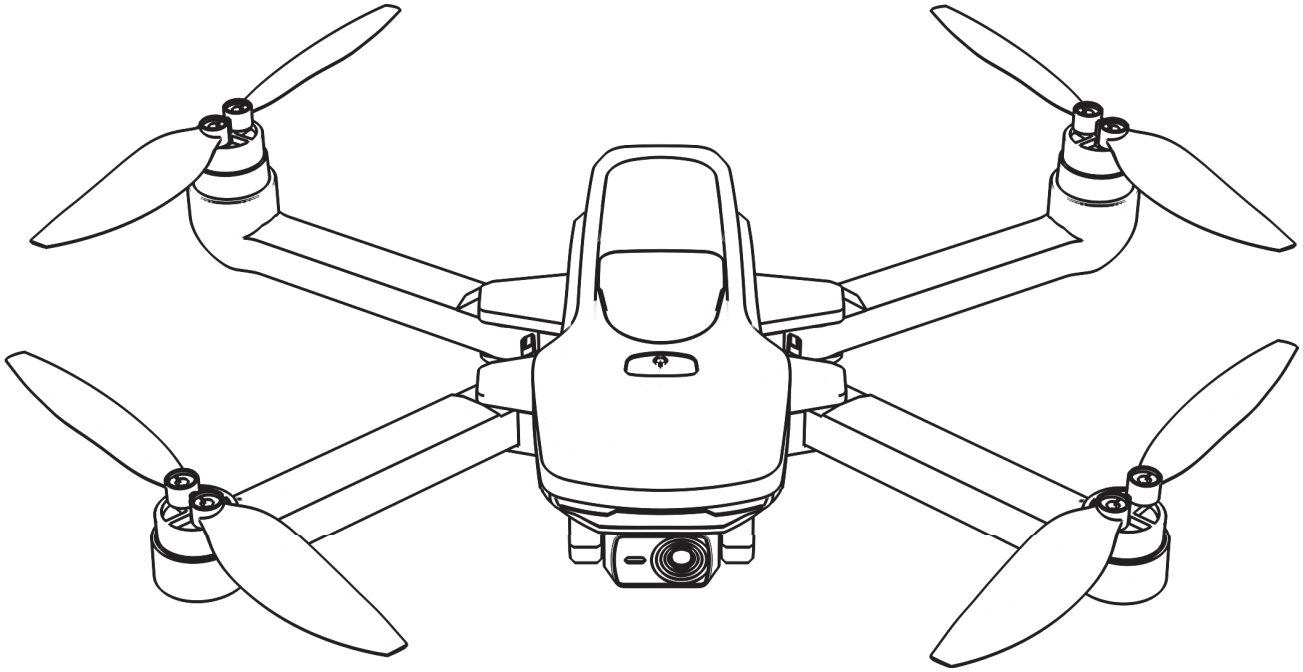
DRONE
GPS
user's manual



To ensure compliance with the electromagnetic environment requirements of aviation radio stations, it is strictly prohibited to fly within a range of 10 kilometers on both sides of the airport runway centerline or within a range of 20 kilometers from both ends of the runway centerline. It is also prohibited to fly on airline routes. It is not allowed to use any type of flight model or unmanned quadcopter aircraft in areas prohibited by relevant units or departments in China.

Important Notice:

1. This product must be used by individuals aged 14 and above. It is a precision equipment that integrates mechanics, electronics, aerodynamics, and high-frequency transmission. Proper assembly and debugging are required to avoid any accidents. Users should operate and control this product in a safe manner. Incorrect operation may cause serious personal injury or property damage. It may also be lost due to incorrect operation.
2 . This product is suitable for experienced drone pilots aged 14 and above.
3. If any problems arise during use, operation, or maintenance, please contact your local sales agent or retailer, or keep in touch with our company's responsible personnel.

Safety precautions:

This aircraft may pose a danger during use, please ensure that it flies away from any personnel or spectators. Incorrect installation, poor usage conditions, or user unfamiliarity with the operation can all cause damage to the aircraft or injury to personnel, and may also lead to accidents. Please pay special attention to flight safety and identify more dangerous situations that may be caused by your own negligence leading to accidents.

1. Stay away from any buildings or crowds.

During flight, this aircraft may experience slight changes in speed or sensitivity, which could pose potential hazards. Therefore, please stay away from crowds, buildings, trees, structures, high-voltage lines, and other objects. At the same time, please avoid using it in rainstorm, thunderstorm, gale and other severe weather conditions to ensure the safety of users, viewers and surrounding properties.

2. Stay away from humid environments.

The interior of the aircraft is composed of many precision electronic and mechanical components. Therefore, please try to avoid any moisture or water entering the body as much as possible, otherwise it may cause mechanical and electronic component failures, resulting in accidents.

3. Only use the components included for the intended purpose.

Please use original parts from the Junyi series for modification or repair to ensure flight safety. Please operate and use within the allowable range of product functionality. Using unapproved parts will render the warranty invalid. Do not use the aircraft for any illegal purposes or beyond the scope of local laws and regulations.

4. Avoid independent operations.

New users may encounter certain difficulties in the early stages of learning to operate this aircraft. Please try to avoid operating the aircraft independently. If conditions permit, please operate under the guidance of more experienced users.

5. Do not operate under the influence of drugs or alcohol.

Please operate this R/C aircraft based on your own condition and flying skills. Any fatigue, poor mental state, or incorrect operation may increase the risk of accidents.

