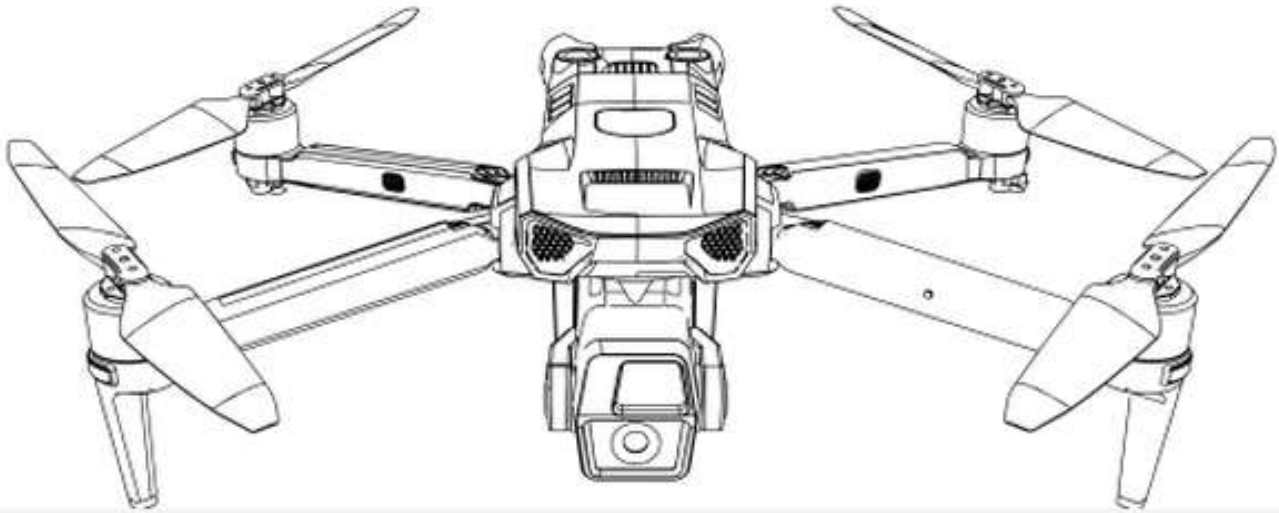


Todamu

WindForce X Manual

GPS Folding Aerial Camera



- In order to ensure the electromagnetic environment of aviation radio stations, it is forbidden to use all kinds of models and UAVs in 10 kilometers away both sides of the central line of airport runway, 20 kilometers at both ends of the runway, and civil aviation routes and routes. In the no-fly zones issued by the relevant state departments, the use of various models and UAVs is prohibited.
- The use of drones in urban areas and crowded places is strictly prohibited.
- After receiving the drone, the battery must be fully charged before use.

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Preface

You are welcome to purchase this product. In order to make it easier and convenient for you to use this aircraft, please read this instruction in detail before you operate it. At the same time, please keep this instruction properly as a reference for future adjustment and maintenance.

Important statements

1. This product is a precise equipment which integrates mechanical, electronic, aerodynamics, high-frequency emission and other professional knowledge. It needs correct assembly and debugging to avoid accidents. The holder of the product must operate and control in a safe way; improper operation may cause serious personal injury or property loss.
2. This product is suitable for people who have experience in operating model aircraft and are not less than **8** years old.
3. In case of use, operation and maintenance. Please contact the local distributor or the relevant personnel of our company.

Safety precautions

The remote control model aircraft must stay away from the crowd when flying. The unpredictable accidents such as inappropriate assembly or body damage, poor electronic control, and unfamiliar operation may result in aircraft damage or personal injury. Operators should pay attention to flight safety and be aware of other responsibilities arising from their own negligence.

1. Keep away from obstacles and crowds
The flight speed and state of the remote control aircraft are uncertain, and there are potential dangers. When flying, it must be far away from the crowd, high-rise buildings, high-voltage wires and so on. At the same time, it should avoid flying in bad weather such as wind, rain, thunder and lightning to ensure the safety of pilots/surrounding people and property.
2. Keep away from damp environment
The interior of an aircraft is composed of many precise electronic components and mechanical parts. Therefore, it is necessary to prevent dampness or moisture from entering the body of the aircraft in order to avoid accidents caused by mechanical and electronic components failure.
3. Proper use of this product, please use original parts for modification or maintenance to ensure flight safety. Please operate and use the product within the allowable scope of its functions and shall not be used for illegal purposes other than safety decrees.
4. Avoid manipulation alone
The control skills of remote control aircraft have some difficulties in the early learning stage. To avoid flying alone as far as possible, it needs the guidance of experienced people.
5. Safe operation
Please operate the remote control aircraft according to your state and flight skills. Fatigue, mental distress or improper operation will increase the probability of accidental risk.
6. Keep away from high-speed rotating parts
When the rotors of aircraft rotate at high speed, the pilots, people and objects around them should be kept away from the rotating parts so as to avoid danger and damage.
7. Keep away from heat sources
The remote control aircraft is composed of metal, fibre, plastic, electronic components and other materials. Therefore, it is necessary to keep away from heat sources, prevent sunshine, and avoid deformation or even damage caused by high temperature.

Warning

1. Packaging and instructions contain important information and should be retained.
2. It is your responsibility to ensure that no harm is done to the person or property of others.
3. The debugging and installation of the aircraft should be strictly controlled according to the operating instructions. Attention should be paid to keeping a distance of 1-2 meters between the aircraft and the user or other persons during flight and landing, so as to avoid the impact of the aircraft on the head, face and body of the human being and cause injury.
4. Our company and distributors are not liable for any loss or damage caused by improper use or operation and human injury.
5. Children should be guided by adults when operating aircraft. This product is prohibited for children under 8 years of age.
6. Please follow the instructions or packing instructions to install and use correctly. Some parts should be assembled by adults.
7. Products contain small parts, please place them in places that children can not touch to prevent the risk of eating or asphyxiation.
8. It is strictly forbidden to play on the road or in the water-logged area in order to avoid accidents.
9. Please collect the packaging materials in time so as not to cause harm to children.
10. Do not disassemble or modify aircraft. Disassembly or modification may cause aircraft failure.
11. Charger battery pack batteries need to be inserted into the specified power supply with the same product logo.
12. The remote control uses 7.4V built-in lithium batteries, which need not be replaced.
13. Only the charger installed in the original factory can be used.
14. Charger is not a toy.
15. When charging rechargeable batteries, they must be under the supervision of adults. When charging, they must be far away from inflammables. When charging, the guardian should not leave the aircraft model out of the scope of surveillance.
16. Do not short circuit or squeeze the battery to avoid explosion.
17. Do not mix different types of lithium batteries.
18. Never short-circuit, decompose or put batteries into the fire. Never place batteries in high temperature or heated places (such as in fire or near electric heating devices).
19. Aircraft should be used as far away as possible from other electrical equipment and magnetic objects, which may cause mutual interference.
20. Keep a safe distance from the high-speed rotating propeller so as to avoid the risk of strangulation and cuts.
21. The motor is a heating part. Do not touch it to avoid scalding.
22. Light-emitting diode laser radiation, do not direct beam.
23. Do not use the model close to the ear! Misuse may lead to hearing damage.
24. USB: 5V = 3A.
25. In order to ensure the requirements of the magnetic environment of Aeronautical Radio stations. During the period of issuing radio control orders within the relevant ministries of the state, the use of model remote controllers should be stopped within the region as required.

