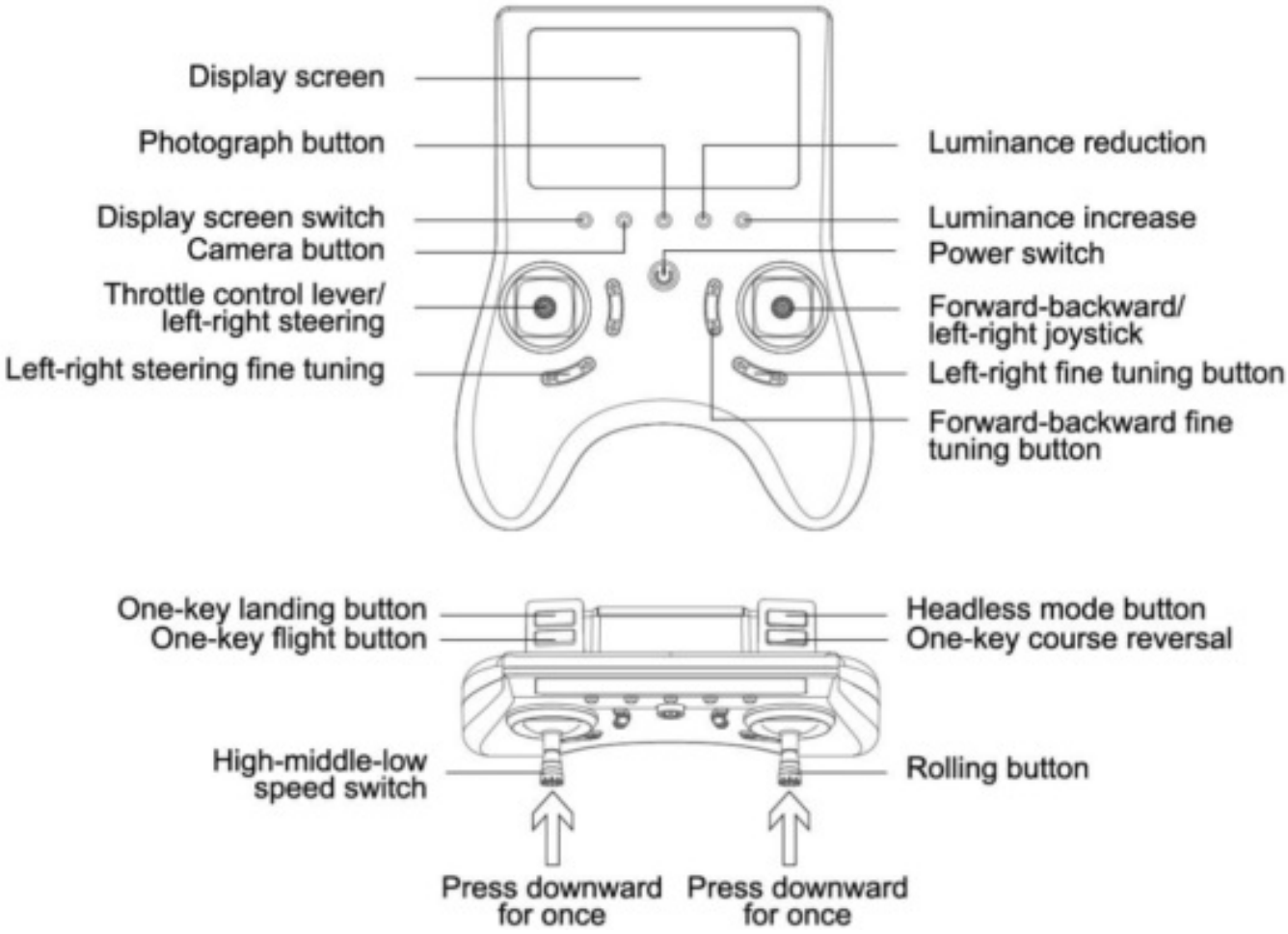
1. Aircraft



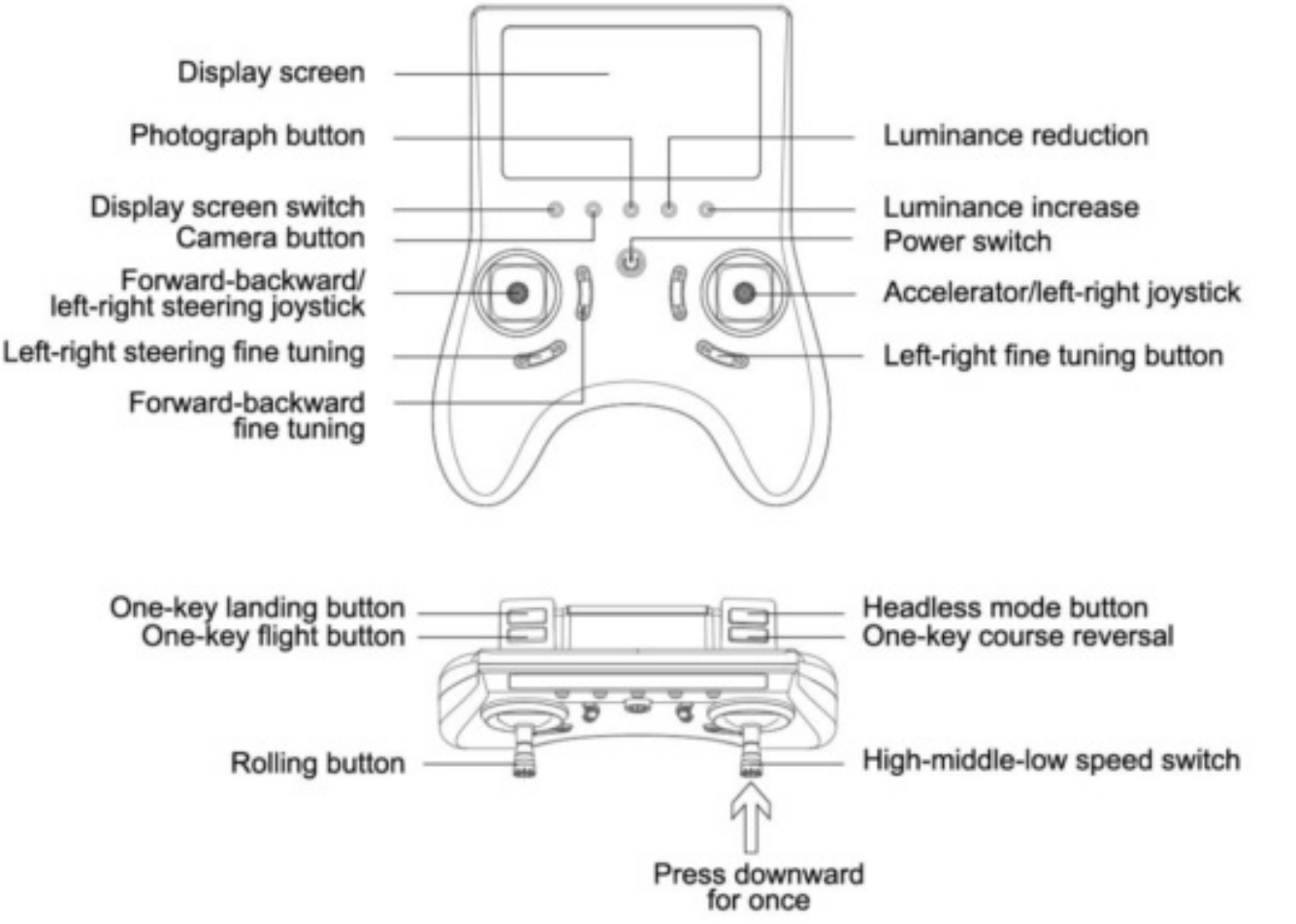


Remote control

Left-hand accelerator (mode 2)



Left-hand accelerator (mode 1)



Attentions

1.0fficial Statement

1. This device is a sophisticated piece of technology that combined professional knowledge such as mechanism, electronics, aerodynamics, and HF transmitter, thus must NOT be used as a toy. Users must act caution and operate safely: if not, it may lead to severe accidents which result in critically physical injury or economic losses, under this circumstance we manufacturers claim no responsibility as we are not able to monitor the process of the installation and operation carried out by the user.
2. This device is best to be operated by experienced UAV users whose age is above 14.
3. Only to be operated in legal UAV operating space according to local laws.
4. The manufacturers will claim no safety responsibility relevant to the operation, usage, and control of the device after it is sold.
5. We authorized the dealers to provide technical support and after-sale service, should there be any issue on operating or need for reparation, please contact your local dealer.

Precautions

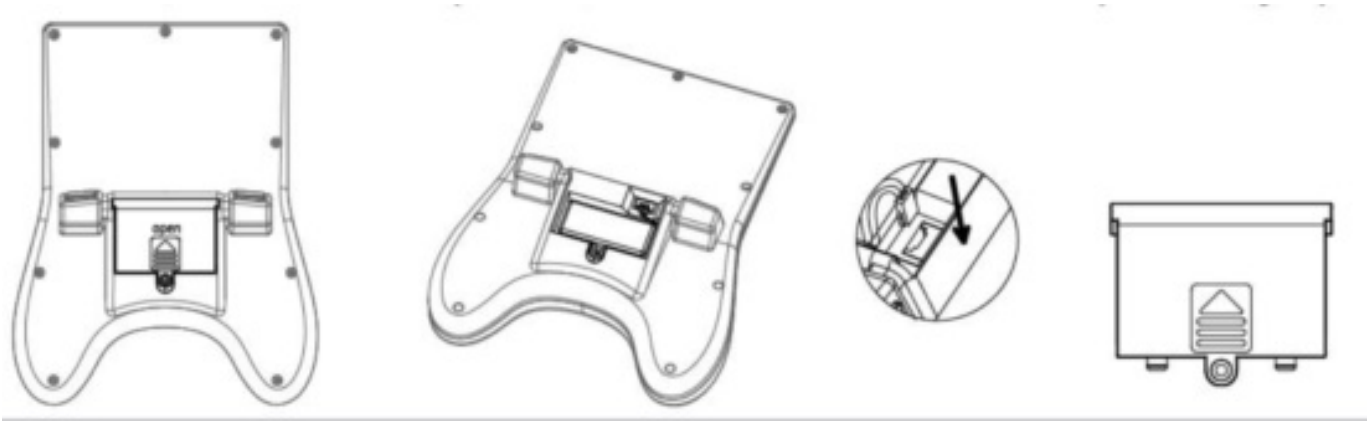
1. Keep away from obstructions or crowds. UAV poses a potential threat since it's uncertainty on flight speed and conditions. Must keep it away from crowds, buildings, HV cables, etc. when inflight, to ensure the safety of people and properties around the user. This device is also not capable of flying under stormy, rainy, or thundering weather conditions.
2. Do not operate in a humid environment. Inside of the device is installed various kinds of sophisticated electronical and mechanical components, thus it's essential to keep the device dry at all times to avoid any components malfunction due to the humid environment.
3. Operate safely The user should operate the UAV in good self-condition with caution. Operate when fatigued, in a poor mental state or with poor handling could result in an accident.
4. Keep away from high spinning unit. The user and crowd must keep away from the propellers when they are in high spinning state, to avoid any danger or damage.
5. Keep away from heat source This UAV is consist of metal, plastic, electronical components, etc., heat source or direct sunlight could bring deformation or damage to the device.