6. Please maintain a safe distance when flying at maximum speed.

When the operator is flying at maximum speed, please keep the aircraft away from the pilot and any surrounding personnel or objects to avoid danger or damage.

7. Store in a cool and dry place.

The R/C aircraft is composed of materials such as metal, fiber, plastic, and electronics. Therefore, please stay away from heat sources and avoid prolonged exposure to direct sunlight. Excessive heat exposure can lead to deformation and damage.

Note: According to Part 15 of FCC regulations, this device has been tested and meets the restrictions for Class B digital devices. These restrictions are intended to provide reasonable protection against harmful interference from residential equipment. This device generates, uses, and radiates radio frequency energy. If not installed and used according to the instructions, it may cause harmful interference to radio communication.

However, it cannot be guaranteed that it will not cause interference during specific installations. If the device does cause harmful interference to radio or television reception, it can be confirmed by turning on and off the device. It is recommended that users try one or more of the following measures to correct interference.

- Reposition or adjust the receiving antenna.
- Increase the distance between the device and the receiver.
- Connect the device to an outlet on a circuit different from the one connected to the receiver.
- Seek help from distributors or experienced radio/television technicians.
- Please note that changes or modifications that have not been explicitly approved by the responsible party may result in the invalidation of users' operational permissions.

Warning:

1. This packaging and user manual contain important information, please keep it properly for future reference.
2. You are responsible for ensuring that this model of aircraft does not cause personal injury or property damage to others.
When debugging or assembling this aircraft, please strictly follow the instructions in the manual. During flight or landing, please pay special attention to keeping a distance of 1-2 meters from the aircraft to avoid potential injuries caused by head, face, or body collisions.
4. Our company and distributors are not responsible for any bodily loss, damage or injury caused by improper operation.
Children aged 14 and above should use this product under adult guidance. Children under the age of 14 are prohibited from using this product.
6. Please assemble and use this product correctly according to the instructions or packaging. Some parts must be assembled by adults.
7. This product contains small parts. Please keep it out of reach of children to avoid choking hazards or accidental ingestion of parts.
8. It is strictly prohibited to play near roads or areas with heavy traffic to avoid accidents.
9. Please handle packaging materials in a timely manner to avoid causing harm to children.
10. Do not disassemble or reassemble the aircraft, as it may cause malfunctions during flight.
11. The batteries in the charger battery box should be plugged into the designated power source that matches the product label.
12. Only original chargers produced by our factory can be used.
13. Chargers are not toys.
14. When charging, please do so under the supervision of an adult. Please also keep away from any flammable materials while charging. Please keep the aircraft within your line of sight while charging.
15. Please do not short-circuit or squeeze the battery to avoid causing an explosion.
16. Do not mix lithium-ion batteries with other types of batteries.
17. The quadcopter aircraft is equipped with intelligent lithium batteries.
18. Do not short-circuit or disassemble the battery, or throw the battery into a fire; Do not place the battery in high temperature or heated areas (such as near fire or electric heating devices).
19. Aircraft should be kept as far away as possible from other electrical or electronic devices, or from nearby areas with magnetic objects, to avoid mutual interference.
20. Please maintain a safe distance from the high-speed rotating rotor to avoid the risk of twisting, injury, or cutting.
21. The engine will heat up. Do not touch to avoid burns or injuries.
22. Please do not place this product near your ears as it may damage your hearing.
23. It is recommended to use a mini USB 5V wall charger for charging. Do not use chargers that exceed 5V.
24. In order to comply with the magnetic environment requirements set by the Aviation Radio Authority and relevant departments, please stop using this type of transmitter during the control period in certain areas when there are control orders.
25. Keep your drone within line of sight.
Never fly above the heads of crowds.
Never fly during sports stadiums or sporting events.
28. Understand airspace restrictions and requirements.

Warning: This product is only for use by adults and children aged 14 and above. Children under the age of 14 need to be supervised by adults.

Warning: Aircraft battery charging must be carried out under adult supervision. Please unplug the power promptly after fully charging. Do not overcharge the battery.

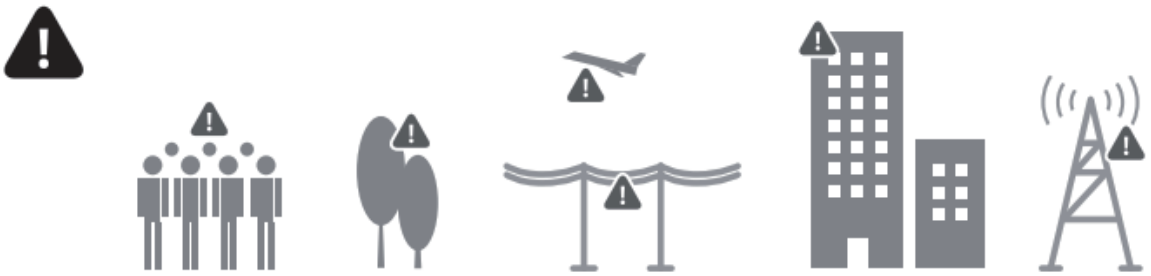
flight safety

Fly in Open Areas

Strong GPS Signal

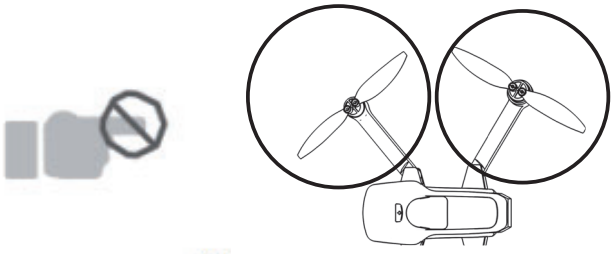
Maintain Line of Sight

Maximum flight altitude height is about 120 meters.



