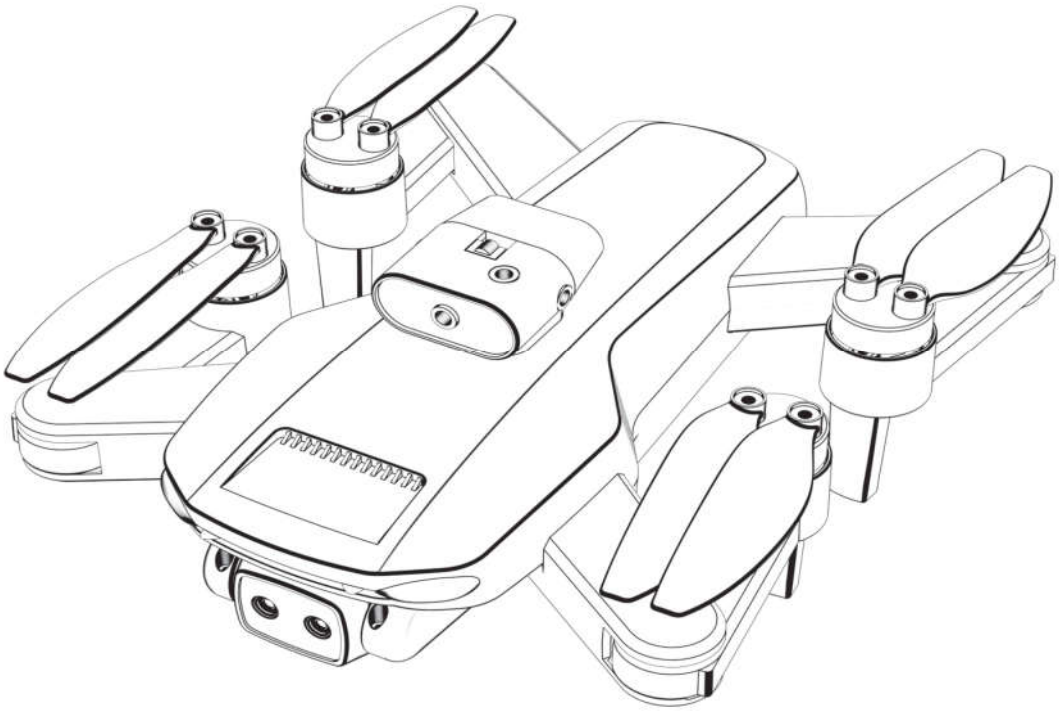
SG105 MAX

用户手册



可折叠　GPS返航　兴趣点　航点飞行

无刷动力　舵机云台　光流定位　5G高清图传

重要声明和安全指引

欢迎您选购本公司产品，为了让您更容易、方便地使用这台无人机，请您详细阅读本说明书之后再操作，同时请您妥善保存此说明书，作为以后调整及维修的参考。

重要声明

- 该产品不是玩具，而是将机械、电子、空气力学、高频发射等专业知识整合为一体的精密设备，需要正确组装和调试才可避免事故发生。该产品持有人必须使用安全的方式来操作控制；操作不当，可能引起严重的人身伤害或财产损失。
- 本产品适用于有操作模型无人机经验、年龄不小于14周岁的人群。
- 如遇使用、操作、维修等问题，请与当地经销商或本公司相关人员联系。我司和销售商对因使用或操作不当而引起的任何损失和损坏以及人体的伤害不负任何责任。
- 产品含有小零件，请将其置于小孩不能触及的地方，以免发生误食或窒息危险。