Before flight

1. Choose a wide-open space to operate, we suggest at least 8m(L) x 8m(W) x 5m(11).
2. Make sure both batteries on the remote controller and the device are full.
3. Make sure the joysticks on the controller are in the lowest end before operating.
4. When turning on the device, the right sequence applies. The wrong sequence would result in a UAV being out of control, thus possible damage. Please develop a habit to follow the right turn on/off sequence.
5. Make sure the battery is solidly connected to other components like the motors. The continuous vibration could loosen the connection which results in losing control of the device.
6. Crashing could affect the motors or result in noise, therefore affecting the flying conditions or even device breakdown. Should that happen, contact the local dealer as soon as possible to change the components, so the device could recover its groove.

Remote control assembly

Installation method of batteries: use a manual screwdriver to rotate in counterclockwise and open the battery cover, connect remote control power to batteries, close the battery cover, and lock the screws of the battery cover tightly.

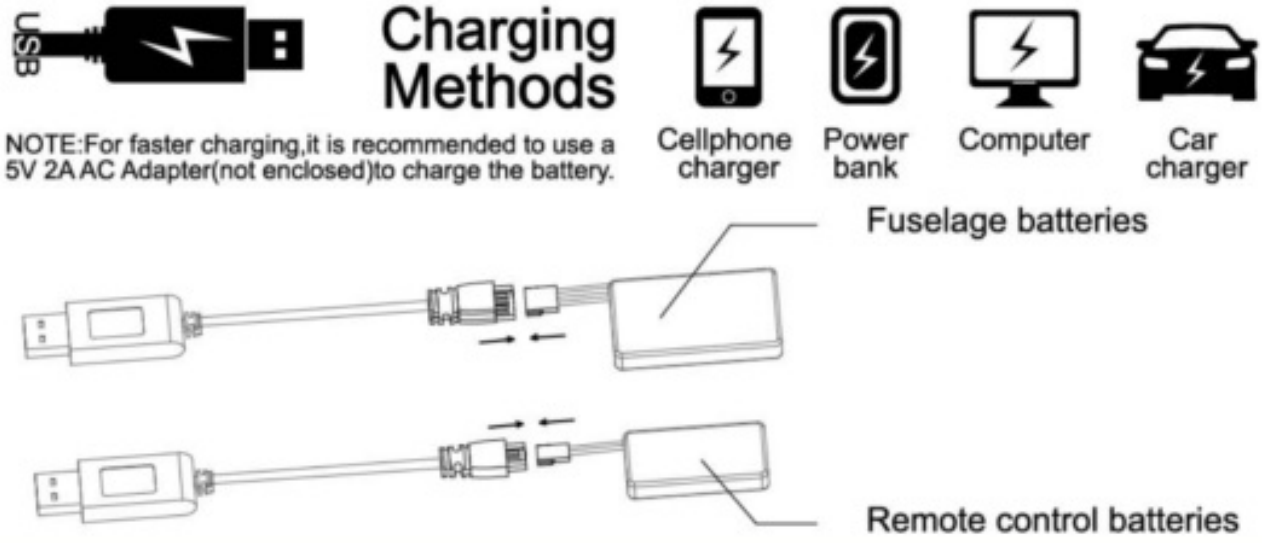


Notes:

1. The battery plug should be installed in a position to prevent poor power contact.
2. Please unplug the battery plug without using the remote control for a long time.

Battery charging instructions

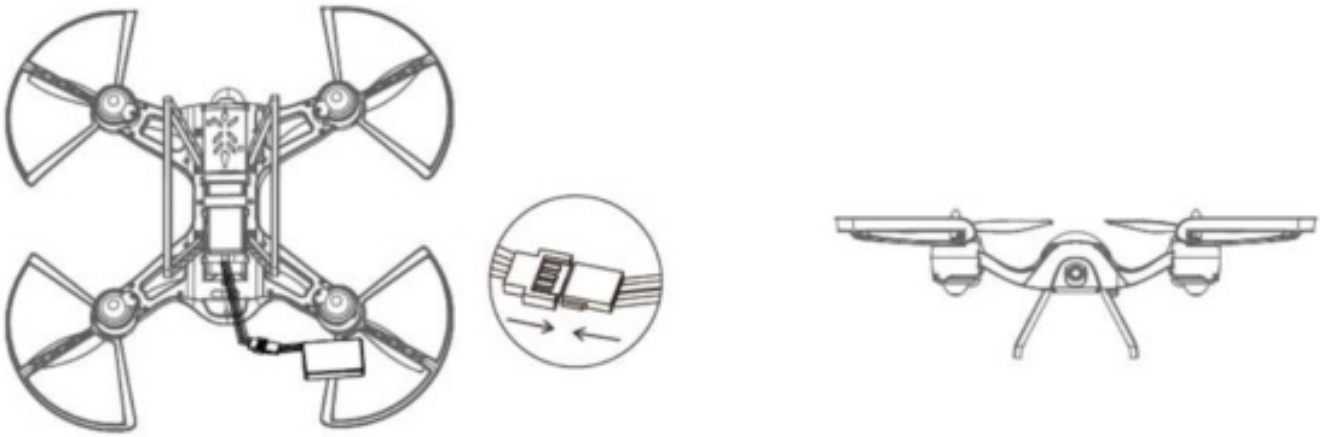
1. Please connect aircraft batteries or remote control batteries with USB and connect to any charging USB socket in the picture below.
2. When aircraft batteries are charged, USB red indicator lightens up. When batteries are fully charged, the green indicator lightens up. The battery charging time is about 70-85 min.
3. When remote control batteries are charged, the indicator lightens up. When batteries are fully charged, the indicator crushes out. The battery charging time is about 65 min.



- ‘The product accessories have built-in lithium batteries. Please pay attention to safety matters as using.
- Don’t place charged batteries in high-temperature and heated places, such as naked flame or electric heating apparatus. Otherwise, damage or explosion may take place.
- ‘Don’t use batteries to strike or beat hard body surface.
- Don’t soak batteries in water. Batteries should be placed in a dried place.

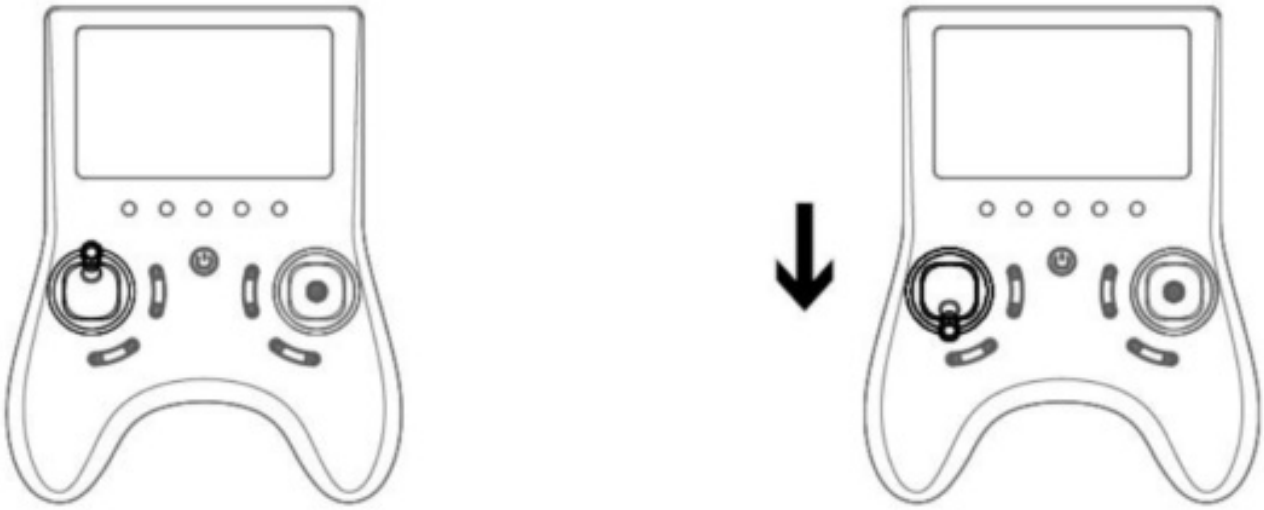
Flight steps

1. Install aircraft batteries in the battery box of the aircraft, connect to the power of the craft, but the switch on “ON”, place the aircraft on the smooth ground, and show a quick flashing state for the aircraft fuselage.



Important hints after the aircraft is electrified, the gyroscope on the dash receiver needs to revise the horizontal plane and ensure horizontal ground, thus the aircraft can enter into a normal remote control state.