Avoid crossing or approaching obstacles, crowds, high voltage lines, trees, airports, or bodies of water.
Do not approach strong electromagnetic sources such as power lines, base stations, etc., as they may affect the compass of the aircraft.

Do not use drones in unfavorable weather conditions such as rain, snow, fog, and wind speeds exceeding 8 meters per second or 18 miles per hour.



Stay away from the rotating propellers and motors.

No Fly Zone

For the safety of you and those around you, it is very important to understand the basic flight guidelines. Don't forget to read the safety guide before flying.

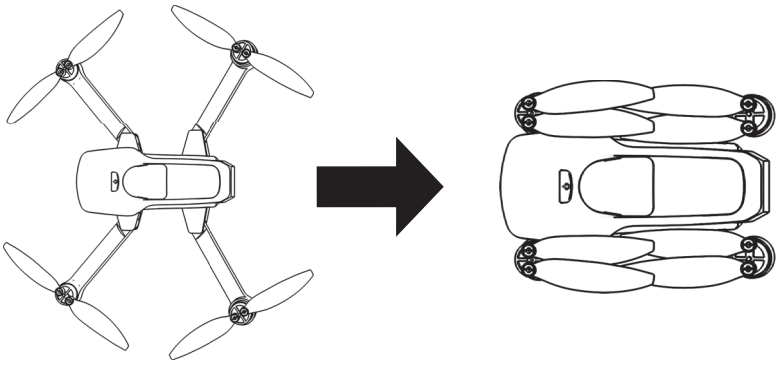
Product assembly

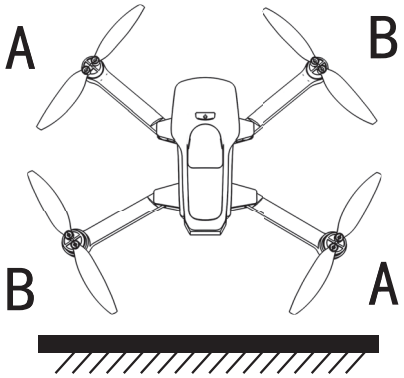
Installation/removal of fan blades

Fan blade installation:
1. Install the fan blade with A onto the fixed position of the motor on arm A, lock the screw and secure it in place
2. Install the fan blade with B onto the fixed position of the motor on arm B, lock the screw and secure it in place

Demolition:
Twist the screw counterclockwise and remove the fan blade.

Kind reminder: Please install all accessories in order as shown in the following picture. The fan blades are divided into positive and negative directions, and pay attention to the rotation direction. Pay attention to tightening the screws.





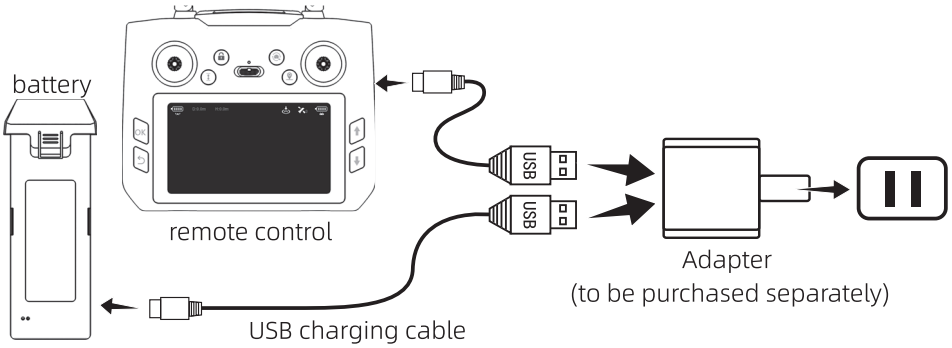
- Please ensure that the installation positions of the forward and reverse blades are correct. If installed incorrectly, the aircraft will not be able to fly normally.
- Due to the thin blades, please be careful during installation to prevent accidental scratches.
- Please use the original fan blades provided by our factory.
- The fan blades are consumables that are easily damaged. If necessary, please purchase accessories separately.

Aircraft battery charging

Remove the battery from the aircraft body, insert the USB into the charger, insert the battery into the USB output terminal, and the battery indicator light will remain red to start charging. The green light stays on continuously when charging is completed.

Remote control charging

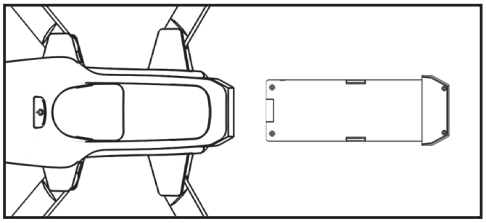
Turn off the power switch of the remote control, insert the USB into the charger, insert the charging port of the remote control into the USB output terminal, and the red indicator light of the remote control will be on to start charging. The red indicator light on the remote control stops working and charging is complete.



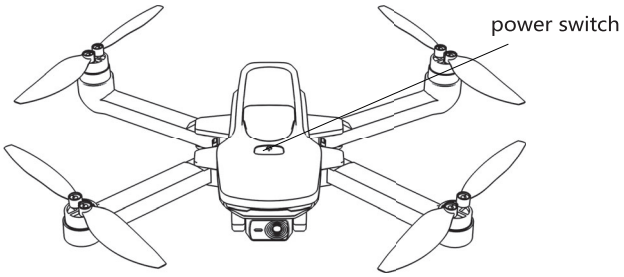
REMINDER:
- Please insert the plug in the correct way. Please do not reverse insert.
- It is recommended to use a 5V 2-5A adapter for charging, and it is not recommended to use a computer USB port for charging.