Safety Flight Guidelines



+



+



+

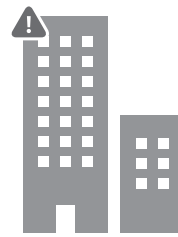


Flying in a
wide area

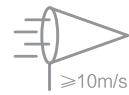
Strong GPS
signal

Keep the
aircraft in sight

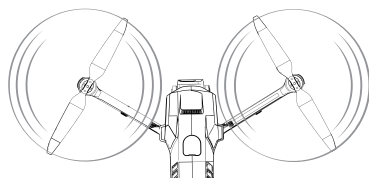
Flight altitude below
120 meters



Avoid flying over or near people, trees, high-voltage power lines, buildings, airports or waters, and high-intensity power lines or base stations, which may affect the compass on the aircraft.



Do not use this product in severe weather conditions, such as rain, snow, fog and wind speeds exceeding 10m/s or 22mph.



Propellers and motors away from rotation

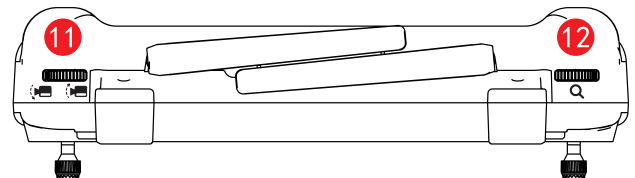
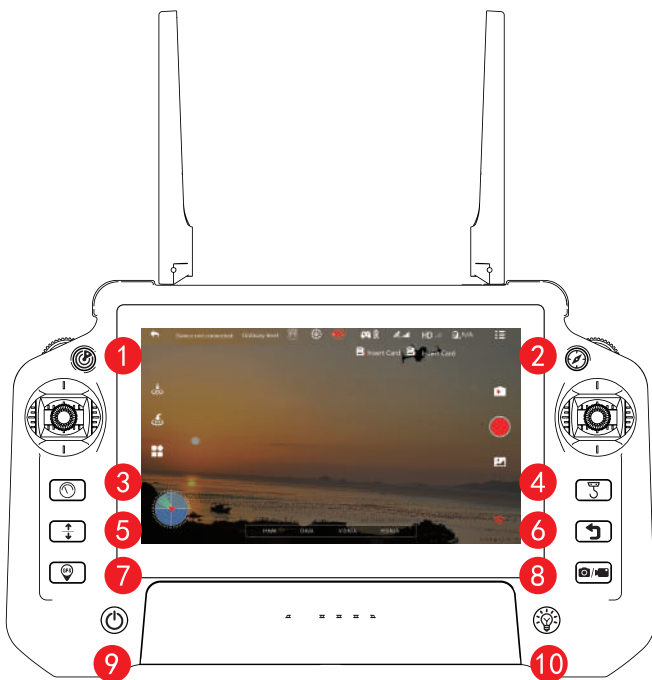


No-fly Zone



Understanding safety guidelines is important for safe flight.
Before flying, please read the safety instructions carefully.

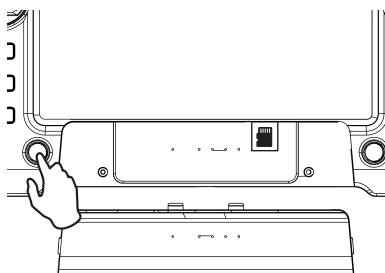
Remote Controller Function



- 1. Geomagnetic calibration
- 2. Gyroscope Calibration
- 3. Speed gear switching
- 4. Airdrop
- 5. One-click takeoff and landing
- 6. One-Key Return
- 7. GPS switch
- 8. Take photos, record videos

- 9. Power button
- 10. Searchlight control
- 11. Servo
- 12. Zoom

Flight operation instruction



Step 1: Please insert the memory card before use.

(Note: When the drone does not have a memory card, the remote controller needs to be inserted with a memory card to take photos, record videos, and save flight logs. The remote controller must be inserted with a memory card for these functions.)

Step 2: Shortly press and then long press the power button to power on and pair

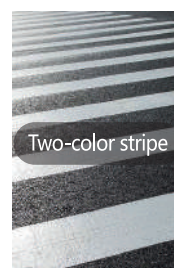
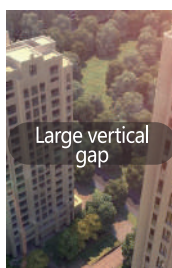
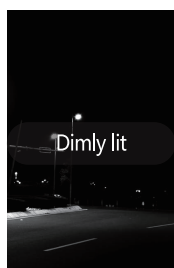
(Note: It takes 75 seconds for the system to boot up successfully)