安全注意事项

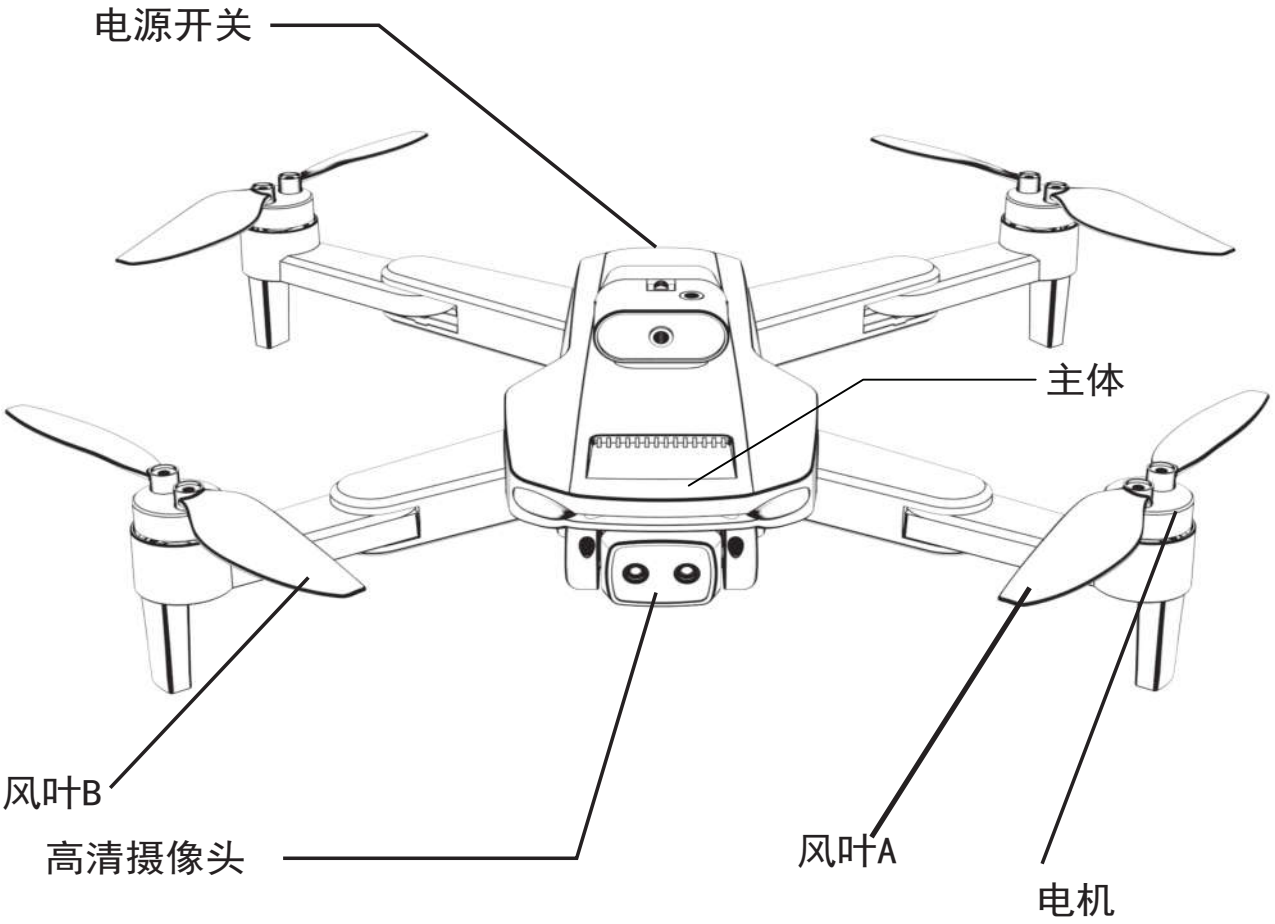
遥控模型无人机是具有危险商品，飞行时务必远离人群。人为组装不当或机体损坏，电子控制不良，以及操作不熟悉，都有可能导致无人机损坏或人身伤害等不可预测的意外。请操作飞行者务必注意飞行安全，必需了解自身疏忽所造成意外的责任。

