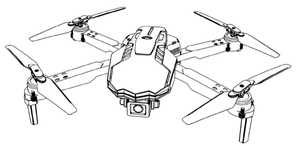
AGE 14+

# FOLDING DRONE WITH OBSTACLE AVOIDANCE FUNCTION OPERATING MANUAL

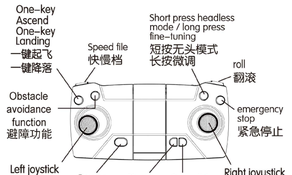
# 避障功能折叠无人机使用说明书



*Please read this manual carefully before operation and keep it properly for future reference.

*请在飞行前仔细阅读说明书并妥善保管以便日后参考。

## KNOW YOUR REMOTE CONTROL
## 认识你的遥控器



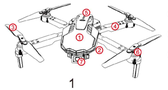
One-click calibration 一键校准

## KNOW YOUR DRONE
## 认识你的无人机

The drone uses the 2.4G frequency band, which can be operated by multiple people at the same time without interfering with each other. Through the remote control, the drone can be controlled to achieve functions such as flight, rollover, fine-tuning, one-key take-off, one-key landing, speed headless mode, calibration, height setting, obstacle avoidance and other functions.

无人机采用2.4G频段，可多人同时操作而互不干扰。通过遥控器可操控无人机实现飞行、翻滚、微调、一键起飞、一键降落、速度、无头模式、校正、定高、避障等功能。

① Upper Casing 机壳上盖
② Lower Casing 机壳下盖
③ Propeller 风叶
④ Arm 机臂

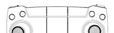


⑤ Battery 电池
⑥ Motor 电机
⑦ Camera 摄像头



## ACCESSORIES 配件表

DRONE x1 (Battery Included)
无人机 x1 (内含电池)



Remote Control x1
遥控器 x1

Backup Propellers Ax2 Bx2
备用风叶 Ax2 Bx2

Protective Guard x4
防护架 x4

USB Charger x1
USB充电器 x1

Screwdriver x1
十字螺丝刀 x1

User Manual x1
说明书 x1

### Notes 注意：

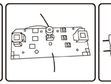
Please check the number of accessories carefully (as shown above).Please provide proof of purchase and contact the store for replacement if any missing parts.

请仔细清点各配件及数量（如配件表），如果发现不齐全，请提供购买凭证，及时联系销售商家补换货。

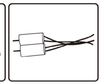


## OPTIONAL ACCESSORIES LIST
## 可另购配件表

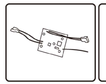
Propellers
风叶



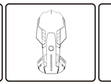
Launch board
发射板



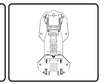
Motor
电机



Receiving board
接收板



Upper Casing
机身上盖



Lower Casing
机身下盖

Battery
电池

Protective Guard
护架

### Notes 注意：

If any of the above accessories are damaged during operation, you can contact the seller to purchase.

操作过程中，如有以上配件损坏，可自行联系卖家购买。



## PRE-FLIGHT PREPARATION
## 飞行前准备

### 1.FLIGHT ENVIRONMENT 选择飞行环境

Indoor: Spacious spaces away from barriers, crowds or pets are preferred.

在室内飞行：请选择附近无障碍物、人群和宠物的开阔空间飞行。

Outdoor: Sunny, windless and breezy weathers are preferred.

在室外飞行：请选择晴朗无风的天气或微风的天气飞行。

Please keep the drone in sight during the flight and keep it away from barriers, high-tension cables, trees and people.

飞行时请保持飞行器在视线范围之内，并远离障碍物、高压线、树木、人群等。

Do not fly in extreme environment, such as hotness,coldness, strong wind or heavy rain.

切勿在极端恶劣的环境下飞行，如过冷、过热、强风、暴雨等。

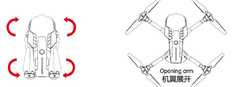


### 2.OPEN THE WINGS 打开机翼

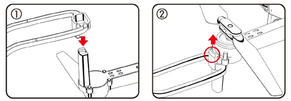
OPENING STEPS 打开机翼顺序：

① Open the front arm(close to camera)
先打开前机臂。（靠像头一侧）

② Open the back arm
Fold the back armf firstly and then the ront arm when folding.
再打开后机臂，折叠时顺序相反。



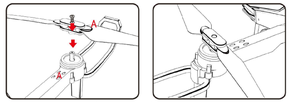

### 3.ASSEMBLING PROTECTIVE GUARD 防护架安装




Align the protective frame with the arm and install it (Figure 1), press it until it is in place, and then press the position (Figure 2) up to fasten the protective frame.