Software operation instructions

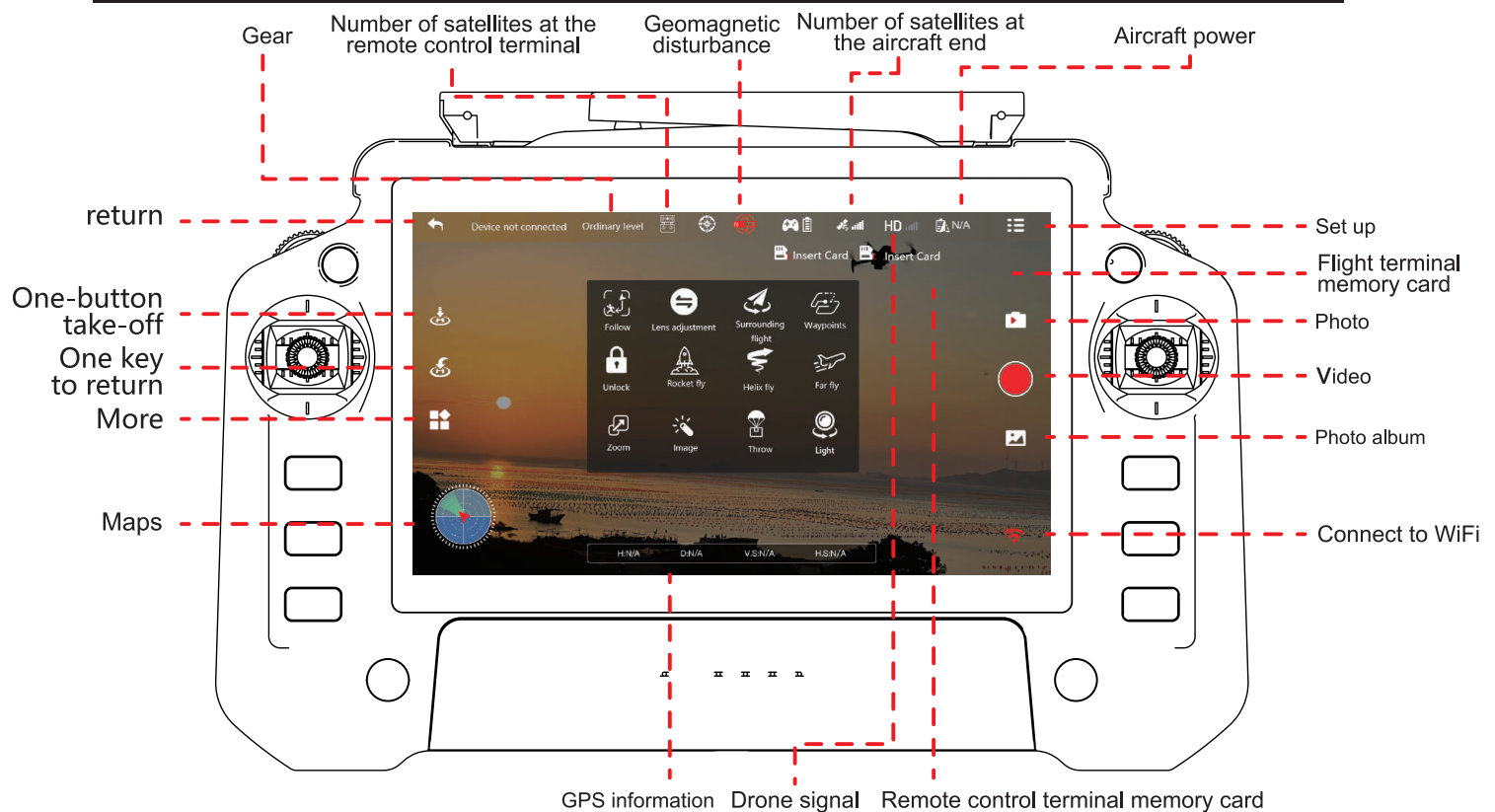


Warm Prompt: At the same time, a drone remote controller is connected.

Note: When the aircraft is in the following environment, the optical flow of the lower lens is not good enough to hover, which will make it difficult for the aircraft to fly smoothly, and the body will be shaken.



Control Interface - Control Page

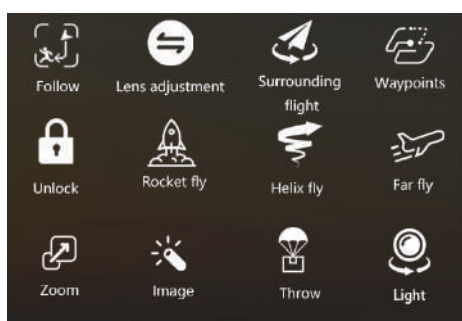


Satellite signals: Represents current flight mode and number of satellites; Scintillation means that the current mode is the optical flow point, without the function of returning, following, circling and pointing. Constant light indicates current GPS mode.

Battery: The battery status of the aircraft.(1) 2-4 grid indicates the normal power, which can operate the returning, following, circling and pointing flight functions normally in the GPS mode.(2) 1 grid (flicker state) represents the current low power state, and the aircraft will perform the automatic course reversal function. There is no following, circling and pointing flight function in low power state.

Connect to WiFi: Enable the WiFi hotspot on the mobile device, and select the 2.4Ghz channel for the AP (Access Point)

Map download: The remote control terminal must be connected to a WiFi hotspot, and operations can only be performed when the outdoor remote control can search for satellites.



GPS Follow: In GPS mode, clicking this icon will cause the drone to follow the remote control

(Note: GPS follow mode can only be executed when there are satellites available both on the remote control end and the aircraft end)

Circular Flight: When initiating circular flight in GPS mode, the aircraft will perform circular flight centered around the current altitude distance. At this time, the circular radius and speed can be controlled using the right joystick of the remote controller.

Unlock: Press the button to idle the motor

Throw: Press the button to turn on the throw switch, then press it again to turn it off.

One-key flight: After opening, the aircraft will be tilted back about 25 meters away from the target, pay attention to the rear space, avoid causing damage!

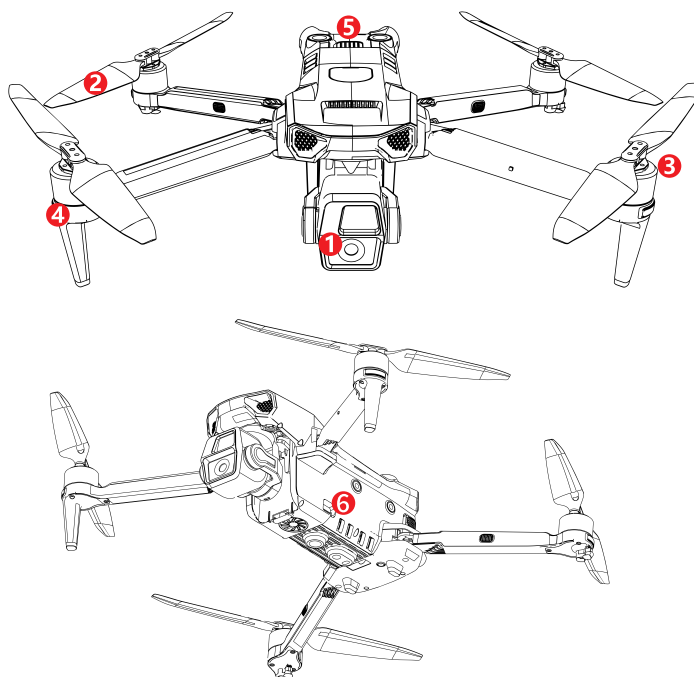
One-key skydiving: After opening, the aircraft will automatically rise about 15 meters. Pay attention to the obstacles above to avoid causing damage!

One-button spiral: After opening, the aircraft will automatically spiral up (the maximum radius is about 15 meters), pay attention to the surrounding environment, avoid causing damage!

Lens adjustment: After pressing the button, the angle adjustment can be controlled.

Reverse lens: When turned on, reverse the camera.

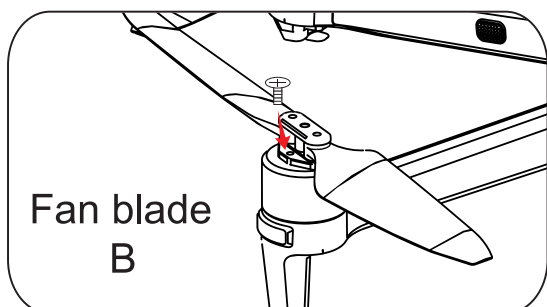
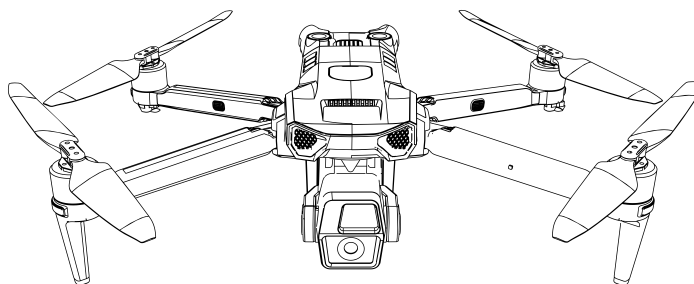
Aircraft assembly



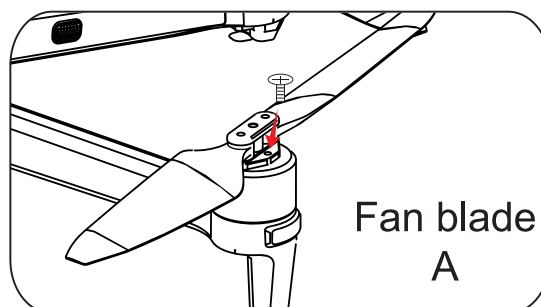
- 1. High Definition Camera
- 2. Propeller
- 3. Motor
- 4. LED lamp
- 5. Smart Lithium Batteries
- 6. Memory card slot

1. Propeller Installation

Please ensure that all propellers are installed in the correct position as shown in the figure below.