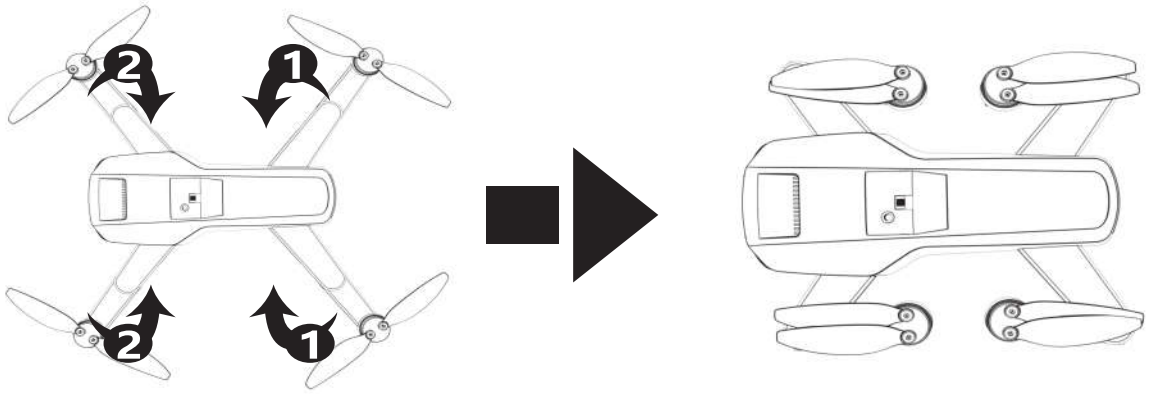
- 远离障碍物及人群
  遥控无人机飞行时具有不确定的飞行速度和状态，存在潜在的危险性。飞行时必须远离人群、高层建筑、高压电线等，同时避免在风雨、雷电等恶劣天气下飞行。调试安装无人机必须严格按照操作说明书上操纵，注意无人机飞行时与使用者或其他人保持1-2米的距离，避免无人机飞行、降落时撞向人的头部、脸部和身体等，引起伤害。
- 远离潮湿环境
  无人机内部是由许多精密的电子元件和机械零件组成，所以，必须防止无人机潮湿或水气进入机体，以免机械，电子元件故障而引发意外。维护保养时请用干净抹布擦拭表面污渍。
- 避免独自操控
  遥控无人机操控技巧在学习初期有着一定的难度，要尽量避免独自操作飞行，需有经验的人士指导。
- 正当使用本产品
  请使用本公司原装零件进行改装或者维修，以确保飞行的安全。请在产品功能允许的范围内进行操作和使用，且不得用于安全法令之外的其他非法用途。
- 安全操作
  1. 请根据自身的状态和飞行技能，操作遥控无人机。疲劳、精神不佳或操作不当，将会增加意外风险的概率。
  2. 不要靠近耳朵使用！误用可能导致听力损坏。
- 远离高速旋转部件
  当无人机旋翼在高速旋转时，请飞行员、周围人群和物体远离旋转部件，以免造成危险及损坏。
- 远离热源
  遥控无人机是由金属、纤维、塑料、电子元件等材料组成，因此要尽量远离热源、防止日晒，避免因高温引起变形，甚至损坏。
- 环保要求
  随意丢弃该产品，可能会对环境造成影响，请按当地法律法规要求妥善回收处理。

为保证航空无线电台电磁环境的要求，禁止在以机场跑道中心两侧各10公里、跑道两端各20公里范围以及民航航路、航线使用各类模型、无人机。在国家有关部门发布的禁飞区域，停止使用各类模型、无人机。

1. 此款飞行器你有责任确保不会对他人的人身及财产造成伤害。
2. 为保证航空无线电台磁环境的要求。在国家有关部门发布无线电管制命令期间、区域内、应该按要求停止使用模型遥控器。

