





Dreamer 4K

User Manual

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Introduction

Thank you for purchasing Potensic Dreamer 4K drone. Please read the user manual carefully and keep it for future reference. If you need help, please contact our support team (support@potensic.com) with your order number from Amazon or official website.

Potensic Dreamer 4K is equipped with an intelligent flight control system, which can realize functions such as point of interest, intelligent follow me, and automatic return home.

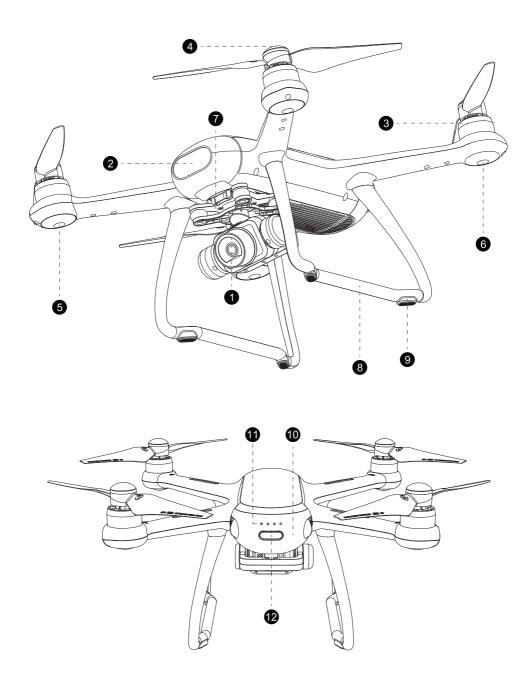
With 1 / 3-inch CMOS image sensor and Electric Image Stabilization system, the drone can shoot 2.7K 30 fps video and high-definition picture with its 8.0MP camera.

Daily maintenance

- 1. Use a soft clean cloth to clean the product.
- 2. Avoid exposure to the sun or heat,
- 3. Do not immerse this product in water, otherwise the electronic parts will be damaged.
- 4. Regularly check the plug and other accessories. If there is any damage, please stop using until it is completely repaired.

Packing list Drone with camera x1 Remote control x1 Smart battery x1 AC cable x1 Extra blades x 1 pair (CCW & CW) Drone charger x1 USB charging cable x1 User manual x1 (for remote control)

- 01 -



- Camera
- 4 Blade

Damping plate

- 2 Dreamer LED light
- 5 Front footlight
- 8 Tripod

3 Motor

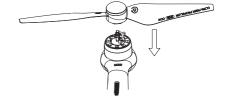
- 6 Rear footlight
- 9 Pad

- 10 Smart battery
- 11 Power indicator
- 2 Power switch (after short pressing once, long press for 2 seconds to switch on/off the drone)

Installation

1. Propeller





When installing blades, pay attention to the "CW" and "CCW" marks on the blades.

Corresponding to the "CW" and "CCW" marks on arms of the drone.

Press down the blade in alignment with the central axis, and rotate.

According to the direction marked by the blade lock until it is fully screwed. After installation, the propeller will pop up and lock. Removal of the blades are reverse of the above steps.

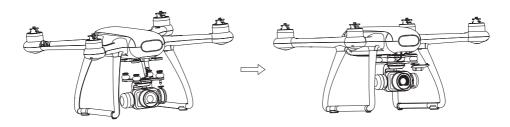


▲ Make sure the propellers are installed correctly and tightly.

2. Camera

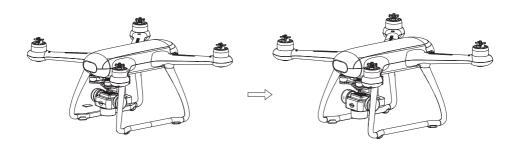
The camera has been installed at the factory and can be used after power on. But if you are replacing the camera and install it, the installation steps are as follows:

- 1. Install the damping ball of the camera onto the damping plate.
- Insert the camera power cable and steering gear cable into the connector of drone adapter plate respectively.
- 3. Close the cover plate of the connecting line to complete assembly of the camera.