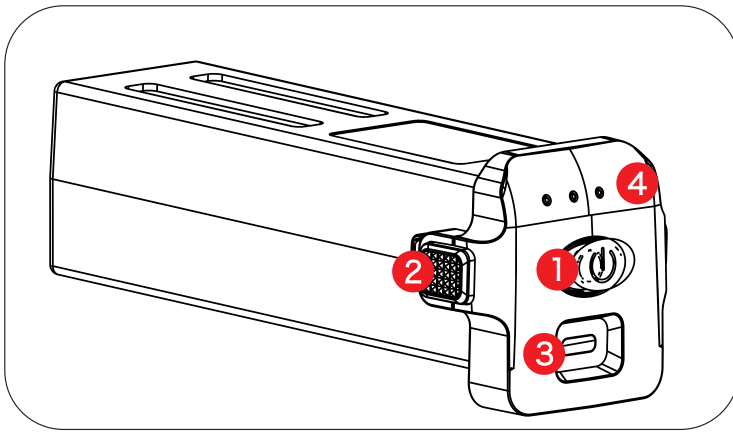


Lock blades into two screws.



Lock blades into two screws.

2. Lithium Battery for Aircraft



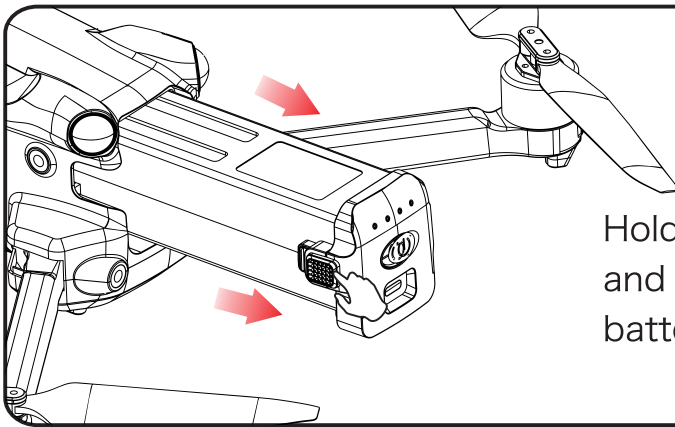
1. Battery Switches
2. Button
3. USB charging interface
4. Battery power indicator

Low ← Electric quantity → High



Short press to turn on,
long press to turn off

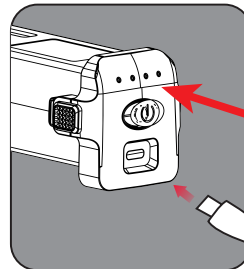
Charging of Batteries and Remote Controllers for Aircraft



Hold the button of the battery
and pull it back to remove the
battery from the UAV.



Mobile adapter:
5V = 2A
(not included)

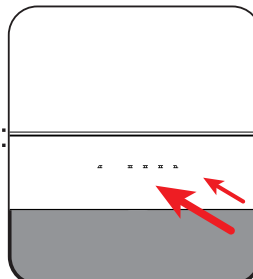


Charging time:
about 5-6 hours
(depending on the
charging power
supply)

The light is always on to indicate full



Mobile adapter:
5V = 3A
(not included)



Charging time:
about 3-4 hours
(depending on the
charging power
supply)

Charging method of
remote controller



The indicator light stays on while charging and turns off when fully charged.

Note: The remote control should be turned off when charging

Matters needing attention:

1. Make sure the battery is fully charged before each flight.
2. Keep the battery of the aircraft while charging, and the remote control is closed.
3. The battery will automatically stop charging when it is full of electricity. It is recommended that the battery be disconnected from the charger when it is full.
4. Do not use batteries for more than 5 days. Store the batteries in 40%-65% capacity, which can prolong the service life of batteries.
5. If the aircraft enters the low-power alarm (the aircraft lights flicker quickly), it should land as soon as possible and stop flying, replace new batteries or charge batteries.
6. If the remote controller enters the low-power alarm (the remote controller will always issue a "beep" prompt sound), it should stop using as soon as possible and charge the remote controller.

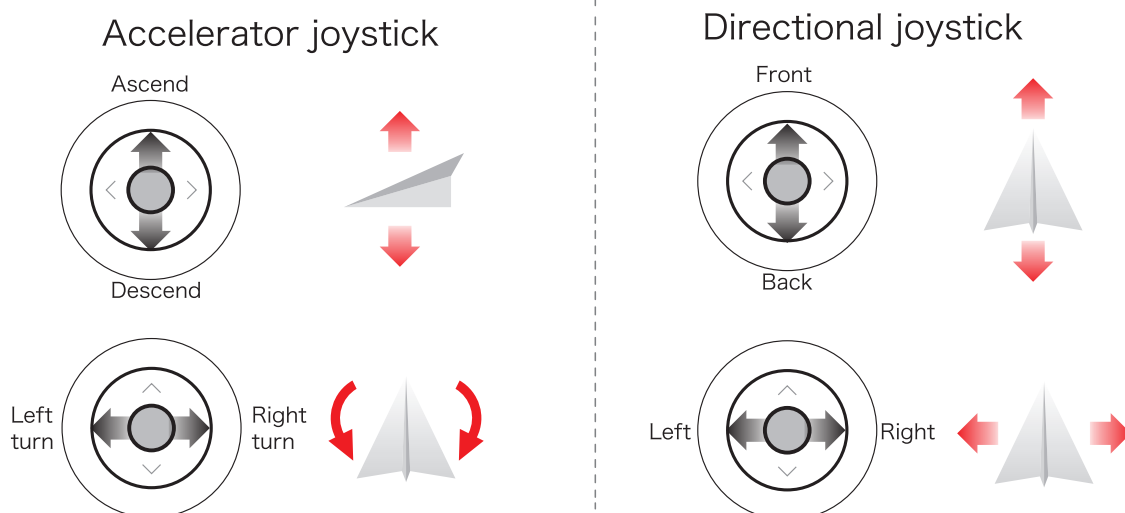
Tips:

1. Mobile power supply or vehicle power supply can be used for charging.
2. The charging time of the aircraft lithium battery is about 5-6 hours.
3. The charging time of the remote control's lithium battery is about 3-4 hours.

Cautions for charging:

- ※ Do not place live batteries in hot places, such as open fires or electric heating devices, or they will be damaged or exploded.
- ※ Do not hit or knock hard surfaces with batteries.
- ※ Never break down batteries.
- ※ Do not immerse the battery in water. The battery should be stored in a dry place.
- ※ Do not leave when charging.

Operating Method of Remote Controller



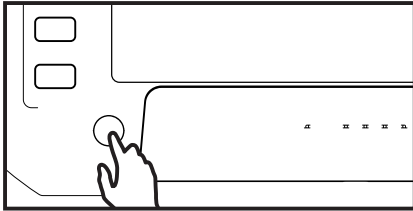
Flight Operational Guidance

Because of the large size of this aircraft, we only recommend that customers use this product outdoors to avoid unnecessary loss or damage.

(In non-GPS mode, press and hold the function button on the remote control to switch.)