Connect the aircraft power supply:

Insert the charged battery into the battery holder of the aircraft, then align the battery plug with the power input port on the aircraft for power connection. After connection, turn on the aircraft power and turn on the aircraft to make an electric start sound. At this time, the aircraft lights up



Attention: Please be sure to remove the battery when the aircraft is not in use!



⚠ ● When charging rechargeable batteries, please stay away from children and must be done under adult supervision. When charging, please keep away from flammable materials and be supervised by an adult Do not leave the battery outside the monitoring range.

● Please do not short-circuit or squeeze the battery to avoid explosion.

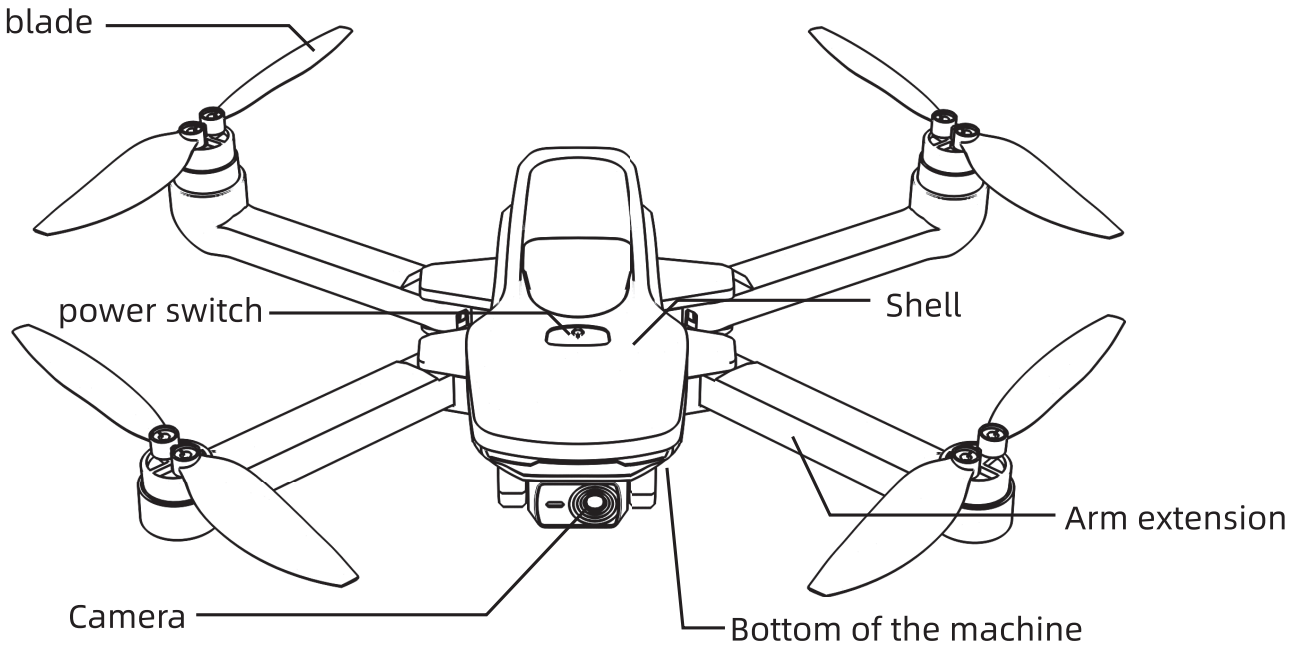
● The power terminal should not be removed from the model, and the terminal should not be short circuited; Do not short-circuit, disassemble or put the battery into fire; Do not place the battery In high temperature and heated places (such as in a fire or near an electric heating device).

● The model can only use the recommended charger, which is not the model. Models that can be cleaned with liquid should be disconnected from the charger before cleaning and checked regularly Check if the wires, plugs, casing, and other components of the charger are damaged. If any damage is found, stop using it until it is fully repaired.