2. Left-hand accelerator mode 2 Install batteries in the remote control, press the power switch, push the accelerator to the maximal control distance and then put it in the bottom. The remote control indicator is normally on and enters in the normal remote control state. The frequency connection is completed. The aircraft can fly normally.



3. Right-hand accelerator mode 1 Press fine-tuning button downward and press the power switch, flash the remote control indicator slowly push the accelerator to the maximal control distance and then put it at the bottom. The remote control indicator flashes slowly and enters the normal remote control state. The frequency connection is completed. The aircraft can fly normally.

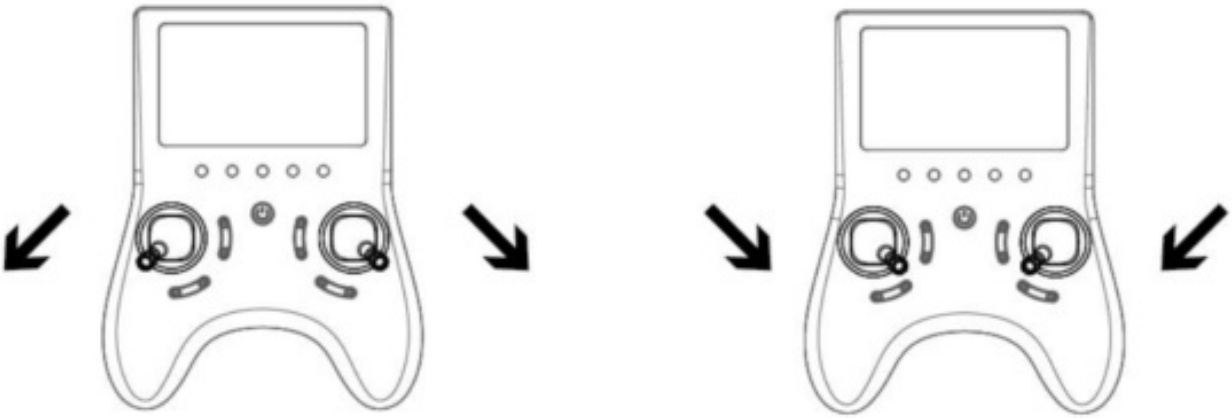
Press the button tightly and press switch to turn on simultaneously.

Calibration specification of the aircraft

The left-right joystick of the remote control is pushed to the left corner. The aircraft fuselage indicator flashes. After the fuselage recovers to normally on, it means to finish calibration. The aircraft can be used in normal(notes: left-right mode has the consistent operation).

Unlocking/locking function of the aircraft

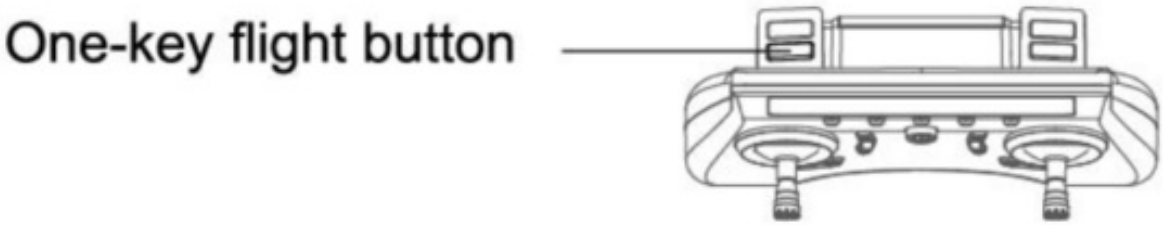
The aircraft is placed on the plane. The Left and right rockers of the remote control are pushed to the bottom from toeing out or toeing in, respectively. The paddle of the aircraft rotates. At the moment, the aircraft is unlocked and it can enter into the flight mode. Then left and right rods of the remote control is pushed to the bottom from toeing out or toeing in, respectively, and the paddle of the aircraft stops rotating. At the moment, the aircraft is locked.



Notes: After the aircraft is unlocked, it can operate normally. Otherwise, it can't be operated.

One-key flight function

The aircraft is placed on a horizontal plane. The Left and right rockers of the remote control are pushed to the bottom from toeing out or toeing in, respectively. At the moment, the paddle of the aircraft rotates. After pressing the left corner button of the remote control, the aircraft takes off from the ground. The hovering height is 1.2-1.5m.



One-key landing/emergent stopping function

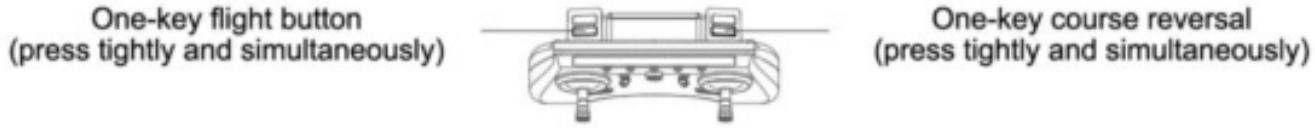
The aircraft flies in the air. After pressing the one-key landing function button, the aircraft lands on the ground slowly.

Emergent stop:

If there is an emergency, please stop rotating the paddle of the aircraft and press the “one-key flight/one-key course reversal” button simultaneously.

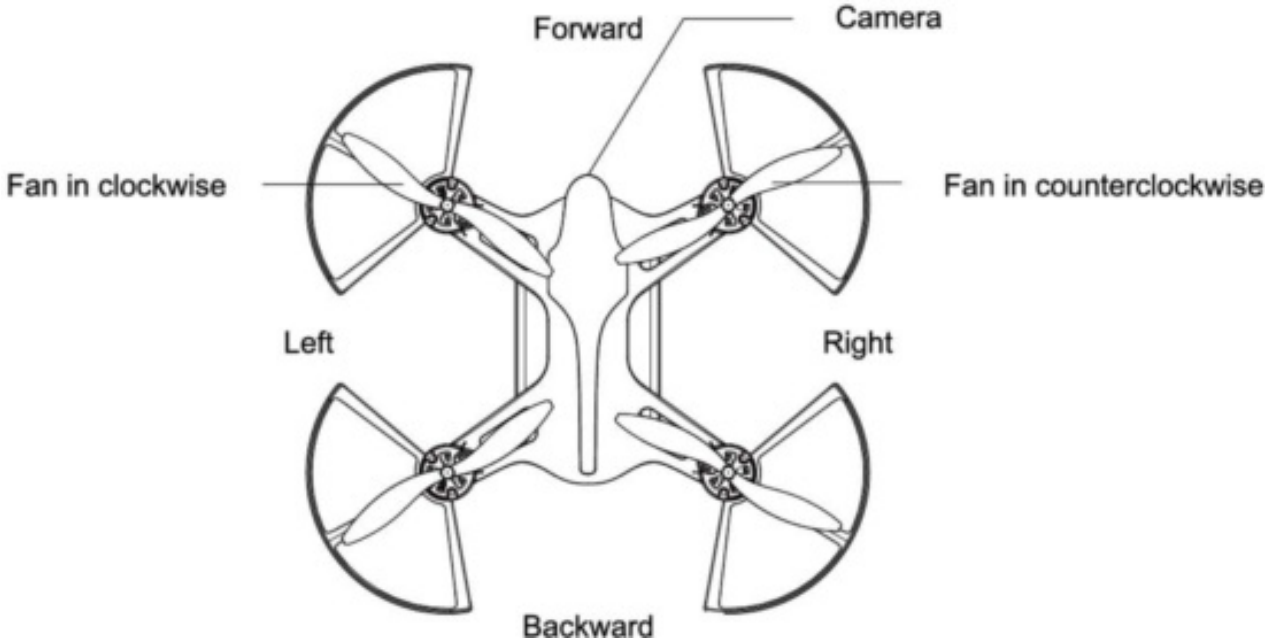
Notes: If the aircraft flies in a high position, don’t operate it in this way, because this makes the aircraft lose flight power, resulting in air crashes in high altitudes.

1.



Additional remarks before the flight

1. The camera directly on the fuselage shell is the front direction of the aircraft.

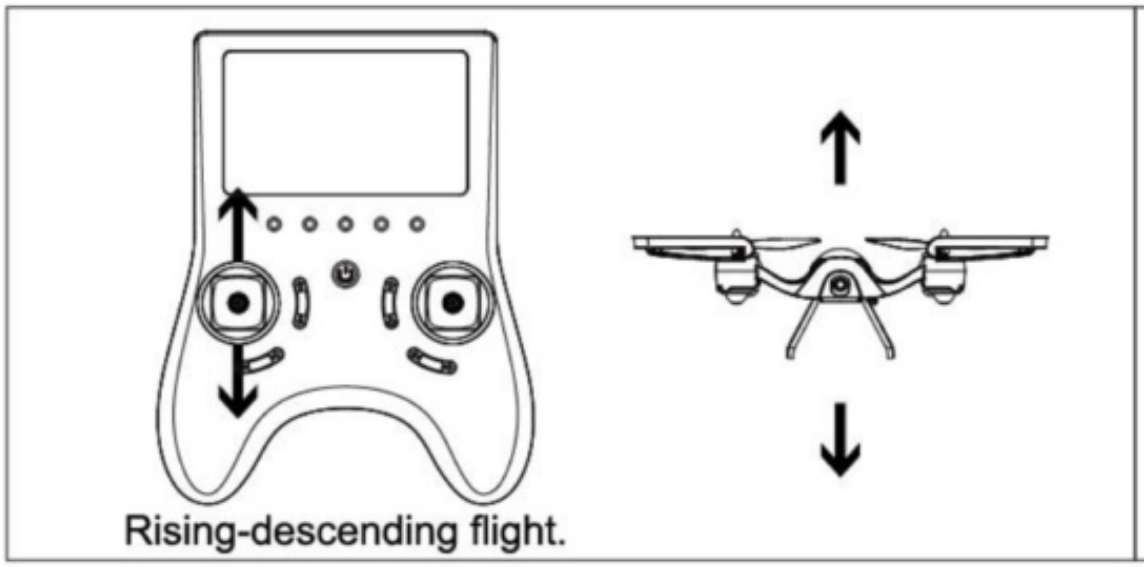


2. After the aircraft is electrified, check the rotation direction of the propeller. Left front direction/right back direction rotates in clockwise of the propeller. Right front direction/left back direction rotates in counterclockwise of the propeller
3. If The aircraft is partial to one side in the flying process, remote control fine tuning can be used to adjust.