Step 1: Press and hold the takeoff button to power on the remote controller. Switch to the right-hand throttle



Step 2: Short press and then long press the power button to power on and pair

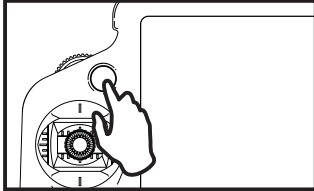
(Note: It takes 75 seconds for the system to boot up successfully)



Step 3: Turn on the power of the aircraft

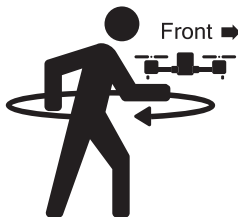
(It takes about 75 seconds for the remote controller to beep twice to indicate the success of frequency matching.)

Put the orbiter on the horizontal plane.
The lights on the front and rear arms of the UAV flash slowly.



Step 4 , geomagnetic calibration

Press the remote control button to enter the geomagnetic calibration mode. "The light flashes on the front and rear arms of the UAV



Step 5: Compass calibration - Part 1

Pick it up horizontally from the rear of the craft and make a full rotation (360°) with your body.

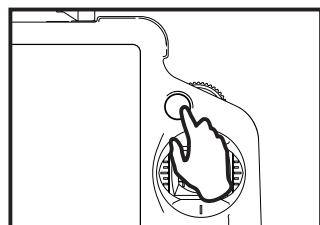
The rear arm light is steady on. (The remote control beeps)



Step 6: Compass calibration - Part 2

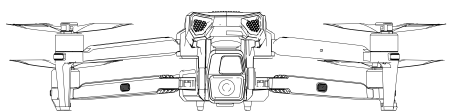
Pick up the aircraft from the bottom, face down, and make a full turn (360°) with your body.

The forearm light is steady on. (The remote control beeps)



Step 7: Gyroscope calibration

1. Place the drone on a level ground
- 2: Long press the button on the remote control to enter gyroscope calibration mode, and the drone's lights will flash rapidly
- 3: Place the drone on a horizontal ground surface

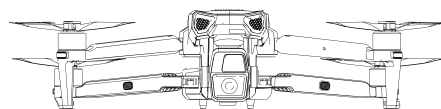
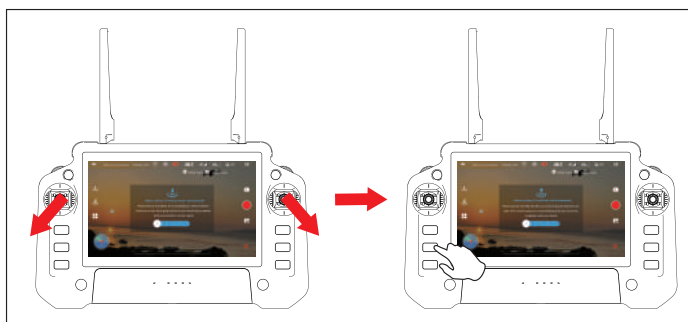


Step 7: GPS satellite search successful

- Place the aircraft back on the horizontal plane.
- The indicator red light flashes slowly. This indicates that the GPS is entering the satellite search state.
- The indicator blue light is constantly on. This indicates successful satellite search.
- This step will take a few minutes to complete.

Product Function Analysis

1. One-click take-off/landing



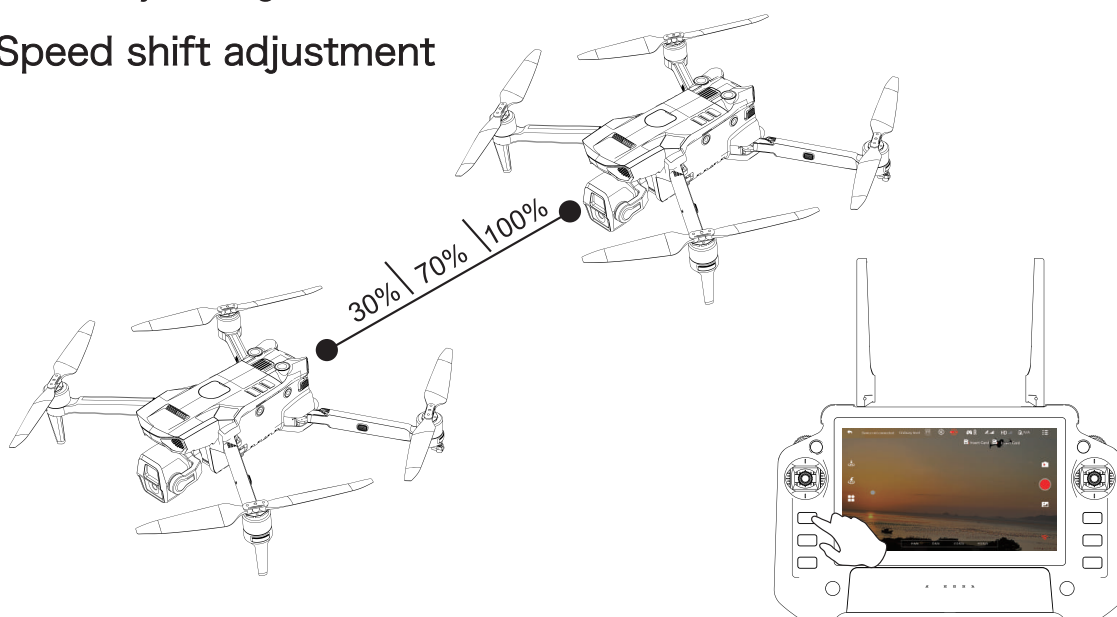
About 1.5m



Rotating propellers are dangerous. Do not use aircraft near crowds.

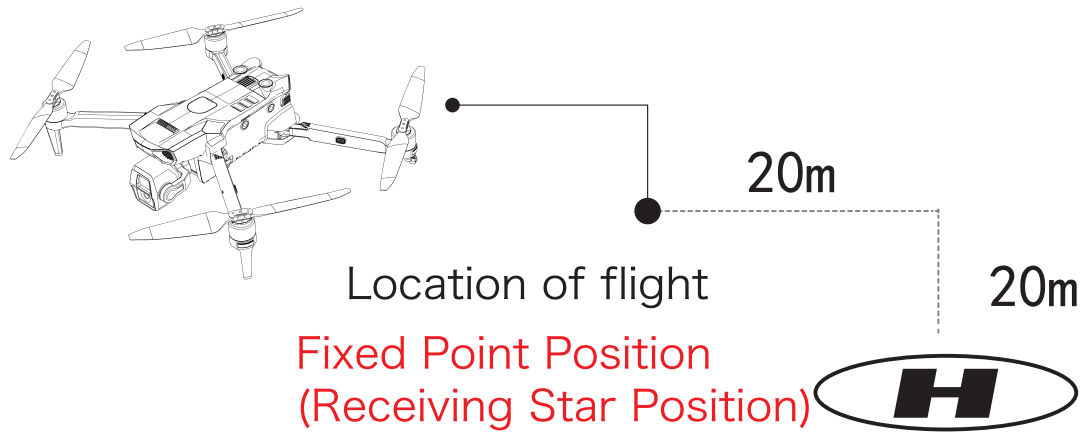
Press the remote control  lightly, the propeller starts to rotate, and automatically takes off and hovers about 1.5 meters away from the height **(please make sure the engine is headed forward)**. If you press the remote control  again, the aircraft will land automatically. Please note that when the aircraft is running, do not touch the propeller or motor in operation, in order to avoid unnecessary damage.

2. Speed shift adjustment



The default flight speed is in the first gear. Click the speed switch button  to increase the flight speed by.