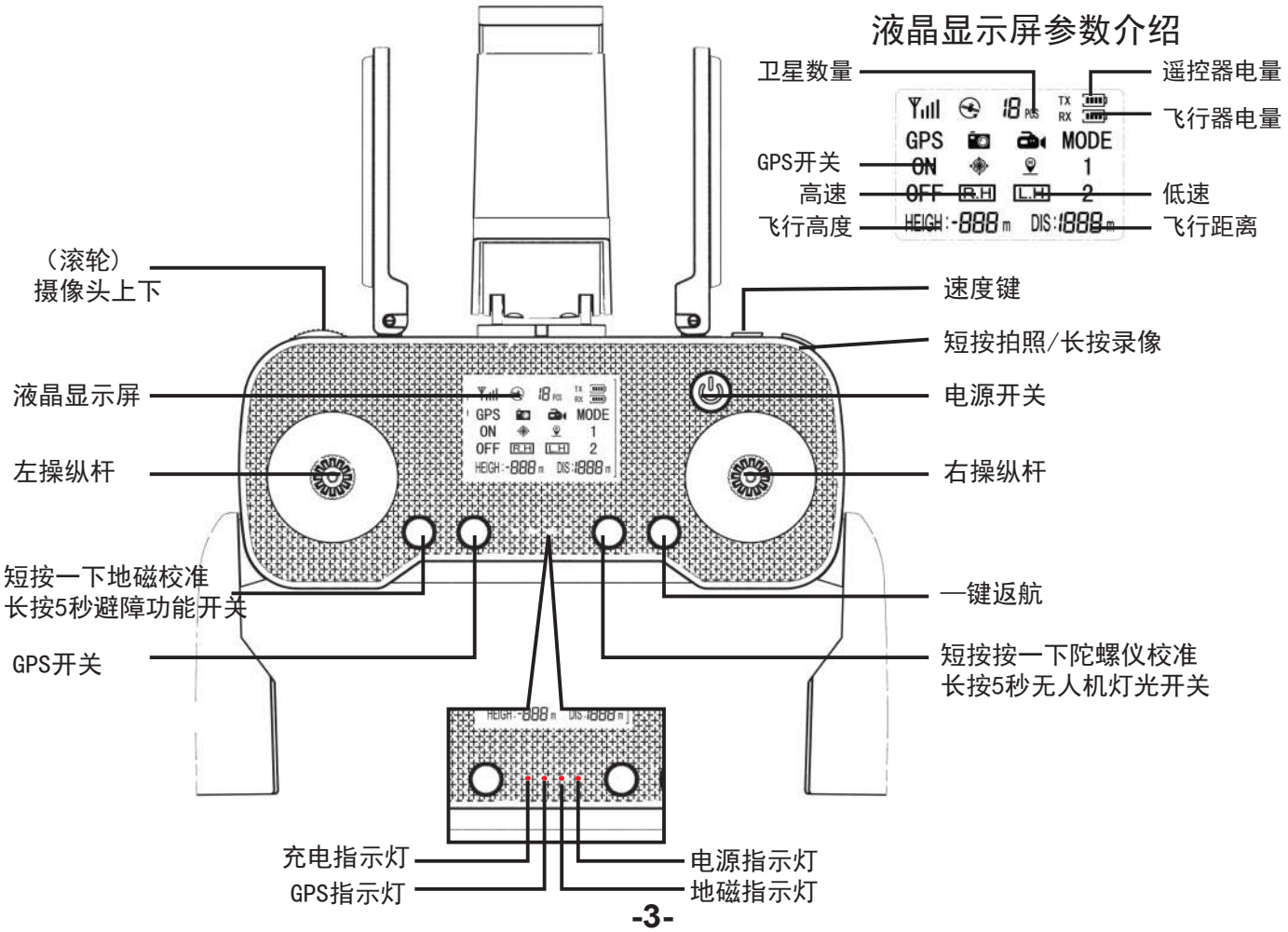
飞行器部件名称





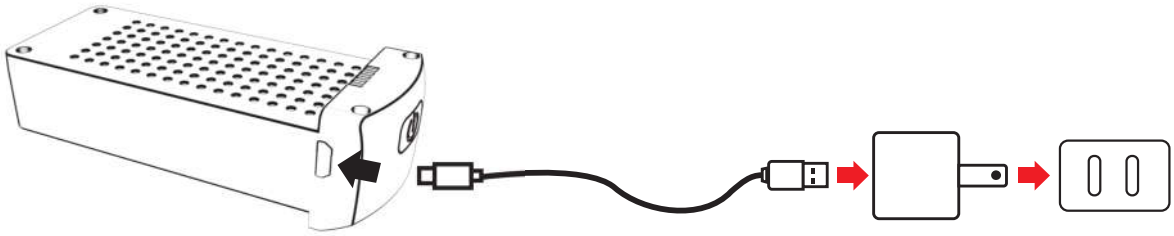
叶片更换事宜
1. 将要更换的风叶必须对应机上相对的位置更换。风叶A需安装在A的位置上，风叶B需安装在B的位置上，如更换风叶错误将无法操控。
2. 飞行时风叶A往顺时针方向转动，风叶B往逆时针方向转动。