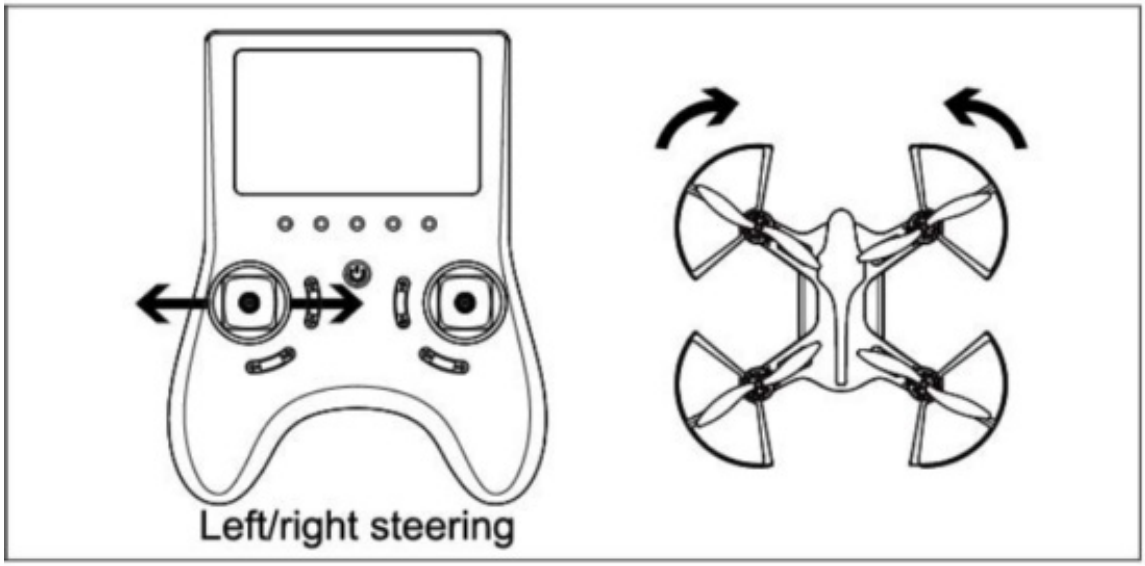
4. In the flying process, when the aircraft has sufficient electric quantity, the fuselage indicator turns to flash from normally on to warn. At the moment, players should fly back the aircraft within 30sec to replace batteries or charge them before continuing to fly.
5. When there is a low voltage as working the remote control and remote control gives out didi-didi-didi-, players should fly back the aircraft in time to continue to fly after replacing batteries.

Flight control and fine-tuning
Left-hand accelerator mode 2

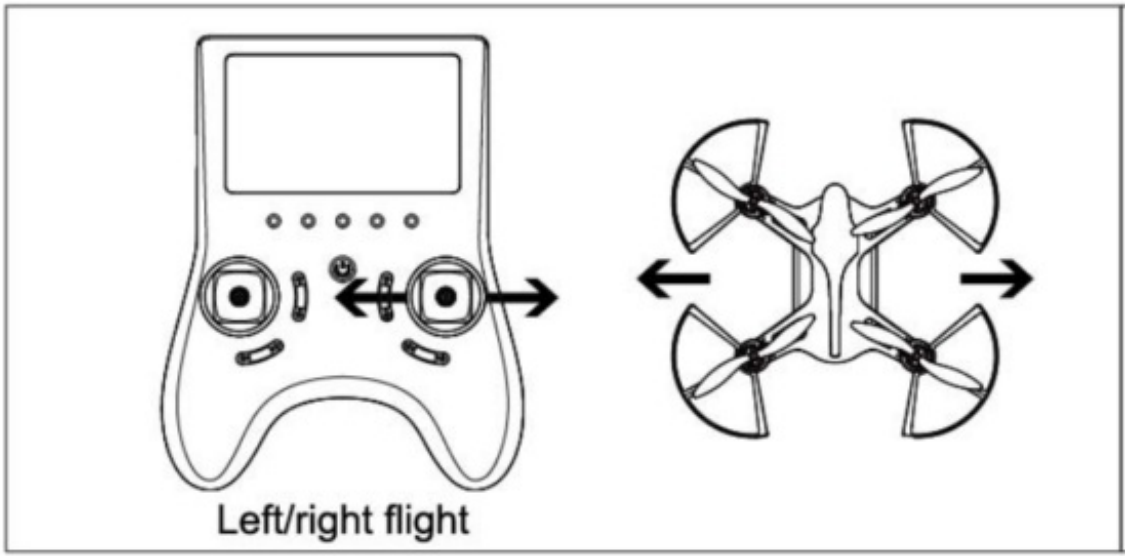
1. When the accelerator joystick is operated upward and downward, the aircraft flies upward and downward simultaneously.



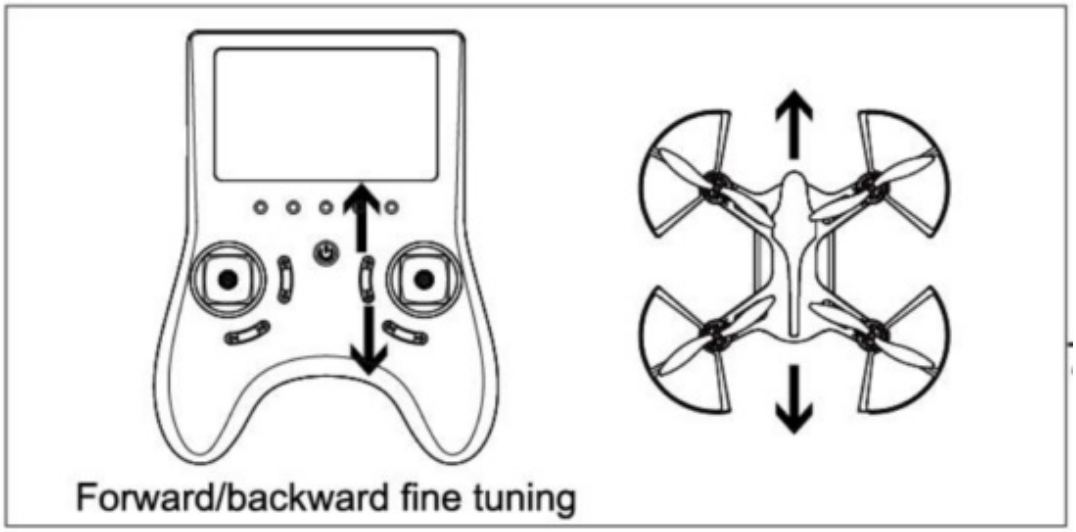
2. When the steering joystick is operated in left and right directions, the aircraft head flies in left and right directions.



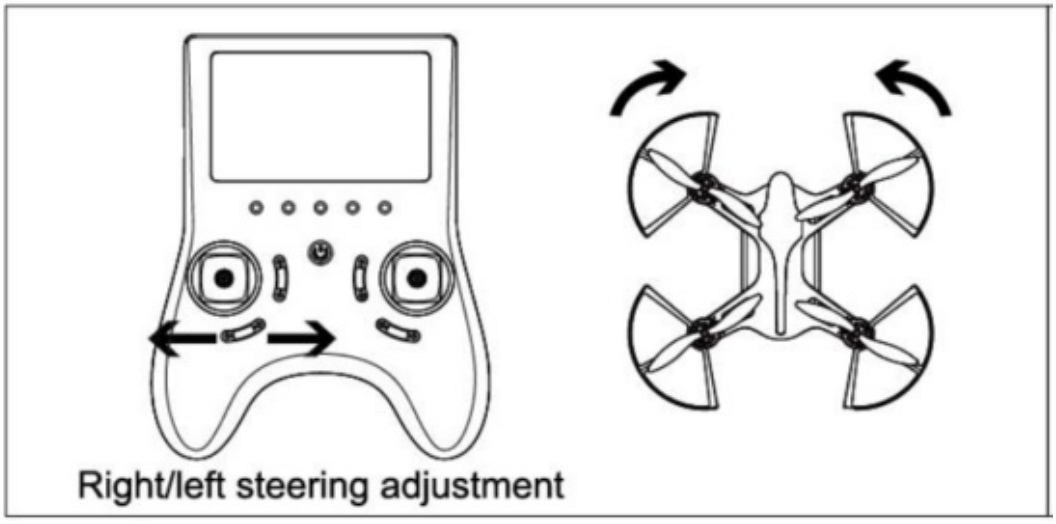
3. When the left-right joystick is operated left and right, the aircraft flies in left and right directions.



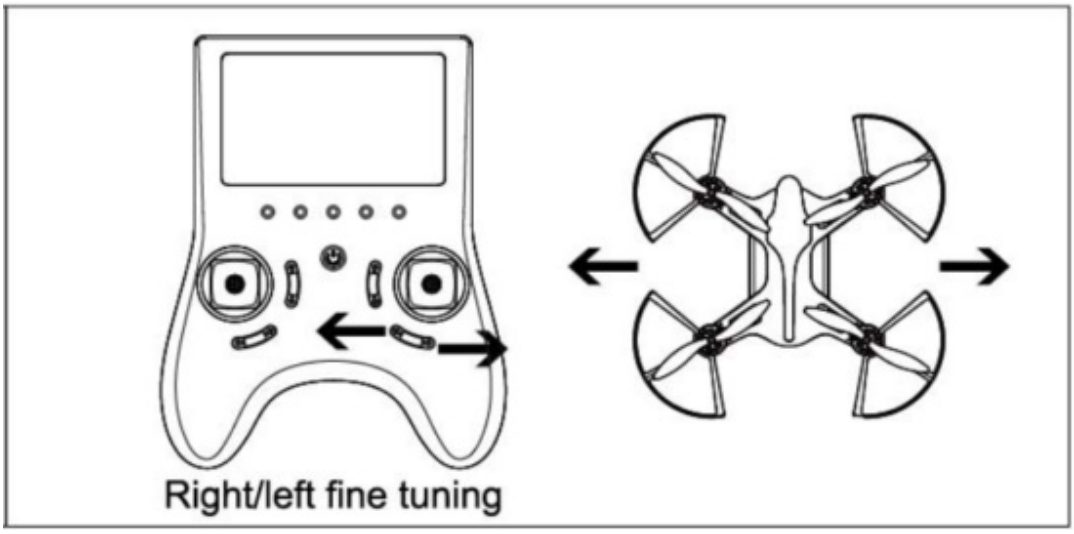
4. When the forward-backward joystick is operated upward and downward, the aircraft flies forward and downward simultaneously.