3.GPS course reversal



The GPS return function enables the aircraft to return to the take-off point. This function can only be implemented in GPS mode. There are three types of return flight (RTH) modes for aircraft: GPS return/low-power return/no-signal return.

①. GPS return:



Press the  Return button on the remote control lightly, and the remote control will start emitting a "beep" sound. The aircraft will automatically return to the vertical above the takeoff point and then slowly descend to the takeoff point. Press the  Return button again to stop the return journey, and pull down the throttle lever to lower the aircraft to a safe area.

②. Low power return:

When the battery power is insufficient, it will trigger low-power return. When low-voltage return is activated, the aircraft will fly back to the air about 30 meters away from the operator, at which time, the operator can still operate and control the aircraft. At this point, pull down the throttle lever to land the aircraft in a safe place. When the power is exhausted, the aircraft will automatically return to the set starting point.

(Note: When entering low battery return mode, the joystick control on the remote controller does not work. The drone returns to the takeoff point and the directional control on the remote controller becomes ineffective during the descent. At this time, you can use the directional control on the remote controller to steer the drone to avoid obstacles.)

③. No-signal return

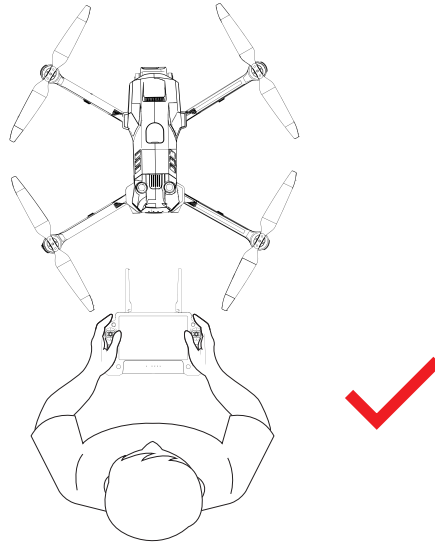
If the aircraft and the remote control lose connection, the aircraft will automatically enter the return mode. The aircraft will return automatically to the distance that the remote controller can connect. At this point, the operator can regain control of the aircraft.



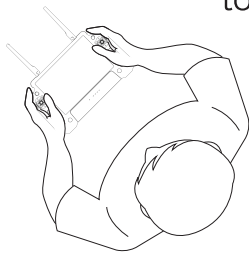
Note: This aircraft does not have obstacle avoidance function when returning.

4. Headless mode

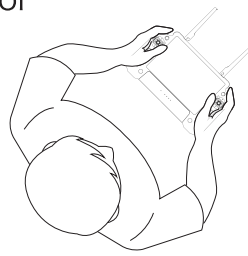
! Since the operator's operation position is very important to the realization of "headless mode" in frequency alignment, after entering "headless mode", please do not change the operator's operation direction, so as not to cause direction disorder, resulting in unnecessary loss and damage.



The orientation of flight operator
to frequency time operator



Do not change the
direction of operation

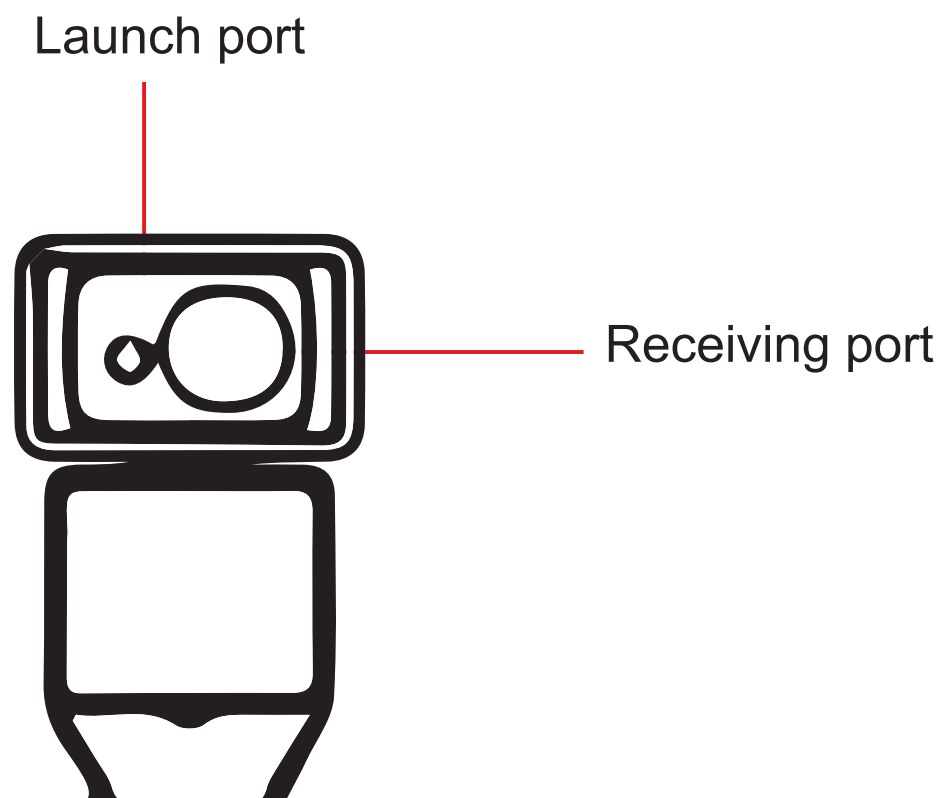


Do not change the
direction of operation

1. Turn the aircraft nose forward, press  on the remote control headless mode button to enter headless mode after takeoff, and click  again to exit headless mode.

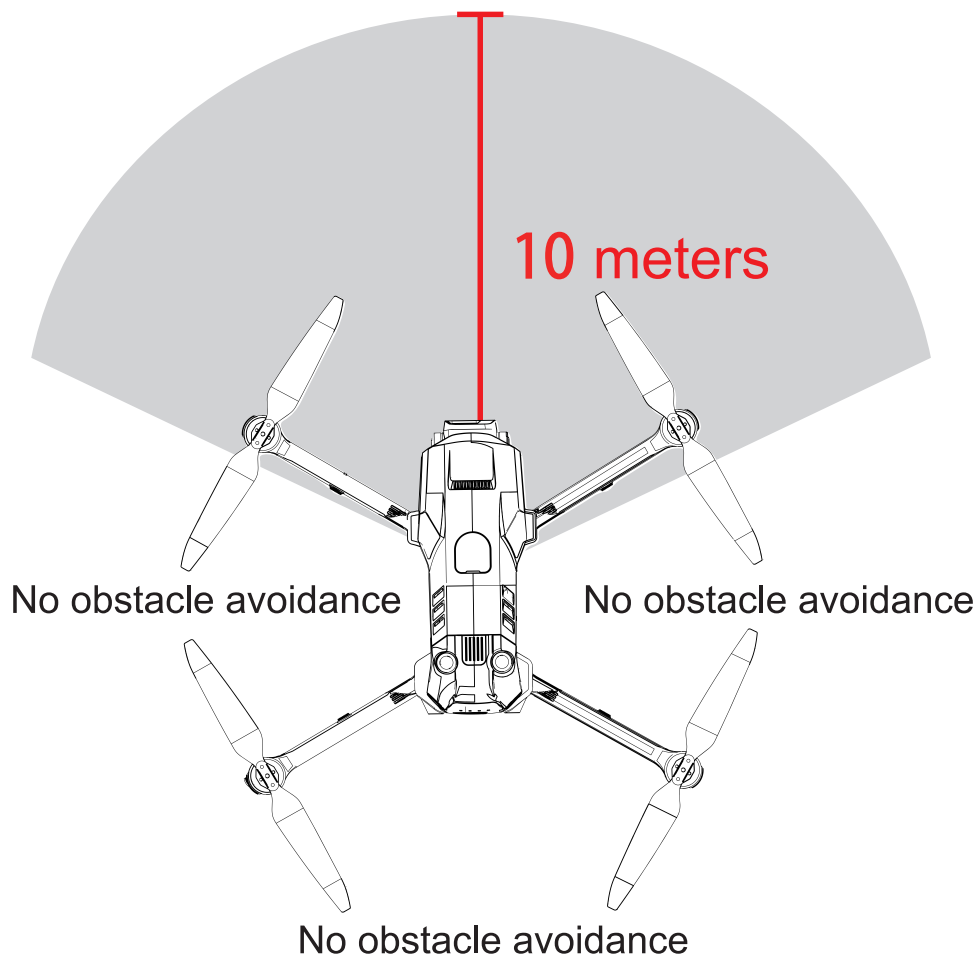
A. Working principle of obstacle avoider