3. Micro SD card

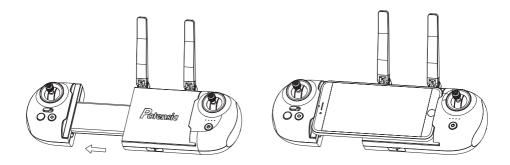
Insert the micro SD card into the camera micro SD card slot. It is recommended to use branded micro SD card products, such as SanDisk, Kingston or Samsung, requiring a micro SD card capacity of 4GB--256GB(at most). All pictures and video files will only be recorded in micro SD card, instead of App or mobile phones. It can download to mobile phones from the App. Note: micro SD card is not included.



Insert micro SD card with the metal side up

4. Mobile phone clip

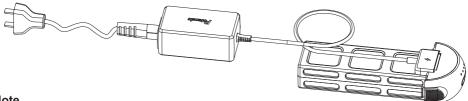
Pull the remote control pull-out board, and then put into a mobile phone. The size range of clamping: 97-178mm.



Charging

1. Drone smart battery

Please return in time and charge the battery when the drone in low battery. Connect the adapter correctly as shown in the figure to charge. The indicator flashes when charging, and goes out when fully charged. It takes about 2 hours.



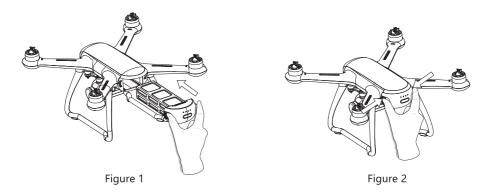
Note

- 1. Please use the original charger to charge.
- 2. Do not charge on a carpet to avoid fire.
- 3. Recharge every 3 months to keep battery active.
- 4. Do not put a charged battery under high temperature, such as open fire or electric heating device, otherwise it will be damaged or explode.
- 5. Do not strike or knock surface of hard objects with a battery.
- 6. Do not disassemble a battery.
- 7. Do not leave the battery alone during charging.

Installation and removal of battery

Insert the battery in the right direction as shown in Figure 1.

Press the left and right sides of the battery and pull out the battery as shown in Figure 2.



Note: When hearing a "click" sound, the battery is successfully installed in place.

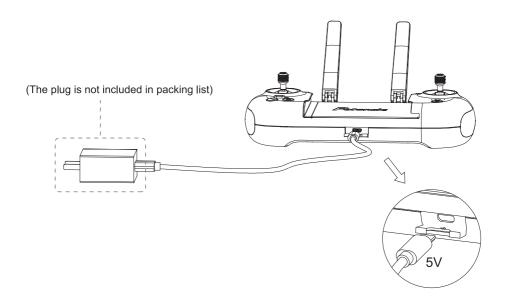
Charging indicator status

LED 1	LED 2	LED 3	LED 4	Current battery level
Ö	0	0	0	0%~25%
Ö	÷	0	0	25%~50%
Ö	÷Ö:	Ö	0	50%~75%
Ö	Ö	Ö	Ö	75%~100%
0	0	0	0	Fully charged



2. Remote control charging

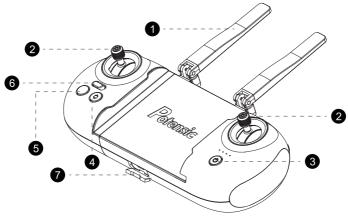
Connect the Micro USB interface of the remote control to the commonly used maximum 5V/2A charger. It takes about 2 hours to be fully charged.



Remote control

1. Remote control details

Dreamer 4K uses a 2.4G remote control with complete function buttons. It can support various operations and settings of the drone and camera within a maximum communication distance of 800m, and can display real-time HD pictures on the mobile device through PotensicPro app. The remote control has a built-in rechargeable lithium battery, which can work continuously for up to 4 hours.



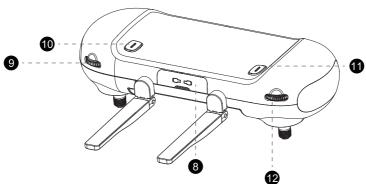
- Antenna
 Receive and send transmission signal
- 2 Control stick (mode 1)

Push the left stick up or down to control the take off or landing of the drone; push the left stick left or right to control the drone to turn left or right; short press the middle key of the left stick to switch the GPS mode or altitude mode of the drone.

Push the right stick up or down to control the drone going forward or backward; push the right stick left or right to control the drone to fly left or right.