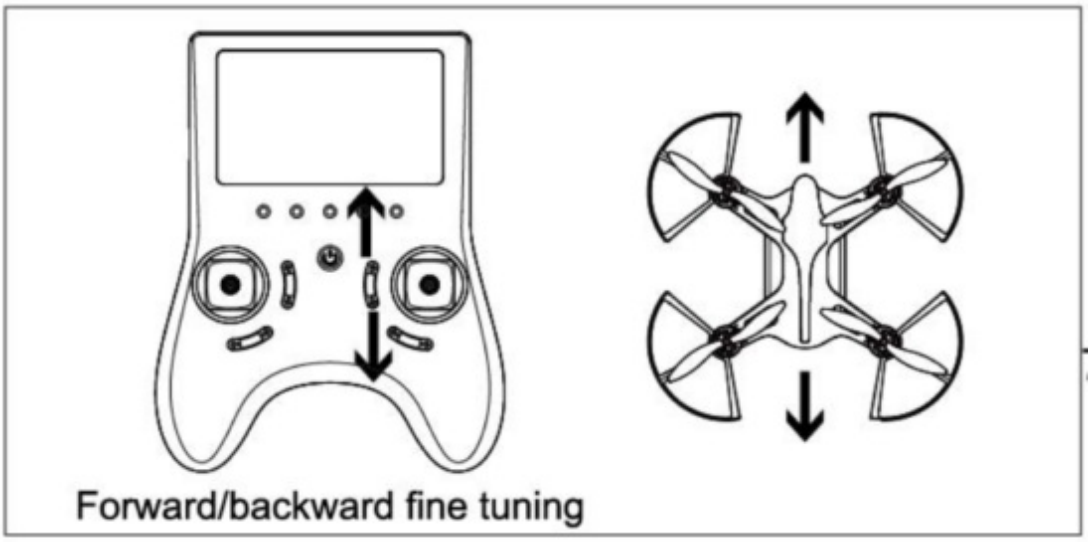
5. Steering fine-tuning is adjusted. As a flight, the head is partial to the left. Fine-tuning is adjusted to the right. On the contrary, fine-tuning is adjusted to the left.



6. Left-right fine-tuning is adjusted. In flight, the fuselage is partial to the left. Fine-tuning is adjusted to the right. On the contrary, fine-tuning is adjusted to the left.
7.

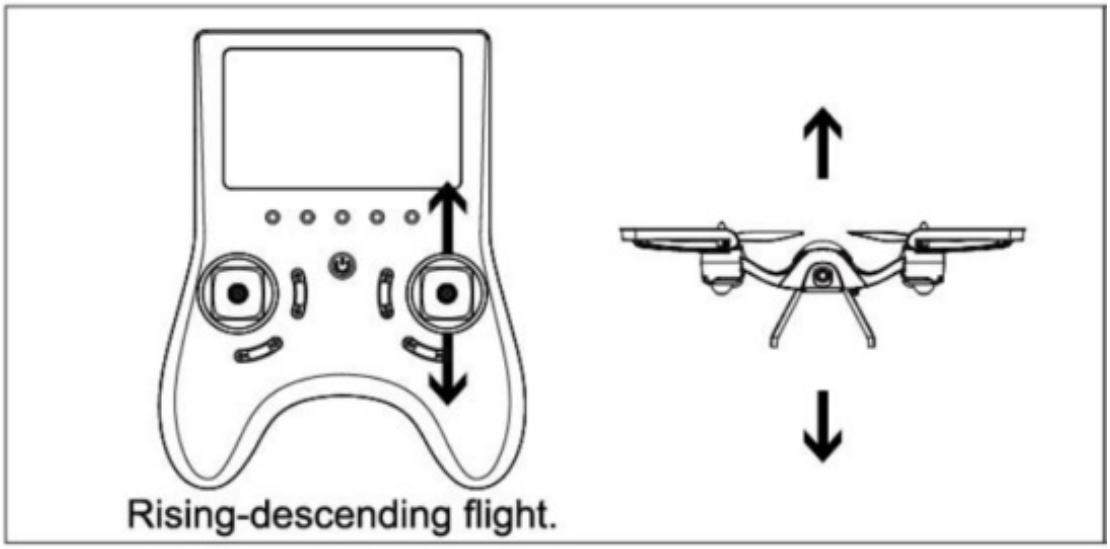


Forward-backward fine-tuning is adjusted. As a flight, the fuselage is partial to the forward. Fine-tuning is adjusted backward. On the contrary, fine-tuning is adjusted upward.

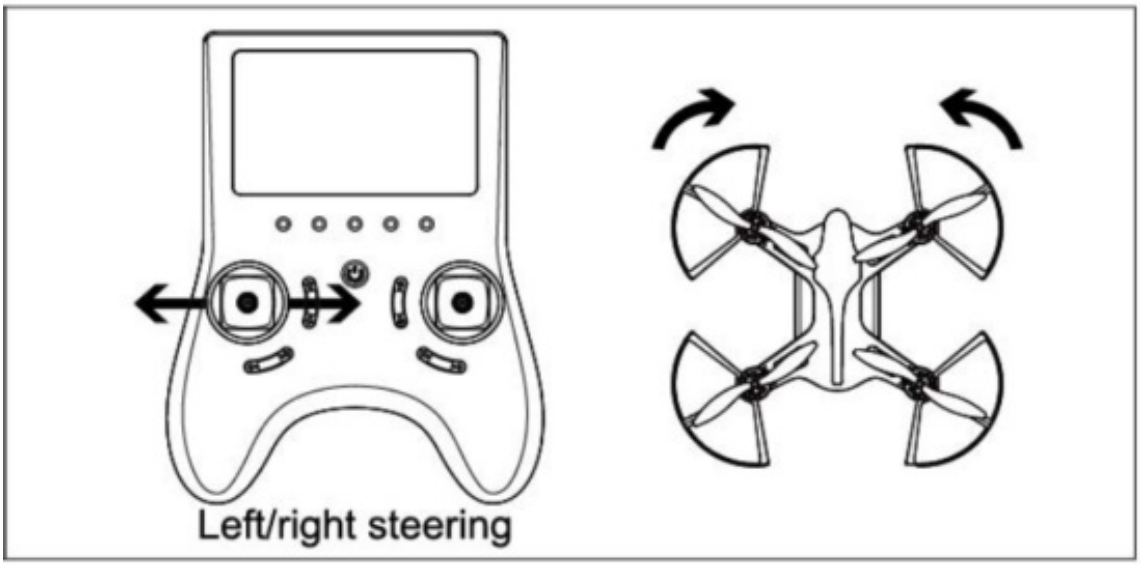


Right-hand accelerator mode 1

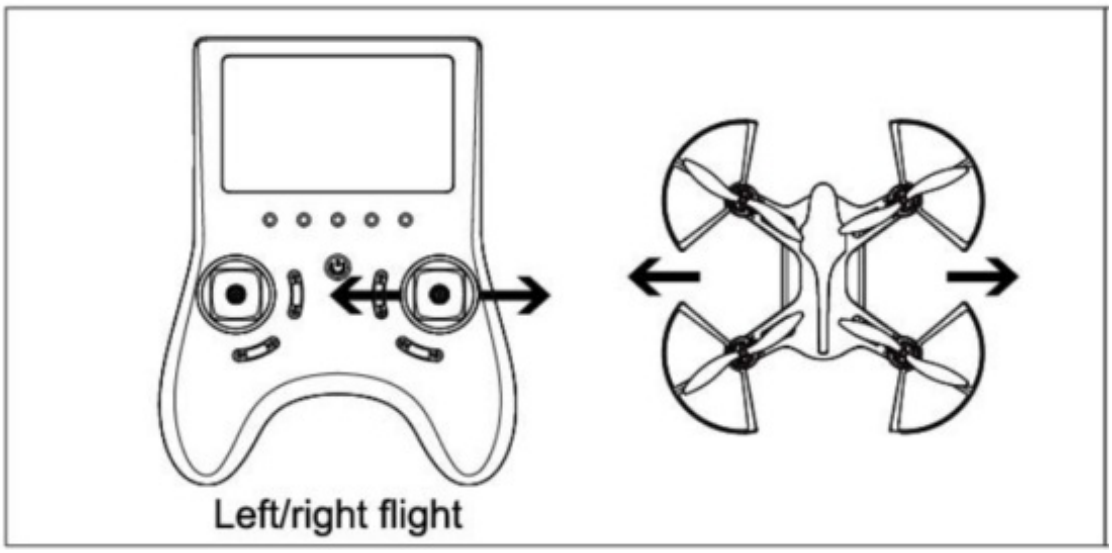
1. When the accelerator joystick is operated upward and downward, the aircraft flies upward and downward simultaneously.