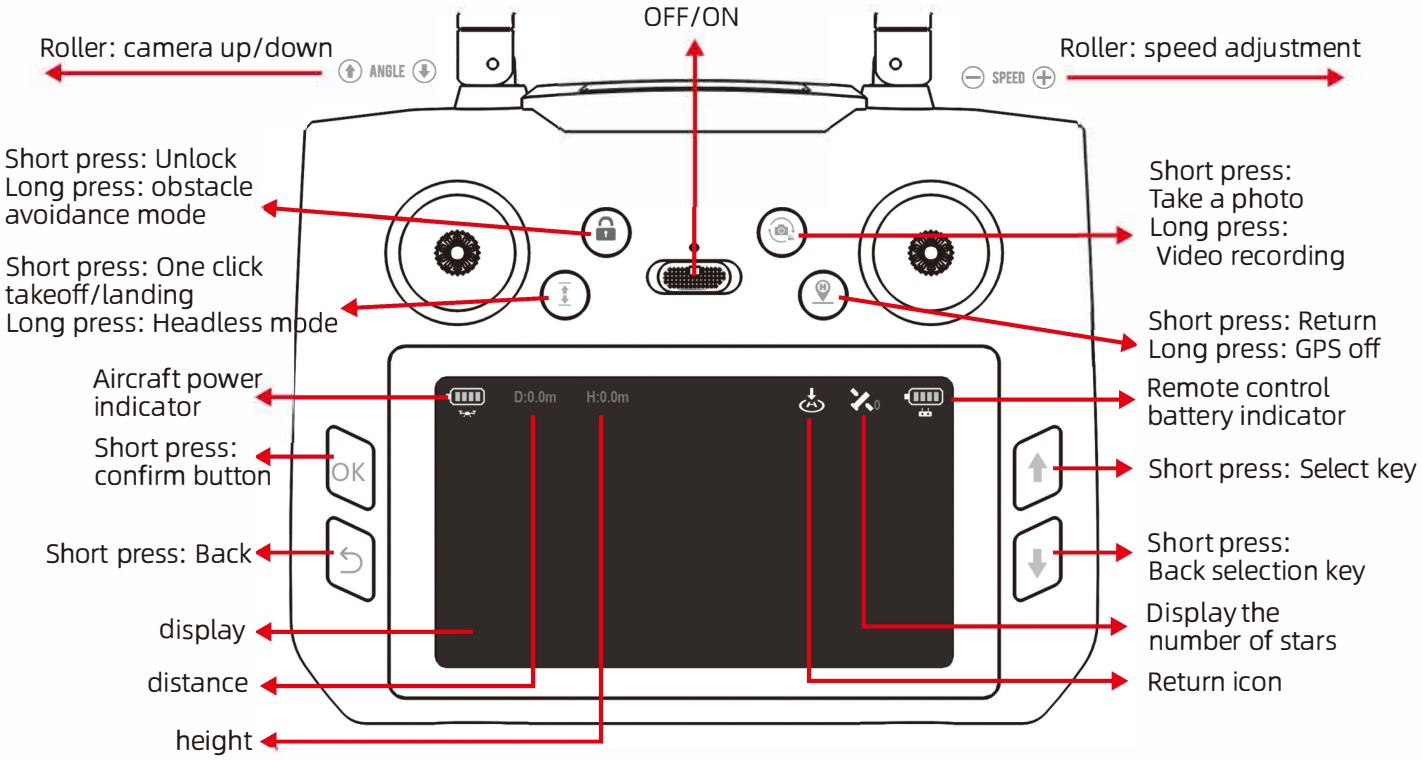
● Chargers are not toys; The charger can only be used indoors.

● After the flight, the battery needs to be charged before storage. If not in use, it is recommended to charge the battery at least once every 3 months to avoid excessive discharge and permanent damage Long term damage to the battery. The battery should not be fully charged during storage, and a voltage of 3.9V is optimal.

Aircraft component names



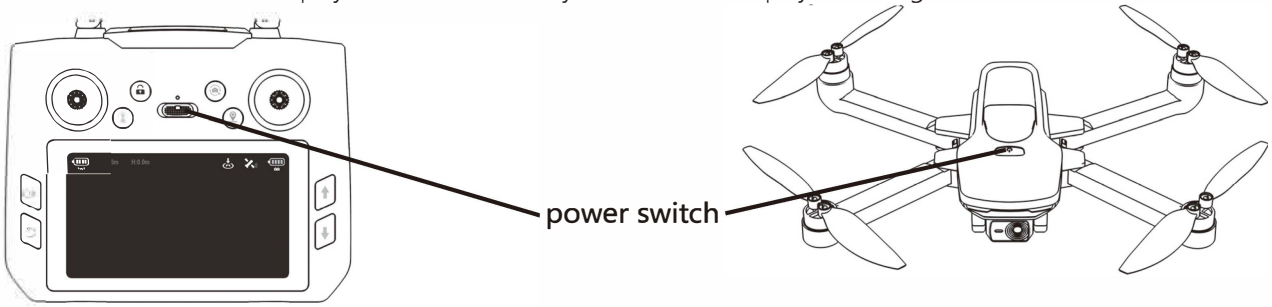
Remote control component names



Obstacle avoidance is an additional function that can only be used by purchasing products with obstacle avoidance capabilities. Infrared obstacle avoidance is only available indoors and has an obstacle avoidance effect

Aircraft code matching

1. Insert the aircraft battery into the aircraft battery slot in both forward and reverse directions. Place the aircraft on a level ground and press and hold the power button for two seconds to turn it on. The aircraft indicator light will flash rapidly and then slowly flash
2. Turn on the power switch of the remote control, complete the frequency matching, the green indicator light of the remote control stays on, and the front light of the aircraft indicator light stays on. Code matching is completed
3. Press and hold the return button for 3 seconds to switch to indoor mode. (Note: The automatic return function cannot be used in indoor mode)
4. After the code is matched, the display screen automatically connects and displays the image



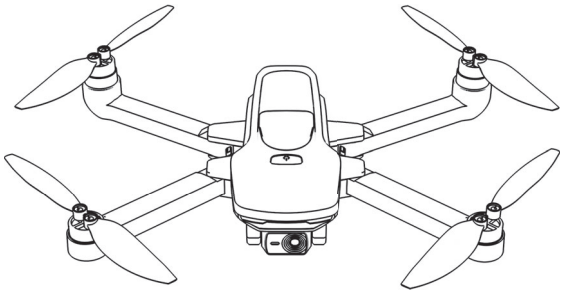
●As long as the remote control and the aircraft are successfully paired, there is no need to perform further pairing operations without pairing with other aircraft or remote controls.
●When pairing the remote control with the aircraft, please ensure that no other remote control is powered on with the aircraft at the same time, otherwise it will be incorrect.
The product aircraft is no wireless transmission function

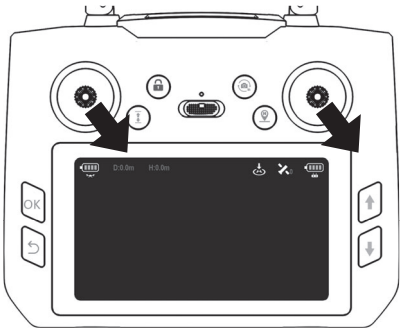
Aircraft initialization detection

After the aircraft is coded, place it on a level ground and enter the initialization check. At this time, the aircraft can complete the initialization check in about 8 seconds Measure and enter the compass calibration.