- 3 Power switch Long press 2s to turn the remote control on / off.
- 4 One-click take-off / landing Long press 2s to take off or land.
- 5 One-click return Long press 1s to return.
- 6 Standard mode/sport mode

 Push the key to adjust different modes of the drone. The standard mode is 5m/s and the sport mode is 8m/s.
- Micro USB charging port Charge through this Mirco USB interface.



- 8 Control sticks storage box
 A box to place your control sticks.
- 9 Camera adjustment thumbwheel Turn the thumbwheel to adjust shooting angle of the camera.
- Photograph
 Press to take one picture at a time.
- Video-recording

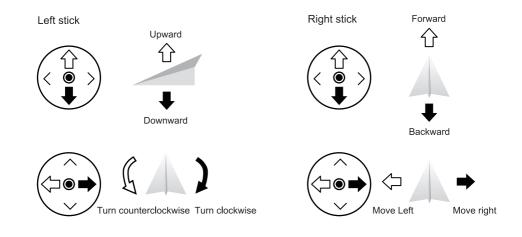
 Press once to record, and then press once to exit.
- Camera brightness adjustment thumbwheel

 Turn the thumbwheel to adjust the exposure of the camera.

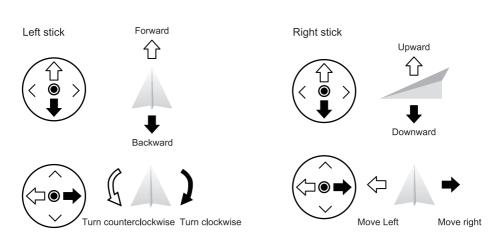
2. Remote control mode

There are two remote control modes of this product, i.e. mode 1 and mode 2. Mode 1 is the default setting.

Mode 1



Mode 2



Drone App "PotensicPro"

Android user

Please search and download the drone App "PotensicPro" in Google Play or scan the QR code below to download. This App is compatible with Android 5.0 and above.



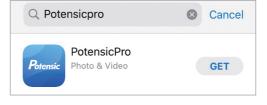


For Android

iOS user

Please search and download the drone App "PotensicPro" in APP store or scan the QR code below to download. This App is compatible with IOS 9.0 and above.





For iOS

Register and connect

After downloading the drone APP, it is necessary to register a personal account before using.

Register and log in

Fill in email - fill in password - view agreement - click register. Please log in after successful registration. (Note: please keep your mobile phone connected with network during registration)

WiFi connection steps

Turn on drone- turns on WiFi setting on mobile phone - select WiFi account "Potensic D1_XXXXXX "- enter WiFi password "12345678"- click to connect.

Note: when log in to the App for the first time, please enter the map interface when connected to the network to download map

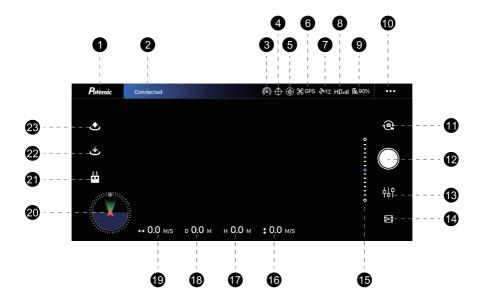
Drone flight mode

Dreamer 4K adopts a new generation of Potensic flight control, which supports the following two flight modes.

GPS mode: GPS module can realize precise hovering, path flight and other intelligent flight modes. In the GPS mode, when GPS signal is no less than 6, it can be used for precise positioning; when GPS signal is less than 6, the drone cannot realize accurate positioning, only provide altitude stabilization, and does not support smart flight function.

Altitude mode: Without GPS module, it can only provides altitude stabilization. At this time, the operator manually control flight of the drone with joystick. Beginners is not recommended.

Operation interface



0	Return	to	the	menu
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6 GPS mode / altitude mode

Drone status

GPS signal level

Standard mode / sport mode 8 Transmission signal level

4 Head mode / headless mode 9 Drone power

5 Lock / unlock

10 Setting interface

11 Photo/ Video switch

12 Photo/ Video

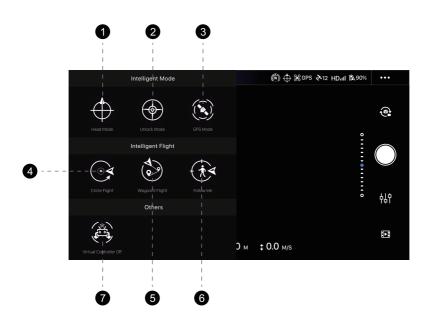
13 Camera setting

14 Files

15 Camera pitch adjustment

- 16 Vertical flight speed
- 17 Flight height
- 18 Distance
- 19 Horizontal flight speed
- 20 Altitude ball / map