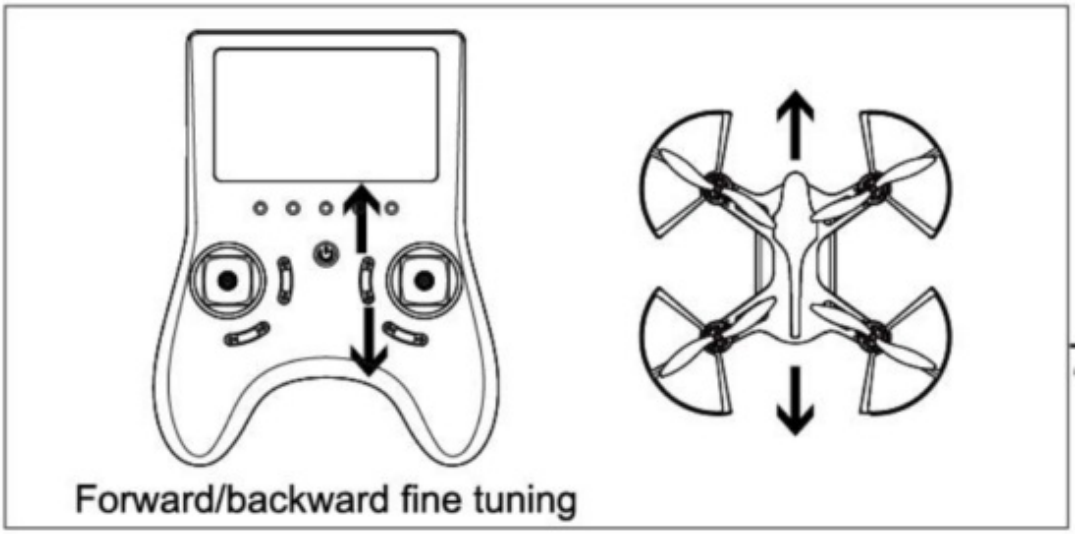
2. When the steering joystick is operated in left and right directions, the aircraft head flies in left and right directions simultaneously.



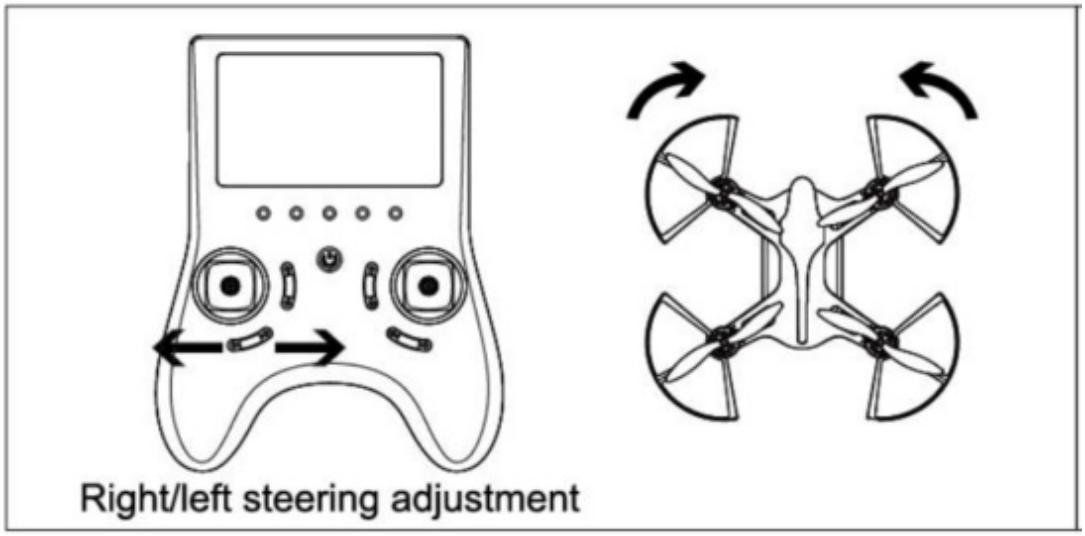
3. When the right-right joystick is operated in left and right directions, the aircraft flies in left and right directions simultaneously.



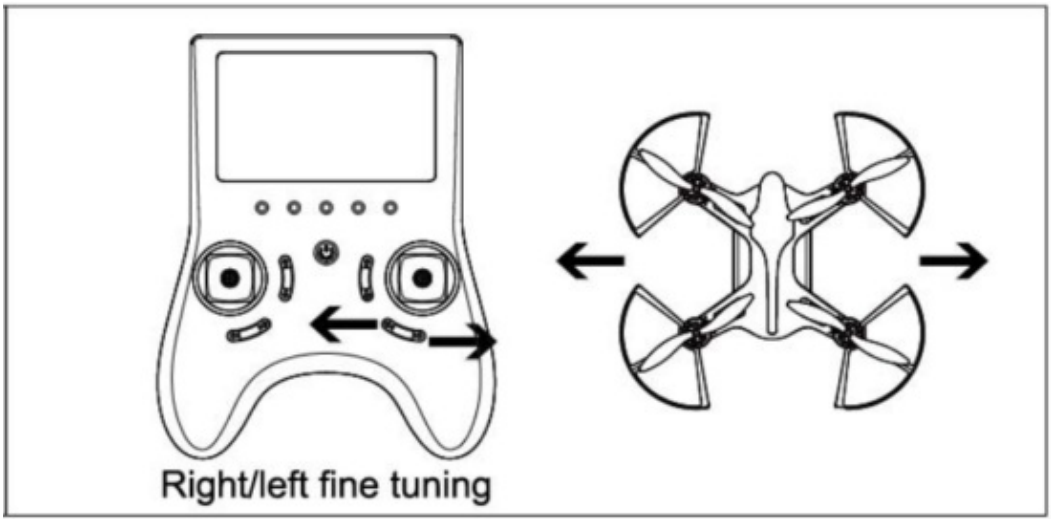
4. When the forward-backward joystick is operated upward and downward, the aircraft flies forward and downward simultaneously.
5.



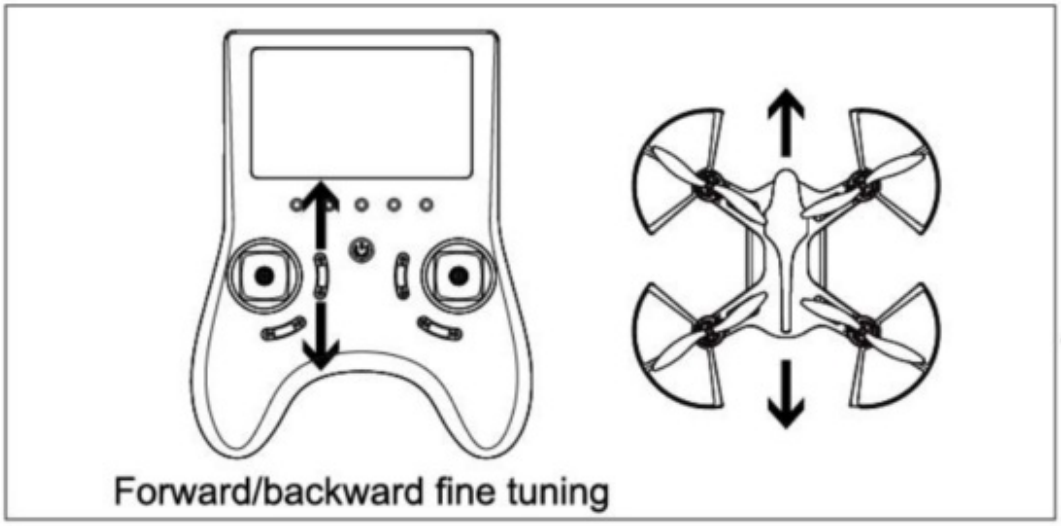
Steering fine-tuning is adjusted. As a flight, the head is partial to the left. Fine-tuning is adjusted to the right. On the contrary, fine-tuning is adjusted to the left.



6. Left-right fine-tuning is adjusted. In a flight, the fuselage is partial to the left. Fine-tuning is adjusted to the right. is, On the contrary, fine-tuning is adjusted to the left.

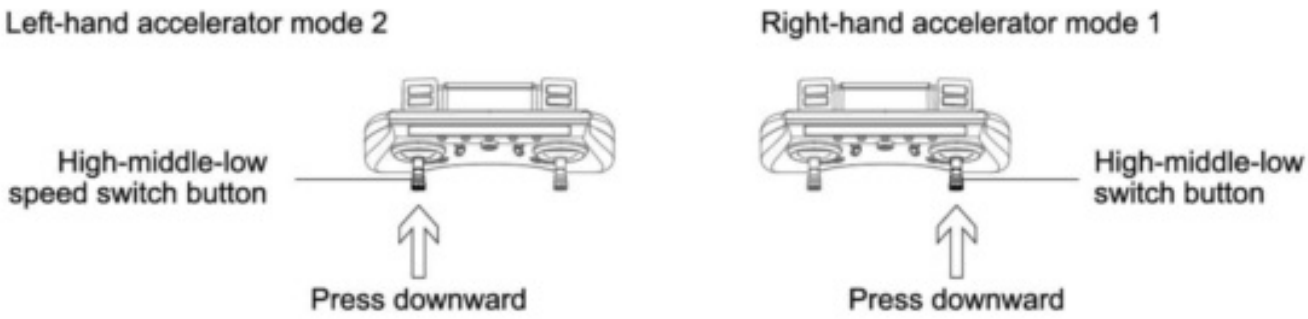


7. Forward-backward fine-tuning is adjusted. In a flight, the fuselage is partial to the forward. Fine-tuning is adjusted backward. On the contrary, fine-tuning is adjusted upward.