Port signal pulse, the launch encounter obstacles within the range scan back after the pulse signal, after the scan range encountered obstacles fold return the pulse signal, receiving port received turn-back pulse signal unmanned aerial vehicle (uav) is obtained through a series of arithmetic and the distance between the obstacle after sending instructions to a halt to the unmanned aerial vehicle (uav), so as to achieve the effect of the obstacle avoidance.



B. Use and effect of obstacle avoidance function

1. When the drone is flying, as shown in Figure 1, the effective scanning range of the obstacle avoider is 10 meters in front of the drone. The scanning path is approximately between the two arms in the flight direction. Scan around 90°



2. When the drone flies on the left side, as shown in Figure 2, the effective scanning range of the obstacle obstructor is 20 meters in the flying direction of the drone on the left side, and the scanning path is about 90 between the two arms on the left side. The same is true for the scanning range of the rear fly or the right fly shock absorber.

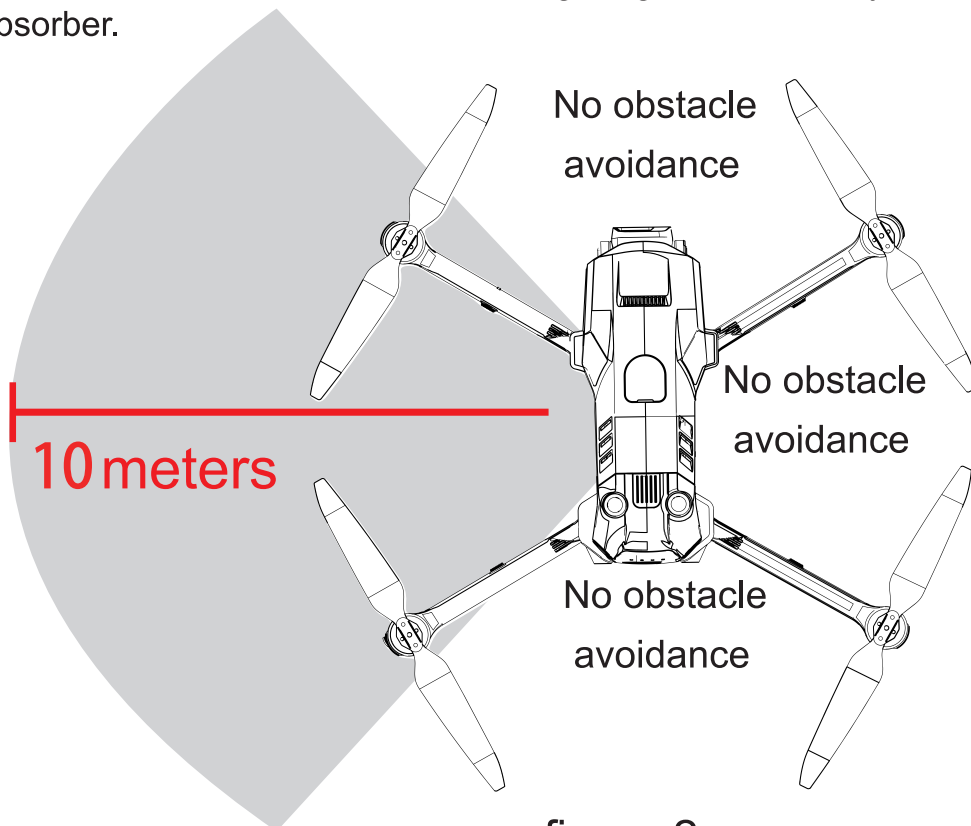
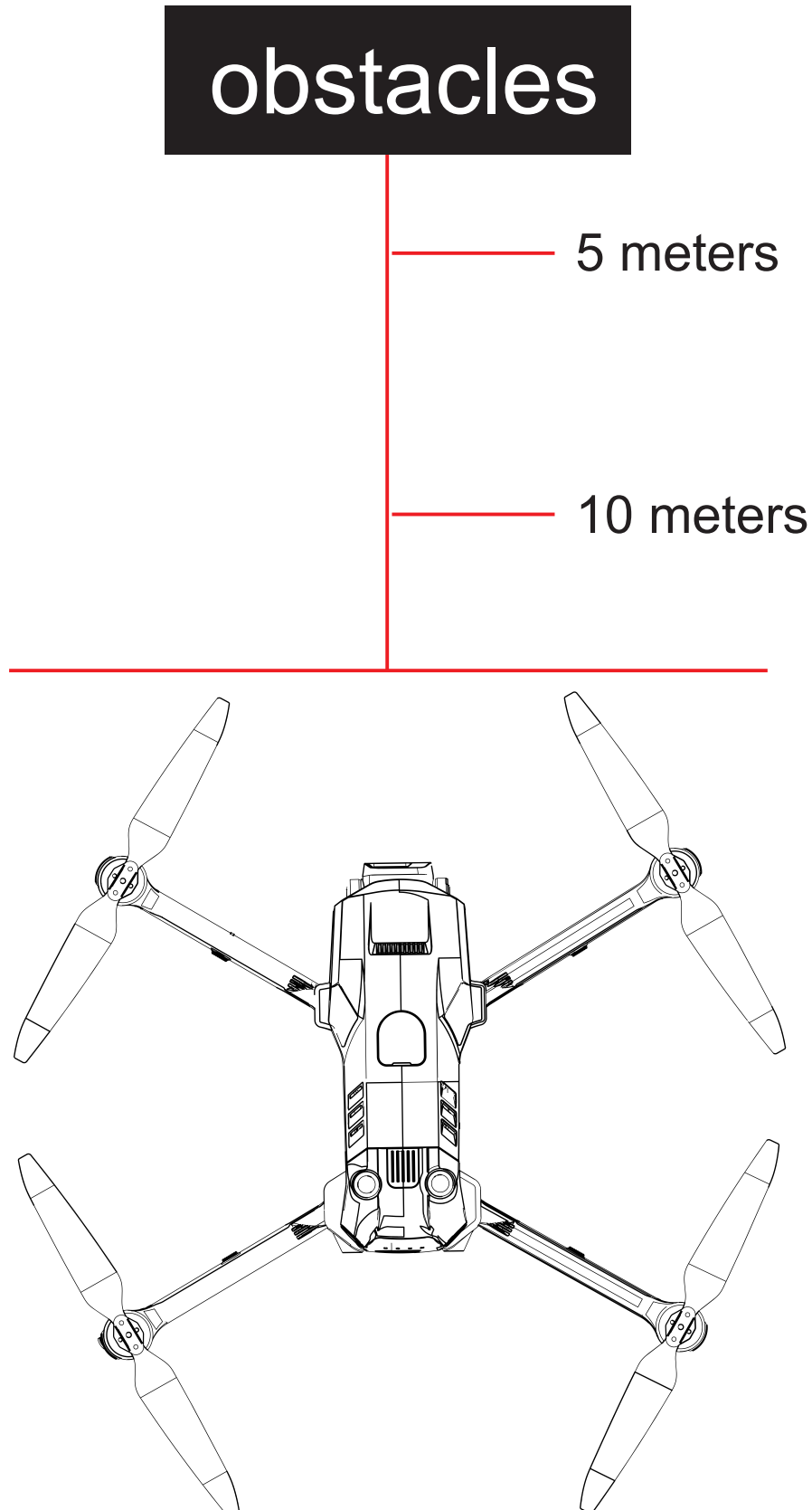
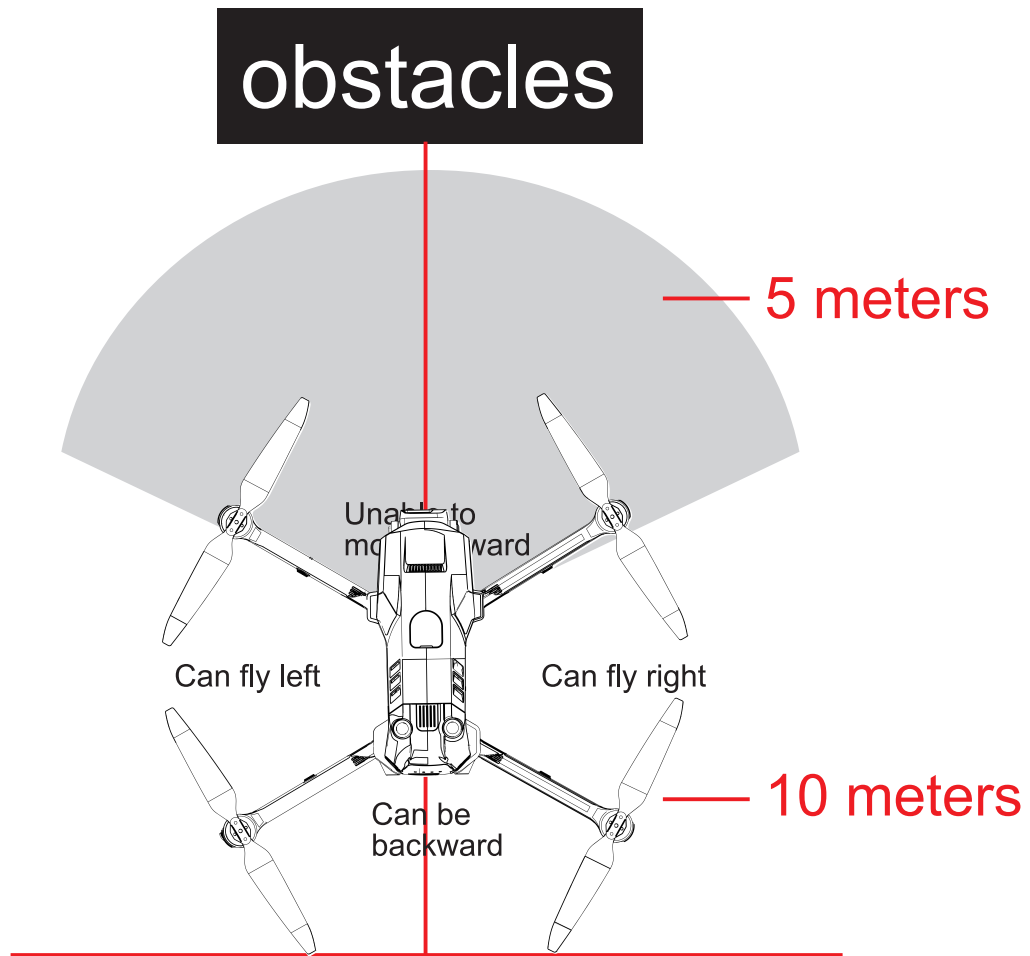