Intelligent flight mode



21 Intelligent flight mode settings

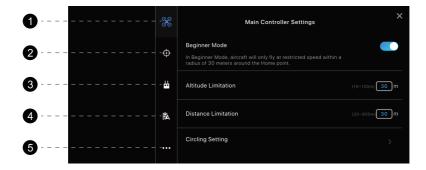
23 One-click take-off / one-click landing

22 One-click return

- Headless mode / head-hold
 - 6 Follow me mode
- 2 Lock / unlock

- 7 Virtual control stick
- 3 GPS mode/ Altitude mode
- 4 Circling mode
- Waypoint mode

Setting interface



- Main controller settings
- 3 Remote control settings
- More

- 2 Calibration settings
- About smart batteries

Flight precautions

- 1. Check if the remote control, smart flight battery and mobile equipment are fully charged.
- 2. Check if the device body is complete and the propeller is installed correctly.
- 3. Check if the camera works normally after power on.
- 4. Check if App works normally.
- 5. Check if Micro SD card card is inserted and make sure the camera is clean.
- 6. Low power protection: the low power alarm is triggered when power is less than 20%. The drone will intelligently trigger low power return according to the distance between the current position and home point.
- 7. Loss of connection protection: after losing connection for 3 seconds, one-click return will be triggered; during return, the drone will hover if reconnect successfully.
- 8. Out of control protection: if the horizontal inclination angle is over 80 degrees for 0.5 seconds, the drone will be locked automatically to protect the motor.

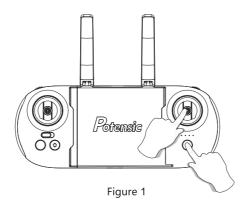
Connection and calibration

1. Connect drone with remote control

The remote control and the drone are frequency-connected at the factory and can be used after power on. But if you are replacing the remote control, it is necessary to re-connect the new remote control and the drone. The connection steps are as follows:

- A. Insert the battery to the drone, short press the power switch, and then long press for 7 seconds. At this time, the battery indicator light is solid on, and the drone is ready for connection.
- B. Press and hold the middle button of the right stick on the remote control, long press power button at the same time, the remote control is ready for connection. (Picture 1). At this time, the four footlights of the drone flash left and right alternatively, and the power light of the remote control flashes slowly.

C. The drone and remote control would connect automatically, you will hear "beep" sound from the remote control end, both the power light(remote control) and the drone footlights are solid on, which indicates the drone and the remote control is successfully connected.



2. Connect drone with phone app

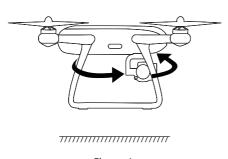
First, turn on the drone, enter the mobile phone setting option, search "Potensic D1_XXXXXX" in the WiFi setting and connect. Then, start the mobile phone APP "PotensicPro" to enter the operation interface.

3. Geomagnetic calibration

The first flight requires geomagnetic calibration. If drone is under geomagnetism disturbance, it may require recalibration as follows:

- Step 1: enter the PotensicPro App setting interface, click the second column, and select geomagnetic calibration in the list. The left front light flash green and the left rear light flash red indicate that it's ready for calibration.
- Step 2: rotate the drone 720° horizontally, than the right front light flash green and right rear light flash red. (Picture 1)
- Step 3: rotate the drone 720° vertically with camera upwards. The four indicator light are solid on(the 2 front lights are green while the rear lights are red), and calibration is completed. (Picture 2)

Note: if the left front light flash green and the left rear light flash red slowly, it indicates that calibration fails. It is recommended to recalibrate geomagnetic after changing the take-off location.



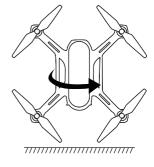


Figure 1

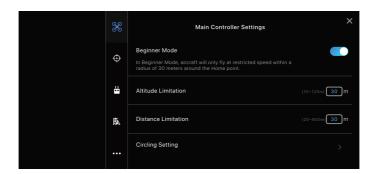
Figure 2

Function details

Safe flight tips

The beginner mode is in default. Under the beginner mode:

- A. The flight distance is limited to 0 ~ 30m
- B. The flight altitude is limited to 0-30m



1. Take-off and Landing

Take-off mode 1: push the left and right stick inwards 45 degrees(Picture 1) at the same time, unlock the drone or click the App unlock icon , and push up the throttle lever.