High-middle-low speed mode

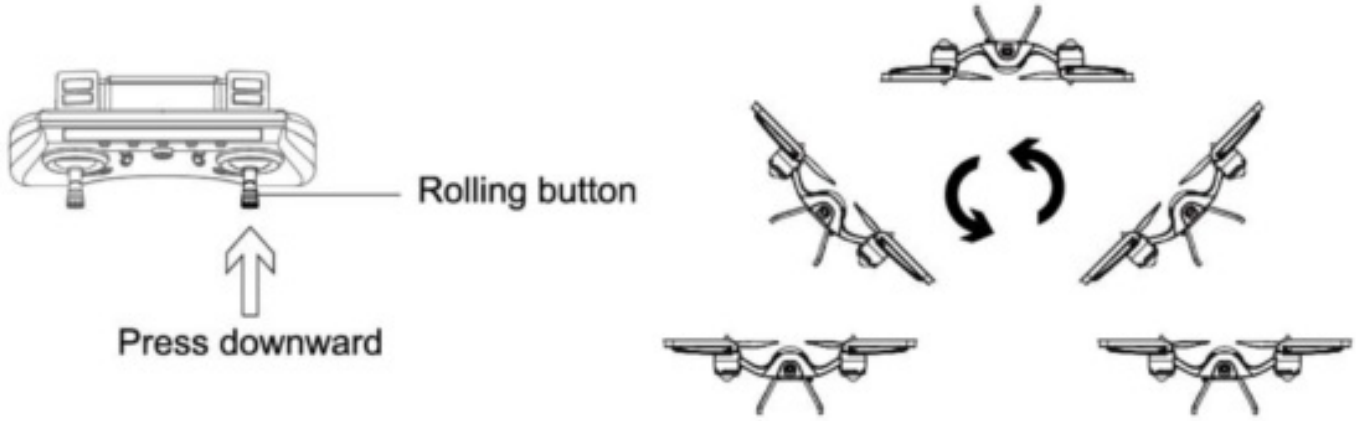
The aircraft has three grades of high-middle-low speed mode. Press the high-middle-low speed mode button on the remote control, and the remote control will give out di, didi and divide, representing low, high, and middle modes, respectively(Default is the middle-speed mode. Middle-speed mode is suitable for beginners and high-speed mode is suitable for experts).



Rolling mode

Left-hand accelerator mode 2 rolling mode

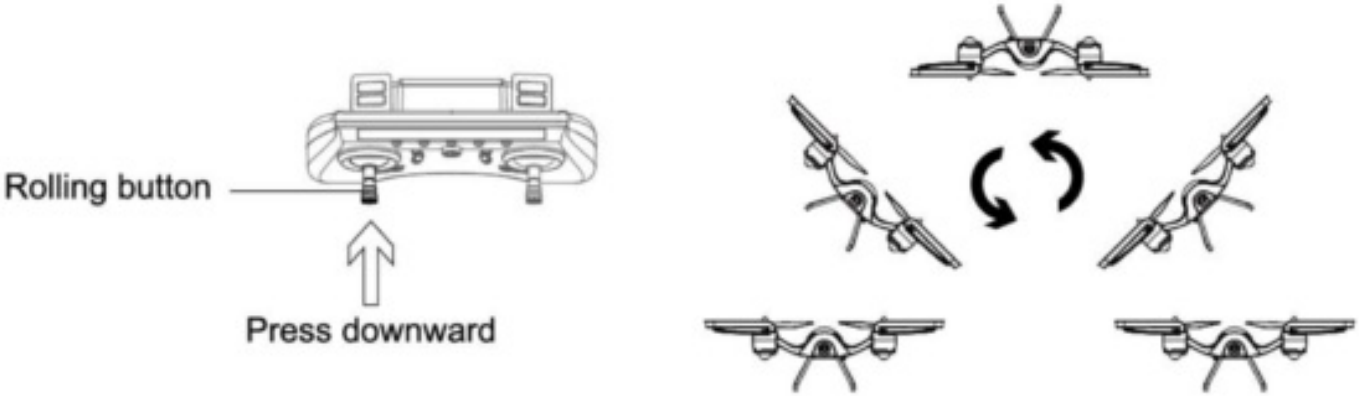
When the aircraft flies in the air, press the right rocker on the remote control, and the remote control gives out divide, showing that the aircraft enters into the rolling state. The joystick is pushed to the maximal distance in any direction of the front, back, right, and left. Then loosen it. The aircraft rolls in 360° direction in front, back, right and left, respectively. Meanwhile, the rolling mode will be closed automatically.



Warnings: The action must have sufficient flight space. Otherwise, it may generate risks.

Right-hand accelerator mode 1 rolling mode

When the aircraft flies in the air, press the left rocker of the remote control downward and the remote control gives out a divide, showing that the aircraft enters into the rolling state. The left joystick is pushed to the maximal distance forward and downward and it is loosened. The aircraft rolls in 360° direction forward and downward simultaneously. Meanwhile, the rolling mode is closed automatically. The right joystick is pushed to the maximal distance in left and right directions and it is loosened. The aircraft rolls 360° in the corresponding direction simultaneously. Meanwhile, the rolling mode will be closed automatically.



Warnings: The action must have sufficient flight space. Otherwise, it may generate risks.

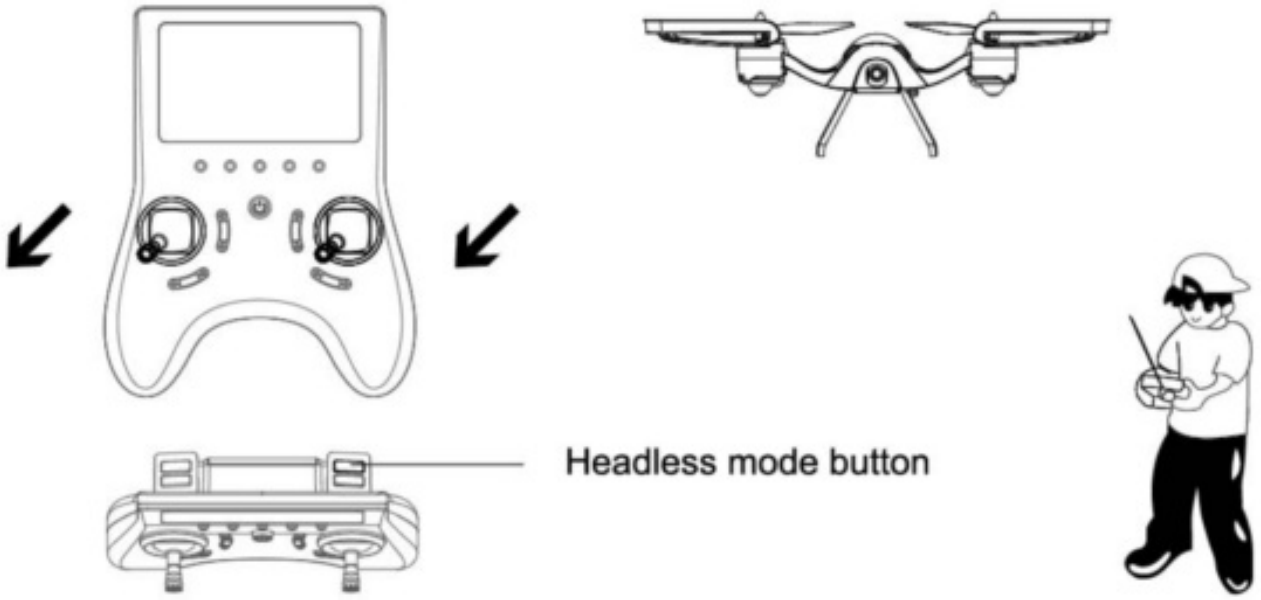
Headless mode

Press the headless mode button of the remote control, the remote control gives out di to hint every 2-sec intervals. At the moment, the body light every second flashes 3 times, said to enter the headless mode. Press the headless mode of the remote control again, the remote control gives out “di di di”. The fuselage indicator is kept normally

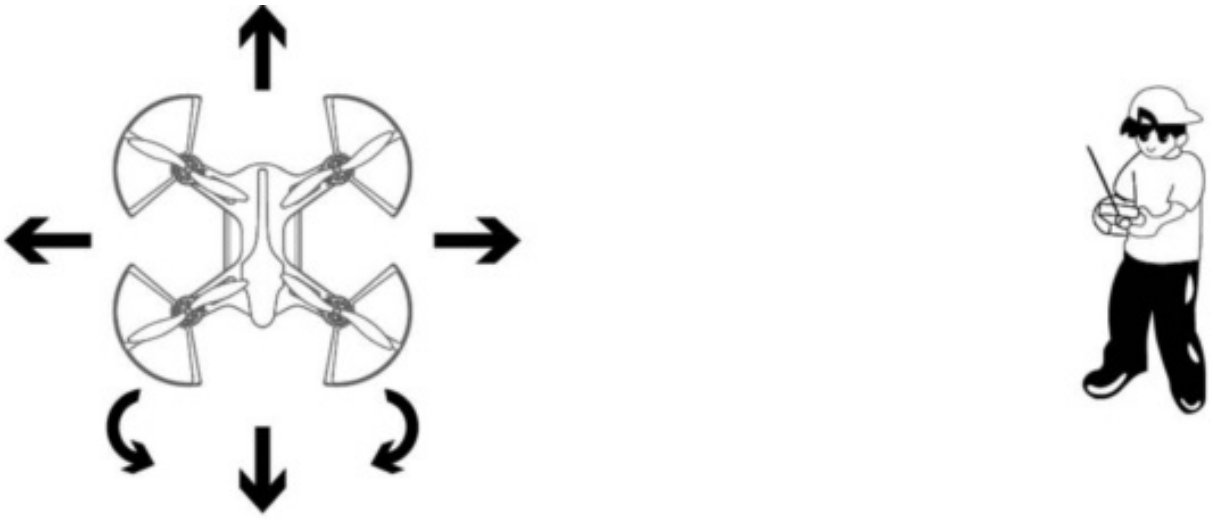
on. The aircraft exits the headless mode.

The aircraft direction of standard headless mode

Before the aircraft enters into the headless mode, it is necessary to verify the flight direction. The aircraft head aims at the front direction of the operator. Meanwhile, the left-right rocker of the remote control is pushed to the left corner for about 2 sec. the aircraft fuselage indicator turns to fast flashing from normally on for 2 sec and recovers to normally on. The flight direction of the aircraft is verified.