将保护架对准机臂安装（图1），按至到位，然后按（图2）位置往上按扣紧保护架。

### 4.ASSEMBLING PROPELLERS 风叶安装

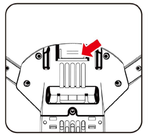


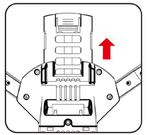

Align the blades with the motor shaft and install them (the arm identification must be consistent with the blade identification), Tighten the screw clockwise .

将风叶对准电机轴安装上去(机臂标识与风叶标识要一致)，顺时针拧紧螺丝。



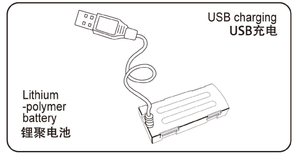
## 5.BATTERY CHARGING FOR DRONE
## 机身充电方法





A. Remove the lithium battery from the bottom of the drone. 按下箭头指示的位置，把电池箱往外拉出，取出电池。

### Battery Charging 充电




B. Connect USB charging cable with the charging interface of the lithium battery.
USB充电器连接电池与USB充电接口

### Notes 注意：

The LED light is on when charging, and the LED light is off when charging is complete, and the charging time is about 150 minutes

充电时LED灯亮，充电完成时LED灯灭，充电时间约为2.5小时左右。



## ⚠ BATTERY LNSTRUCTIONS 电池使用注意

- There is a certain risk when using lithium battery. It may cause fire, body injury or property loss. Users must be aware of the risks and take full responsibility of using battery improperly.
  使用锂电池有一定风险，可能对人和财产造成重大损失，请谨慎使用，自行承担所有相关责任。
- If battery leakage occurs, please avoid contacting your eyes or skin with electrolyte. Once it happens, please wash your eyes with clean water and seek medical care immediately.
  如果电池发生泄漏，请避免液体与皮肤和眼睛接触。若接触到皮肤，请立即以香皂和清水清洗。若接触到眼睛，请立即以大量冷水冲洗并立即就医。
- Please remove the plug immediately if you sense any peculiar smell, noise or smog.
  如果充电器发出可疑异味、噪音或者烟雾，请立即拔除电源。

### Battery Charging 充电

- Please use the charger from original factory to ensure your safe usage.
  请使用原厂配送的专用充电器充电，严禁使用破损或其他品牌充电器。
- Do not charge dilatant or outworn battery.
  请勿对膨胀、泄漏或破损的电池充电。
- Do not over charge battery. Please unplug the charger once fully charged.
  请勿对电池过度充电。当电池完全充满后，请拔出充电器。
- Do not charge the battery next to inflammables, such as carpet, timber floor or wood furniture or on the surface of electro-conductive objects.
  Please always keep an eye on the battery when charging.
  请勿在靠近易燃物（地毯、木地板、实木家具等）或导电的物体表面上充电。充电时请保持电池在视线范围内。
- Do not charge battery which not cool down yet.
  切勿在使用产品后电池尚热时立即充电。
- The charging temperature should be between 0℃to 40℃.
  电池充电的温度应该介于0℃到40℃之间。

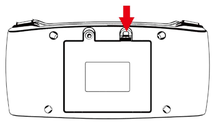
### Battery Recycling 回收

- Do not dispose the battery as daily rubbish. Please familiarize yourself with the local garbage disposal method and dispose it according to the special requirement.
  此设备由电子元件和电池构成。关于电子电器垃圾，请按照当地垃圾处理要求，进行特殊处理。



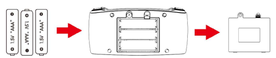
## LITHIUM BATTERY INSTRUCTION
## 电池安装及充电方法

① Open the remote control battery cover
遥控器电池盖的开启



② Remote control battery installation
遥控器电池的安装

AAA batteries
5号碱性电池



Open the battery cover and insert the 3 AAA batteries correctly according to the electrode instructions.(Batteries not included)
打开电池盖，依照电极指示正确放入3粒AAA电池。（电池需另购）

### Notes 注意：

1.Make sure the battery are loaded correctly according to the polarity indications on the battery compartment.
2.Please do not mix old and new batteries together.
3.Please do not mix different types of batteries together.