Take-off mode 2: long press the "take-off and land" button for 2 seconds, there will be a short "beep" sound, or click the icon on the App . At this time, the drone will slowly take off and hover at a height of about 1.2 meters.

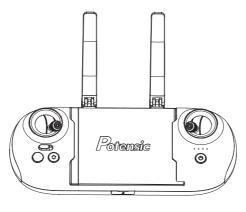


Figure 1

2. Return to home (RTH)

The smart return to home (RTH) function enables the drone to return to the last recorded take-off point. This function shall be achieved in GPS mode.

There are three types of return to home (RTH): one-click return / smart low-power return / no signal return.

*One-click return:

Remote control: long press the "HOME" button on the remote control, there will be continuous "beep" sound, and the drone will return. Long press "HOME" button again to exit RTH automatically, and "beep" sound disappears.

APP control:

Click the "HOME" icon **s** on the app to start one-click return, click the icon **s** again to cancel.

*Smart low-power RTH:

Low-power alarm: when power of the drone is less than 20%, there is continuous "beep" sound from the remote control and the battery icon on the App flashes.

Low-power return: the drone system will automatically determine whether to return according to the distance and battery power. When the drone returns, its four footlights remain flashing until it lands on the ground.

*No signal return:

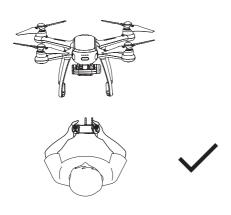
If the drone lose its connection to the remote control, it will automatically enter the return mode. The drone will automatically return to the ground, If the drone and the remote control are reconnected during return. The drone will hover at this time, and the operator can control again.

Note: the drone does not have automatic obstacle avoidance function. If the drone crashes into buildings or other obstacles on the way back, it will fall and break.

3. Headless mode

Note:

Before takeoff, the operator's position is very important for "headless mode". Therefore, after entering "headless mode", please do not change operator's direction to avoid direction confusion or unnecessary loss and damage.



The direction of operator before take-off





Do not change the direction of operation





Do not change the direction of operation

How to start headless mode

Put head of the drone faces straight ahead, click headless mode icon in the App to enter headless mode after take-off, and click again to exit.

Headless mode

The forward direction of the drone is the direction of the operator and the remote control during take-off. Regardless of the front direction, if the operator pushes the joystick forward and backward, the drone will fly forward and backward accordingly; if the operator pushes the joystick left and right, the drone will fly left and right. It is very important for the operator to remain his/her position or direction otherwise it may cause direction confusion of the drone.

4. Circle flight mode

Click the icon (o≠ to enter circle flight mode

Under normal flight conditions (flight altitude is greater than 5m), the drone will take the current position as the circling center by default, with a radius of 10m and a speed of 3m/s, and circle clockwise.



5. Follow me mode

When normal flight altitude is above 5m, and GPS signal is no less than 6, the drone will follow move position of mobile phone. In follow me mode, the drone can fly beyond the maximum distance limit.



6. Waypoint flight mode

Click the icon to start the waypoint flight mode.

Set multiple position points on the map, and the drone will fly in the order of set points(15 point at most). The map will identify the serial number of each point.

The normal flight altitude is more than 5m, and the GPS signal is no less than 6. The drone flies to designated points on the map in the sequence of the number of points in the shortest path, and hovers at the last designated point.



Specification

Drone

Take-off weight: 760g ± 5g

Maximum ascending speed: 5 m/s (sport mode); 3m/s (standard mode)

Maximum descending speed: 2 m/s (sport mode); 2 m/s (standard mode)

Maximum horizontal flight speed: 8 m/s (sport mode); 5 m/s (standard mode)

Flight time: 31 minutes

Working environment temperature: 0 ° - 40 ° C

GPS: GPS + GLONASS

Working frequency: 2.402 - 2.483GHz and 5.725 - 5.850GHz

Transmission power: 2.4GHz: < 18 dBm 5.8GHz: < 24 dBm

Hovering precision (vertical): + 0.1 m (when GPS works normally)

Hovering precision (horizontal): + 0.3m (when GPS works normally)

Camera

Image sensor: 1 / 3-inch Sony CMOS; 8 megapixel

Lens: FOV 78°

Picture maximum resolution: 3840*2160

Photo shooting mode: single photo

Lens rotatable range: + 0° - 90°

Video resolution: 2.7K(2688 x 1512 30p)

Maximum video storage code stream: 20 Mbps

Supporting file system: FAT32

Image format: JPEG

Video format: MP4 (AVC / H.264)

Micro SD card: 4-256GB with transmission speed of class10 and above.