Gyroscope calibration

After successful code matching, place the aircraft on a level ground and push the left and right joysticks towards the five o'clock direction of the clock according to the instructions in the following figure. At this time, the forward and backward indications will be fast Flashing, the gyroscope enters calibration mode, the indicator light remains on before flashing slowly, and the remote control emits a beeping sound to indicate calibration is complete.





● When performing gyroscope calibration, it is necessary to place the aircraft on a horizontal plane, otherwise it will affect the flight.

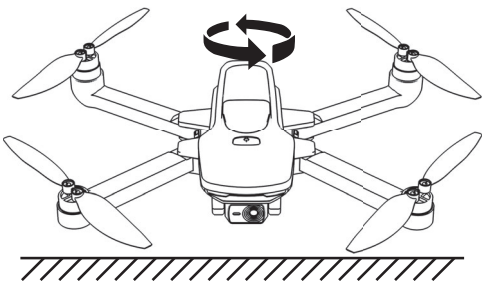
Compass calibration

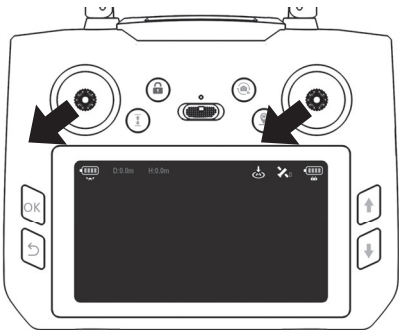
1. Compass calibration must be performed every time the aircraft is powered on, otherwise the aircraft will not be able to fly normally.
2. Both remote control levers enter compass calibration mode simultaneously towards the 7 o'clock direction
3. The compass calibration can only be entered after successful code matching between the aircraft and the remote control and completion of initialization detection.

Compass calibration consists of two steps:

Step 1: Horizontal calibration

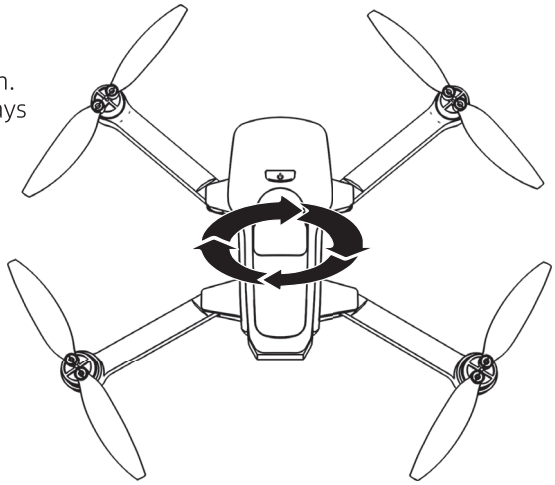
After calibrating the aircraft, place it on a flat surface and use both left and right control levers to enter the compass calibration direction at 7 o'clock. Rotate the aircraft horizontally for about 3 turns according to the instructions in the following figure, and make a beep on the remote control until the rear indicator light of the aircraft stays on. The horizontal calibration is complete. There are also prompts on the display screen.





Step 2: Vertical Calibration

Raise the nose of the aircraft "vertically" and rotate the fuselage about 3 times according to the instructions in the diagram. The remote control beeps once until the front indicator light of the aircraft stays on and the compass calibration is completed. There are also prompts on the display screen

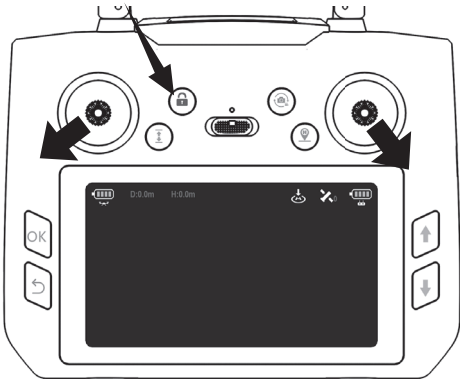


Attention: The optimal distance for calibration is at least 1 meter above the ground

- Do not calibrate in areas with strong magnetic fields, such as magnetic mines, parking lots, and building areas with underground steel bars.
- Do not carry ferromagnetic materials such as keys, mobile phones, etc. with you during calibration.
- Do not calibrate near large pieces of metal.

Search for stars: After the compass calibration is completed, the aircraft is placed flat on a horizontal surface. The aircraft will automatically search for stars. The rear indicator light of the aircraft will change from slow flashing to constant light, and the remote control will emit a beep sound. The search for stars is completed. The display screen will show the number of stars " 7" 7 or more. Press the unlock button or turn the remote control throttle lever towards the 7 o'clock direction of the clock and the direction lever towards the 5 o'clock direction of the clock. After unlocking, the aircraft will start. Short press the unlock button to unlock the blades, long press the unlock button to enter obstacle avoidance mode.