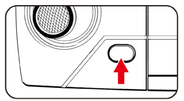
1.装入电池时必须认准电池正负极，且不能装反。
2.请勿混合使用新旧电池。
3.请勿混合使用不同类型的电池。



## SIGNAL CONNECTION OF TRANSMITTER AND RECEIVER 遥控器与无人机对频

After turning on the power switch of the fuselage, place the drone on a horizontal plane, and then turn on the remote control switch, the frequency will be automatically paired, two beeps will be heard, the remote controller indicator light and the drone LED light will be on, then the frequency pairing is completed.

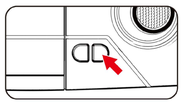
开启机身电源开关后将无人机放置在水平面，再打开遥控器开关，将自动对频，滴滴两声，遥控器指示灯和无人机LED灯长亮，则完成对频。



## TRANSMITTER CALIBRATION 遥控器校准

Apply transmitter calibration when the drone fails to take off vertically. Press the "One button calibration"buttonwhen the lights of drone are on and then start flashing and keep on again, the calibration is complete. the drone must be placed on ahorizontal surface in a steady state when the calibrations conducted

若无人机起飞不能垂直上升，可对无人机校正，按下“一键校正”键，此时无人机指示灯快速闪烁，待指示灯常亮，校正完成。在执行校正命令时，必须在与水平线平行的平稳状态下执行，否则会影响校正效果。



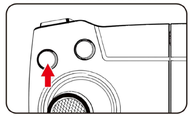


## START YOUR FLIGHT 开始飞行

### 1. One-key Ascend and One-key Landing
### 一键起飞与一键降落

Press the "One-key Ascend" button, the drone blades rotate and automatically fly to a height of 1.5 meters. Press the button again to land the drone with one button

按下“一键起飞”按键，无人机风叶转动，自动飞到1.5米的高度。再次按下按键无人机一键降落。

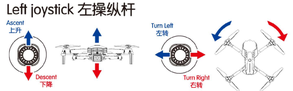


### 2. Basic Flight
### 基本飞行

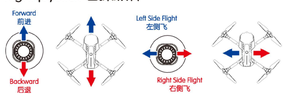
Use the left joystick to control the flight altitude and turn left/right, and the right joystick to control the forward, backward, left and right sidde flight directions.

左操纵杆控制飞行高度与左右转方向，右操纵杆控制前进、后退以及左右侧飞方向。

### Left joystick 左操纵杆




### Right joystick 右操纵杆






## Flips & Rolls
## 翻滚

After the drone flies to a height of more than 3 meters, click the roll button and move the right joystick (rudder) to the left or right to realize the roll action in this direction.

无人机飞到3米以上高度后，点击翻滚键并将右操纵杆(方向舵)向左方向或右方向移动，可实现往此方向的翻滚动作。

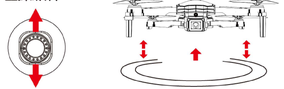
### Right joystick 右操纵杆

## Hover
## 悬停

When you release the left joystick (throttle) after the ascent/descent action, the dronewill hover at a certain height.

用左操纵杆让无人机上升后，松开左操纵杆，无人机仍会悬停在松开操纵杆时的高度。

### Left joystick
### 左操纵杆

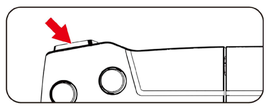




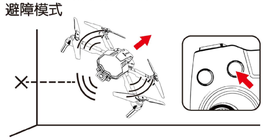
## High/low speed and Light control
## 快慢档

Lightly press the button to control the speed of the drone, a "di" sound is a slow speed, and then tap the button again, a "di" and a "di" sound twice as a fast speed, and then the cycle repeats. The default speed of the drone is low speed.

轻按按键对无人机进行速度控制，“滴”一声为慢档，再次轻按按键，“滴”“滴”两声为快档，之后循环往复。无人机默认速度为低速。



## Obstacle Avoidance Mode
## 避障模式



Press the button to turn on the obstacle avoidance mode, and press the button again to turn off the obstacle avoidance mode. Three-sided obstacle avoidance, according to the direction of the remote control, it will stop when encountering an obstacle.

按下按键开启避障模式，再按一下关闭避障模式。三面避障，根据遥控的方向，遇到障碍物就会停止。

It is recommended to turn on the obstacle avoidance function in an indoor flight environment with a length and width of 6 x 6 meters or more.When the UAV turns on the obstacle avoidance mode, the speed will slow down and the fast gear cannot be turned on. Therefore, it is recommended to fly indoors when the obstacle avoidance mode is turned on.