figure 2

3. The position where the UAV stops flying is determined by the flight speed, when the UAV is flying at full speed in low gear. After the drone scans the obstacle at 10 meters, it starts to calculate and issues a stop flight command. The position of the drone to stop flying is determined by the flight speed (the faster the flight speed, the closer the distance between the drone and the obstacle, and the opposite flight (The slower the speed, the farther the distance between the drone and the obstacle))



4. When the drone encounters obstacles and hovering within **10** meters of the flight direction, the drone cannot continue to fly in that direction, and can continue to fly after avoiding obstacles or to other obstacles within **10** meters. In the direction of flight.



5. When the UAV takes off, there are obstacles within **10** meters in the forward direction. The UAV cannot fly in this direction, but it can raise to avoid the obstacles and continue flying or fly in another direction with no obstacles within **10** meters.
6. When the drone performs the return flight, the obstacle avoidance function will be automatically turned off until the drone cancels the return flight.
7. The obstacle avoidance function is turned on by default in the normal gear, and other gears are automatically turned off

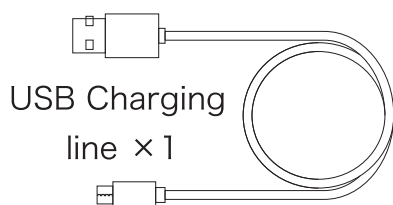
Accessories List



Fan blade a x 2



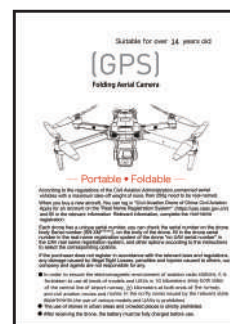
Fan blade b x 2



USB Charging
line x 1



The screwdriver x1



Instruction
manual x 1

Maintenance

1. Commonly used clean soft cloth to clean this product.
2. Avoid exposure to sunlight or heat.
3. Do not immerse the product in water, otherwise it will damage the electronic parts.
4. Check plugs and other accessories regularly. If any damage is found, please stop using them immediately until they are completely repaired.
5. Noise

The noise measurement results of this product's rotary-wing unmanned aerial vehicle (UAV) at hover and typical flight speeds are normalized to the A-weighted sound pressure level at a distance of 1 meter from the UAV. The noise test frequency range is 20Hz~20000Hz. Under flight conditions, the speed of the UAV during testing is 3m/s.

6. Lighting

The lighting purposes of this product: The front and rear arm lights serve to distinguish directions. The front arm light is (green) indicating straight ahead. The rear arm light is (blue) indicating straight behind in GPS mode, and (red) indicating straight behind in indoor mode.

Explanation of light language: None.

The lights of our product are solely used for decoration, beautification, and identifying the direction of unmanned aerial vehicles.

* All the information in this manual has been carefully proofread in order to be accurate.

If there are any printing errors or omissions, we reserve the right of final interpretation.