Unlock key

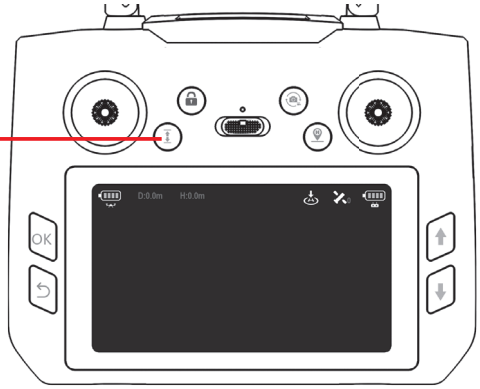


Reminder: Please ensure that the takeoff environment is open and the satellite signal is more than 7 stars before takeoff. Aircraft less than 7 stars cannot take off.

One click takeoff

- After unlocking, press the " " button briefly and the aircraft will automatically take off and hover at an altitude of about 1.5 meters. Short press the aircraft again to land on the ground, and when the aircraft cannot distinguish the direction, long press the button to enter headless mode.

take off/land



Return flight

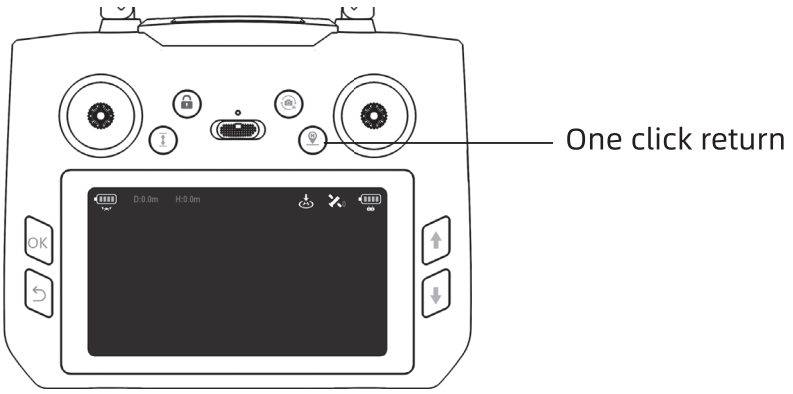
The aircraft has a return function. If the return point is successfully recorded before takeoff, if the communication signal between the remote control and the aircraft is lost or the return button is pressed, the aircraft will automatically return to the return point and land to prevent accidents.

There are three different ways for aircraft to return, namely:
1. One click return
2. Remote control and aircraft signal disconnection
3. Low battery return.

Return point:
During takeoff or flight, when GPS receives 7 or more stars for the first time, it will record the current position of the aircraft as the return point.

One click return

When the GPS signal is good (with more than 7 satellites), the aircraft can be started to return by pressing the " " button on the remote control. The return process is the same as the lost return, except that when the aircraft returns and lands, the user can control the aircraft to avoid obstacles by using the joystick, and exit the return by pressing the " " button, Users can regain control.



Remote control and aircraft signal disconnected

The GPS signal is good (with more than 7 GPS satellites), the compass works normally, and the aircraft successfully records the return point. If the remote control signal is interrupted for more than 6 seconds, the flight control system will take over the control of the aircraft and control it to fly back to the recorded return point. If the remote control signal is restored during the flight, regain control of the aircraft.

Precautions for returning:
- During the automatic return process, the aircraft is unable to avoid obstacles.
- When the GPS signal is poor or the GPS is not working, it is impossible to return.
- If the aircraft does not receive the satellite and the remote control signal continues to be interrupted for more than 6 seconds, the aircraft will not be able to return and will slowly descend until the landing is locked.

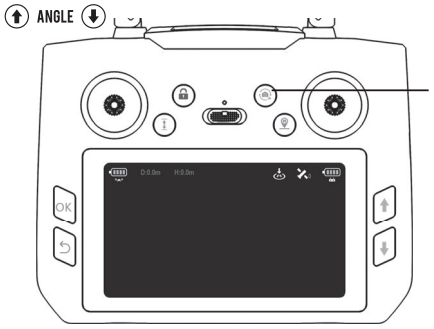
Low power return

1. Low power level return flight, flying over the takeoff point, the aircraft can fly within a safe control distance.
2. Low power secondary return, aircraft landing at takeoff point

Reminder: The aircraft is in a low power return state, and the remote control cannot cancel the return.

Take photos/videos

During the flight, the camera can be adjusted in the up and down direction. The servo wheel can be rotated to the left to adjust the servo up, and to the right to adjust the servo down. The camera lens can be rotated down by about 10 degrees. Press this button in increments. After the rotation is in place, pressing this button again has no effect. During the flight, you can use the camera or video recording on the remote control to record the image captured during the flight. Press the camera button, and the camera will take a photo. The remote control prompt sound "beep" will be displayed on the screen. Long press the camera button on the remote control, and the camera will start recording. The remote control prompt sound "beep". Press and hold this button again to exit the recording mode and save the video.



View photos and videos
The aircraft is in a powered on state

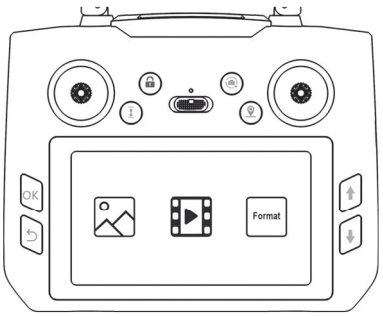
Short press the OK button to enter the display interface on the right remote control

View photos: Select the "" icon, press OK to view photos, press "↑" to view the previous photo, press "↓" to view the next photo, press the"⮌" button to return to the previous level.