建议在室内飞行环境长宽6米x6米以上，开启避障功能。当无人机开启避障模式时，速度会变慢，且不能开启快速档，所以开启避障模式时建议在室内飞行。



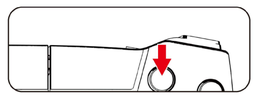
## Headless Mode and One key to return home
## 无头模式

The flight direction of drone is subjected to the direction of remote control.

1.When drone adjust the frequency, the drone is default as common mode. Then the indication light of drone is normally on. Short press the headless function key of remote control, the remote control beeps once and enters headless state. When you press the headless function key again, you listen to a long beep sound and the drone exits the headless mode.

2.In the headless state, operator doesn't need to identify the direction of nose, but control the drone according to the operating lever of remote control.

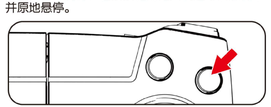
当无人机对完频后，无人机默认为普通模式，此时无人机的指示灯为长亮状态，短按遥控器上无头功能键后，遥控器发出“滴”一声表示进入无关状态，再按下无头功能键后听到“滴”长声响为退出无头状态。在无头状态下，操控者无需去辨认无人机的机头方向，只需根据遥控器的操作杆方向来控制飞行器。



## emergency stop
## 紧急停止

In case of emergency, tap the button to brake the drone and hover in place.

遇到紧急情况时，轻按按键对无人机进行紧急刹车并原地悬停。





## FINE-TUNING FUNCTION
## 微调功能

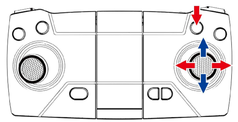
When the aircraft spins in the air or tilts in different directions, you can use fine-tuning to correct the action. Press the fine-tuning button and hear a beep, then move the joystick in the opposite direction to adjust and calibrate until the aircraft does not deviate.

If there is no operation for 5-6 seconds after entering the fine-tuning, the fine-tuning function will automatically exit.

当飞行器在空中打转或倾向不同方向时，可使用微调修正动作。

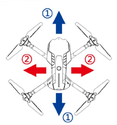
按下微调按键听到“滴”一声后，然后反方向拨动操作杆进行调节校准，直至飞行器不会偏飞为止。

进入微调后如果5-6秒没有进行操作，微调功能就会自动退出。



① Forward/Backward Fine-tuning
① 前进/后退微调

② Left/Right Side Fly Fine-tuning
② 左/右侧飞微调



### Notes 注意：

When the drone is within 30cm from the ground, it will be affected by the blade vortex made by itself and become unstable. This is "ground effect". The lower the drone is, the greater the effect will be.

“地效反应”指当无人机飞行越低时，地面反应影响则越大。当无人机在距离地面30 cm 以内的位置，无人机会受到自身桨叶涡流的影响而变得不稳定。



## FAQ
## 遇到问题不用慌

| PROBLEMS 问题 | CAUSES 原因 | SOLUTIONS 处理方法 |
|---|---|---|
| Control failure 遥控器失灵 | Not connect with the quadcopter battery. 无人机电池没连接 | Connect the quadcopter battery in right way. 把无人机电池按正确方向连接 |
| | Too strong wind force. 风力太大 | Do not fly in windy days. The performance and the control of the quadcopter will beaffected by the strong winds. 切勿在有风的情况下飞行，有风会对无人机造成局限，或会妨碍你的控制飞行 |
| Fail to ascend 无人机不能升高 | The rotation speed of main blades is too slow. 旋翼转动速度太慢 | Push up the throttle joystick. 动力操纵杆向上推 |
| | The battery of the quadrocopter is not fully charged. 无人机未完成充电 | Please full charge the quadcopter. 为无人机完全充电 |
| Landing too soom 无人机很快跌落 | The throttle stick is pulled down too fast. 过快将动力操纵杆回拉 | Pull down the throttle stick slowly to perform a smooth landing. 慢慢的回拉动力操纵杆让无人机慢慢着陆 |
| Out of control 失控 | Beyond the effective controlling distance. 超出有效遥控距离 | Ensure operation within the controllable distance: remote control of 100 meters 确保遥控距离在100m内。 |

# FCC Warning

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 used in portable exposure condition without restriction.