The flight direction control of the aircraft under the headless mode Under the headless mode, the control direction of the aircraft regards the fuselage head direction as the front direction as the calibrated direction of the aircraft. When operators operate the aircraft, it must face to fuselage direction of the aircraft calibrated direction. Otherwise, it can't control as the operating direction. The specific control is shown as follows:



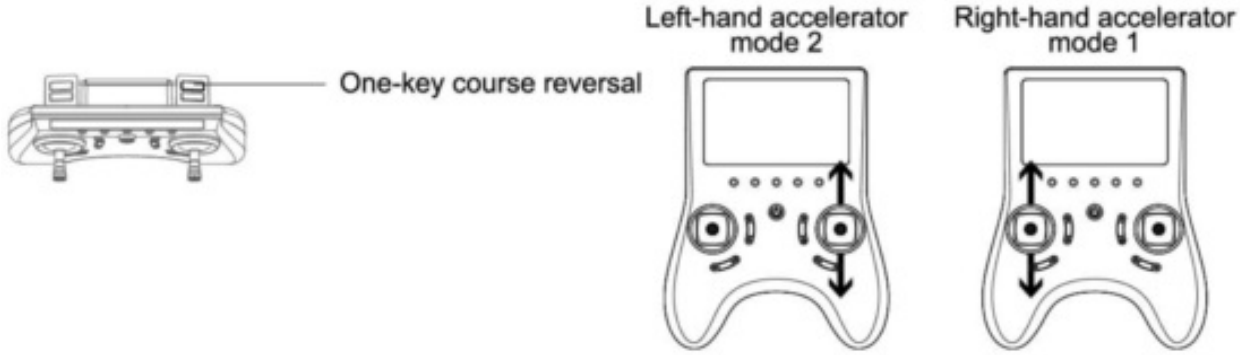
1. Remote control rocker pushes forward. The aircraft flies to the front of the operator.
2. Remote control rocker turns to the right. The aircraft turns to the right of the operator.
3. Remote control rocker pulls back. The aircraft flies to the back direction of the operator.

4. Remote control rocker turns to the left. The aircraft turns to the left of the operator.
5. Remote control rocker flies to the left. The aircraft flies to the left direction.
6. Remote control rocker flies to the right. The aircraft flies to the right direction.

Attentions:

1. When planning to fly in the headless mode, it is necessary to confirm the control direction of the aircraft and calibrate the control direction of the aircraft. Moreover, operator must face to the calibrated direction of the aircraft, namely the direction pointed by fuselage. In the control process, don't change, for fear of impacting aircraft control.
2. As flying in the headless model, aircraft may have an artificial strike or longer accumulated time of flight, resulting in deviation in headless control and impacting flight control. The aircraft can be calibrated under the headless mode, ensuring flight control recovers to normal.

One-key course reversal
In the flying process of the aircraft, press one-key course reversal. The remote control gives out "di.di.di" every 2sec intervals, showing that the aircraft returns. The aircraft will fly backward in the direction of the operator. This function only needs to be around the rocker to push or press return direction keys at the same time can cancel the return function. At the same time, the warning voice will stop.



5.8G FPV picture transfer photograph/camera control specification

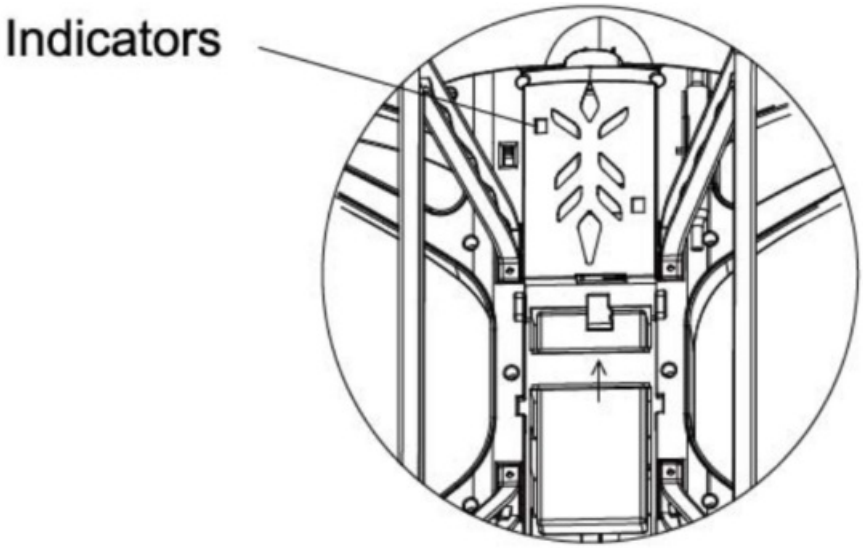
1. The picture transfer of this product uses a 5.8G transmission system, equipped with a 720P high-definition camera and a 4.3inch of super-huge screen display with the characteristics of strong anti-interference, fast transmission speed, convenient speed, and unnecessary debugging. It can be used without opening.

Product parameters of picture transfer:

1. Horizontal resolution of videos: 1280*720P/30FPS

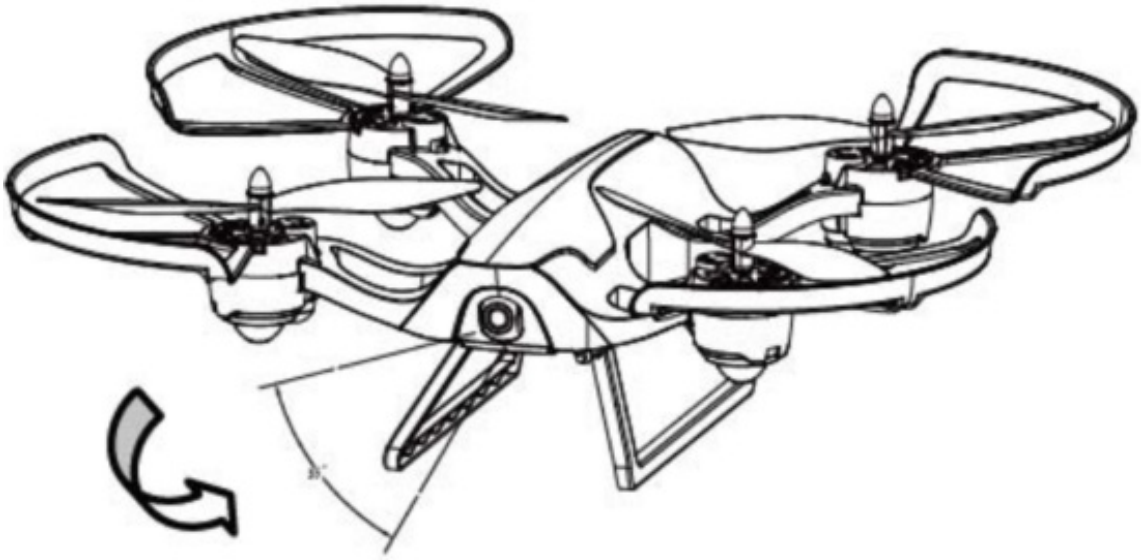
2. Photograph pixel: 1600*1200
3. Camera sensing chop: 1/4inch HD Color CMOS
4. Lens specification: 4P visual solubility 68°
5. Video system: PAL NTSC
6. Image area: 3888unn*2430
7. Video output: 1.0Vp-p/750
8. SNR: 38db
9. 5.8G receiving sensibility: -90dbm
10. Camera module working voltage: DC3.0-4.2V
11. Camera module power consumption: 550MA±10%(DC3.7V)
12. The working voltage of the display: DC3.3-5V
13. Power consumption of display: 450M±10%(DC3.7V)
14. Working temperature: -5 C-55 C RH95%Max
15. Storage temperature: -40 C -85 C RH96%Max
16. Transmitted power: 30mw

2. Memory card of installation: insert the SD card to the bottom SD slot of the aircraft, press it slightly, insert SD card, normally on the camera indicator, press it again slightly, and pop out SD card automatically.



(1)The camera lens of the aircraft can adjust automatically. The adjusting range is 00-35°.
Notes:

1. All adjusting lends, don’t touch the lens. Otherwise, it will impact image quality.



2. Press the photograph button as taking a picture; the bottom indicator flashes once to take a picture. One picture will be taken by pressing it once.
3. Press the camera button as shooting, and the bottom indicator flashes for a long time, showing it is shooting. Press the camera button, and the bottom indicator stops flashing, showing it stops shooting. The video is saved in the SD card automatically.

Photograph/camera

Guidance of common problems

Problems	Reasons	Countermeasures
The aircraft fuselage indicator is fla shing. The operation has no respon se.	1. The aircraft fails to connect frequ ency with the remote control. 2. Aircraft has insufficient electric q uantity.	1. Refer to(light operation steps) to connect frequency again 2. Charge the batteries.
The aircraft fan rotates, but it can't f ly.	1. Batteries have insufficient electri c quantity 2. Fan deformation or wrong install ation	1. Charge for the batteries 2. Replace fan
Aircraft shocks fiercely.	Fan deformation Axle bending	1. Replace fan 2. Replace axle
Fine-tuning is adjusted to the botto m, but it can't stabilize the aircraft.	1. Fan deformation 2. Poor motor	1. Replace fan 2. Replace motor
After striking, the aircraft flies again . It is out of control and flies at rand om.	The gyroscope is out of balance for striking	Refer to (gyroscope calibration spe cification) to calibrate the fuselage

USA Toyz

To ensure that play is both safe and fun, please review these operating instructions with your children: Failure to follow all safety instructions may result in injury or property damage none of which USA Toyz will be held liable for as proper warnings are outlined in the manual.

- Upon use of this product, the end-user assumes all responsibility and USA Toyz cannot be held liable for any personal injury and/or property damage.
- This item contains fast-moving parts, motors, and/or other wiring. When using it, basic precautions should always be followed including but not limited to the following:
- Keep your eye on the product at all times
- Tie back hair or wear a hat to avoid entanglement or injury
- Keep hands, hair, and loose clothing away from moving parts when the power switch is turned ON.
- Please ensure the product is turned off when not in use.

WARNING

CHANGES OR MODIFICATIONS TO THIS UNIT NOT EXPRESSLY APPROVED BY THE SELLER WILL VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

TR003F

Documents / Resources

	HORNET TR003F Drone with 5.8G LCD Screen Real Time Transmitter [pdf] Instruction Manual TR003F Drone with 5.8G LCD Screen Real Time Transmitter, TR003F, Drone with 5.8G LCD Screen Real Time Transmitter