Working environment temperature: 0° to 40°C

Remote control

Working frequency: 2.402 - 2.483GHz

Maximum effective distance of signal: 800m (no interference or blocking)

Working environment temperature: 0° ~ 40°C

Battery: 450mAh lithium battery, 1S

Equivalent isotropic radiation power (EIRP): 2.4GHz: < 16 dBm

Working voltage/current: 3.7 V/0.15 A

Smart flight battery

Capacity: 3000mAh

Voltage: 15.2V

Battery type: Li Po 4S

Capacity: 45.6Wh

Overall weight of battery: 265g

Working environment temperature: 0° ~ 40°C

Maximum charging power: 26.25W

Charger

Rated input: 100-240V ~ 50/60Hz, 1A

Rated output: 17.5V, 1.5A

Rated power: 26.25 W

Frequent Q&A

Problem	Solution
Device is not connected properly	Restart drone and remote control.
Cannot unlock	Check if the drone is geomagnetic calibrated.
Cannot find GPS signal or GPS level drops	Check the surrounding environment of the drone to see if there is high-frequency signal interference.
The drone cannot return to home	Make sure there are no less than 6 GPS signal show up on the App before take-off.
The drone jitters or video jitters	a. Check if the propeller and motor shaft of the drone are deformed or cracked, if yes, please replace;b. Check if screws are fixed in place after disassembly.
Can't take photos or record videos	a. Check if the drone is inserted with a Micro SD card.b. Check if Micro SD card format is correct.c. Check if Micro SD card is full.

Drone Indicator Introduction

Normal status	Light status	1s			France 2a	
Normal status	Time	1/4	1/4	1/4	1/4	From 2s
Low power of the drone	Four lights flash slowly continuously	On		Off		Continue cycling
Binding status / power on	Four lights flash quickly continuously	On	Off	On	Off	Continue cycling
Altitude mode	Four lights are solid on	On			Continue cycling	
000	The front light is solid on	On			Continue	
GPS mode	The rear light flashes slowly continuously	On Off		Continue cycling		
Headless mode	The front light flashes slowly continuously	On Off		Off	Continue cycling	
ricadiess mode	The rear light is solid on	On			Continue cycling	
Emergency stop or out of control (motor stop)	Four lights are solid off and temporarily on	Off On		Continue cycling		

Notice and disclaimer

Statement:

- 1. This product is not a toy, but a precision equipment integrating mechanical, electronic, aerodynam ics, high-frequency emission and other professional knowledge, which requires correct assembly and debugging to avoid accidents. The product holder should 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 drones and older than 14 years old.
- 3. In case of use, operation, maintenance and other problems. Please contact the local distributor or relevant personnel of the company.

Safety precautions:

Keep away from people when flying the remote-controlled drone. Improper assembly or damage to the body, poor electronic control, and unfamiliar operation may lead to unpredictable accidents such as drone damage or personal injury. Operators should pay attention to flight safety, and understand responsibilities caused by negligence.

1. Keep away from obstacles and people

The remote controlled drone is uncertain in flight speed and state during fly, which poses potential danger. It shall be far away from people, high-rise buildings, high-voltage wires, etc. during fly, and avoid flying in the bad weather such as wind and rain, thunder and lightning, to ensure safety of operator / surrounding people and property.

2. Keep away from humid environment

The interior of the drone is composed of many precise electronic components and mechanical parts. Therefore, it is necessary to protect the drone from humidity or prevent water entering the body, to avoid accidents caused by the failure of mechanical and electronic components.

- 3. In order to properly use this product, please use original parts for modification or maintenance to ensure flight safety. Please operate and use this product to the extent permitted by its functions, and it shall not be used for illegal purposes beyond safety laws and regulations.
- 4. Avoid flying alone

It is difficult to learn control skills of the drone in the early stage. It is necessary to avoid flying alone as much as possible, and needs instruction of experienced operators.