View video: Select the "" icon, press OK to view the video, press "↑" to view the previous segment, press "↓" to view the next segment, and press the "⮌" button to return to the previous level.

Format: Select the "Format" icon, press OK, then select Yes to confirm formatting, select No to cancel formatting,

Press the "⮌" button to return to the previous level.



● The airplane needs to be equipped with a memory card, and without a memory card, it is not possible to take photos or videos.

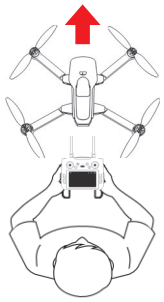
Basic Flight

Basic flight steps

1. The remote control is paired with the aircraft, and the aircraft completes initialization.
2. Compass calibration.
3. Does the remote control display screen show the image of the camera.
4. After the gyroscope of the aircraft is detected, wait for star reception, usually for 60-80 seconds (7 or more), until the rear lights of the aircraft are constantly on.
5. Turn the throttle lever of the remote control towards the 7 o'clock direction of the clock, and the directional lever towards the 5 o'clock direction of the clock. Unlock and the aircraft will start.

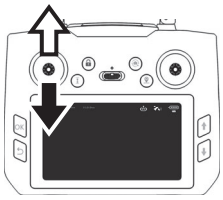
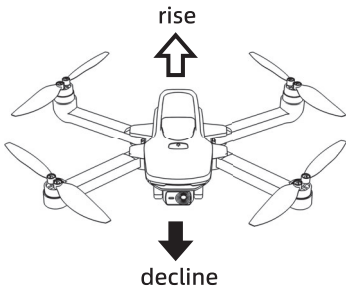
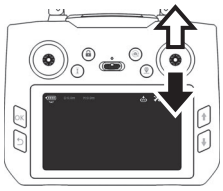
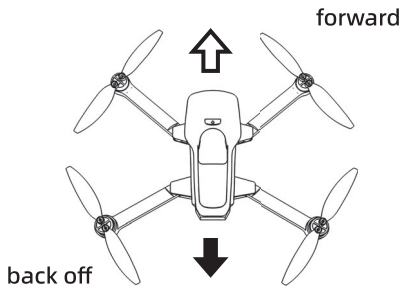
Pre flight inspection

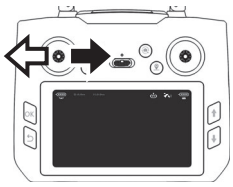
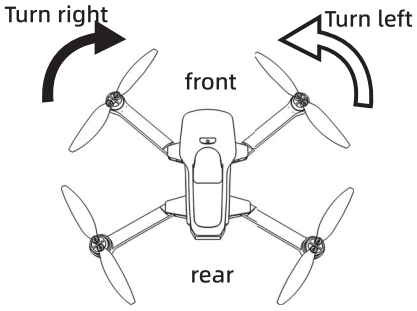
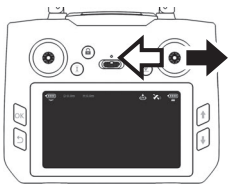
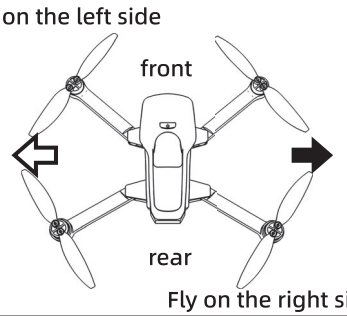
1. Whether the remote control and aircraft battery are fully charged.
2. Whether the fan blades are installed correctly.
3. Whether the compass has been successfully calibrated.
4. Is the star collection normal (7 stars or more)
5. Whether the motor starts normally after unlocking the power on.



Attention: Always keep the drone's nose facing forward

Flight control method

Remote control	Aerocraft
	
	

Remote control	Aerocraft
	
	

Common troubleshooting solutions

Serial number	problem	reason	resolvent
1	The drone cannot start	Poor GPS signal	Using drones outdoors
		The red light stays on for a long time	Turn off the drone, restart it after 10 minutes and calibrate it
		All 4 lights are flashing	Calibrate the compass according to the user manual
2	The product has slight scratches	All drones have been tested before shipment	In order to provide you with the best experience, we tested all drones before shipment, so your drones may have slight unavoidable defects, but we can guarantee that all drones are 100% brand new.
3	Video latency	Signal interference	Please fly outdoors without interference
4	Drones always move to the left or right	Drone calibration not completed	Place the drone horizontally and recalibrate it
5	Shake during flight	Blade deformation	Replace the blades
6	Uncontrolled	Signal interference or exceeding the distance that the controller can control	Please fly outdoors without interference and ensure that it is within the controllable range of the controller
7	Suddenly falling	oose battery leads to loss of power supply	Tighten the battery to ensure good contact
8	Improper operation of the motor	The indicator light continues to flash rapidly	To begin compass calibration, please place the drone on a solid ground.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to radio or television reception,
which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
-- Reorient or relocate the receiving antenna.
-- Increase the separation between the equipment and receiver.
-- Connect the equipment into an outlet on a circuit different
from that to which the receiver is connected.
-- Consult the dealer or an experienced radio/TV technician for help.
The device has been evaluated to meet general RF exposure requirement. The device can be u sed in portable exposure condition without restriction