5. Safe operation

Please operate the remote controlled drone according to your own status and flight skills. Fatigue, poor mental state or improper operation will increase the probability of accident risks.

6. Keep away from high-speed rotating parts

When the drone rotor is rotating at high speed, keep operators, surrounding people and objects away from rotating parts to avoid danger and damage.

7. Keep away from heat source

The remote controlled drone is composed of metal, fiber, plastic, electronic components and other materials. Therefore, it is necessary to keep away from the heat source as far as possible, prevent sunlight, avoid deformation or even damage due to high temperature.

Note:

This product has been tested to meet requirements of FCC Part 15 for Class B digital products. These regulations ensure that this product will not have a harmful impact on the residential environment during installation and use. This product will radiate RF energy when working. If not installed and used according to instructions, it may cause interference to wireless communication.

- However, in some specific installation and use occasions, there may be interference. Users can
 determine whether interference is caused by the product by switching on and off. If this product does
 interfere with wireless and video receiving equipment, users may take the following corrective
 measures:
 - Adjust the orientation of the receiving antenna appropriately.
 - · Increase distance between the product and receiving equipment

- Connect the device to a socket with a different circuit from the receiver.
- Seek assistance from a dealer or an experienced wireless / video technician.
- The manufacturer shall not be responsible for any wireless and video interference caused by illegal modification of the equipment. Because these modifications and changes are beyond the user's operation permission.

Warning and tips

- 1. The package and instructions contain important information and should be properly kept.
- 2. It is your responsibility to ensure that this drone will not cause injury and property loss.
- 3. The commissioning and installation of the drone shall be carried out in strict accordance with operation instructions. The drone shall keep a distance of 1-2 meters from users or other people during fly to avoid the drone from colliding with heads, faces and bodies of people during fly and landing.
- 4. Our company and retailers shall not be responsible for any loss, damage and human injury caused by improper use or operation.
- Adults should provide guidance on children when flying. Children under 14 years old are not allowed to operate this product.
- 6. Please install and use correctly according to instructions or packaging requirements. Some parts shall be assembled by adults.
- 7. This product contains small parts, please keep it out of reach of children to prevent dangers of eating or suffocation.
- 8. It is strictly forbidden to fly on the road or in water-gathered places to avoid accidents.
- 9. Please put packing materials away in time to avoid casusing harm to children.
- 10. Do not dismantle or modify the drone, which may cause failure.
- 11. The battery of charger battery box shall be plugged into the specified power source as marked on the product.
- 12. The remote control has a built-in lithium battery, which does not need to be replaced.
- 13. Use only the original charger.
- 14. The charger is not a toy.
- 15. The remote control uses a 3.7V built-in lithium battery.
- 16. When charging the rechargeable battery, it shall be carried out under the supervision of an adult. When charging, it is necessary to keep away from flammable materials. The guardian should not leave the drone outside the surveillance range during charging
- 17. Please do not short circuit or squeeze the battery to avoid explosion.
- 18. Do not mix different types of lithium batteries.
- 19. The drone uses a smart lithium battery, which can be recharged when plugged in or out.
- 20. Do not short-circuit, decompose or put the battery into a fire; do not place the battery in a high temperature and hot place (such as in a fire or near electric heating devices).
- 21. The drone shall be used far away from other electrical equipment and magnetic objects to avoid mutual interference.
- 22. Please keep a safe distance from propellers rotating at a high speed to avoid dangers of wringing and cutting.

- 23. Keep the model away from ears! Misuse may cause hearing loss.
- 24. Please use a mirco USB 5V charger instead of higher voltage charger.
- 25. In order to ensure requirements for magnetic environment of the aviation radio station. The use of model remote control shall be stopped as required within periods and areas of radio control orders by relevant national departments.
- 26. Keep your drone in line of sight.
- 27. Don't fly in the crowd.
- 28. Do not fly over sports venues or events.
- 29. Please totally learn about airspace restrictions and requirements.



CHOKING HAZARD -Small parts. Not for children under 3 years.





Warning: This product can only be used by adults or children above 14 years old. Children under 14 vears old need supervision by an adult

Warning: battery charging shall always need supervision by an adult. Unplug the battery when it is fully charged. Do not overcharge.