遥控器按键功能介绍



为飞行器电池充电

取出USB充电线，将电池接口跟充电头连接USB端



无人机电池　　USB充电线　　适配器
需另购

温馨提示：● 请按正确方式插入插头。　● 建议使用5V 1-2A适配器进行充电。

为遥控器充电

遥控器为内置电池，充电时红灯亮，充电完成后红灯熄灭，充电时间约40分钟。

USB充电线　　适配器
需另购

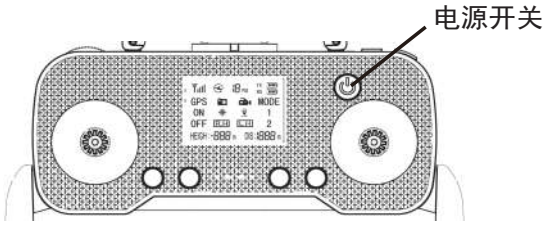
温馨提示：● 请按正确方式插入插头。　● 建议使用5V 1-2A适配器进行充电。

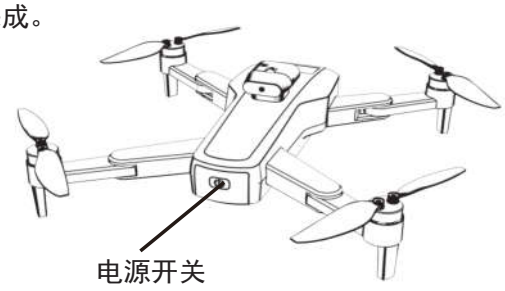
注意事项

● 给充电电池充电时，不要单独给儿童使用，必须在成人监护进行，充电时必须远离易燃物，充电时监护人请不要离开航模到监视范围外。
● 请不要短路、挤压电池，以免发生爆炸。
● 电源接线端不应从模型中取出，接线端不应短路；切勿将电池短路、分解或投入火中；切勿将电池放在高温、受热的地方（如火中或电热装置附近）。
● 模型只能使用推荐的充电器，定期检查充电器的电线、插头、外壳和其他部件是否损坏，发现损坏时应停止使用，直至修复完好。
● 充电器不是玩具；充电器只能在室内使用。
● 飞行后的电池需充电再保存，如不使用，建议每3个月内至少对电池充电一次，以免电池过度放电而永久性的损坏电池。

飞行器对码

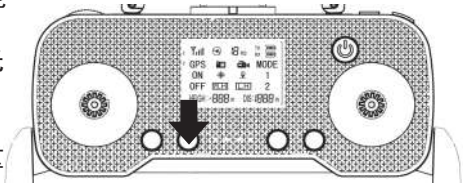
1. 将飞行器电池按照正确方向装入飞行器电池槽，将飞行器放置在水平地面，先短按电池开关，再长按电池开关5秒，飞行器灯光慢闪表示开机成功。
2. 打开遥控器电源，听到滴滴响且遥控器电源指示灯常亮对码完成。





飞行模式切换

注意:产品开机默认GPS模式（MODE2）.在没有达到8颗卫星的情况下无人机只能解锁电机但不能起飞，如要起飞，需在卫星定位完成前进行光流模式的切换。长按GPS健5秒《切换方法如右图〉，切换成功后遥控器会发出滴一声，此时无人机将没有一切与GPS相关的功能《一健返航.低电返航.失控返航等》需注意飞行高度距离，避免无人机丢失!
注*GPS定位完毕后无法切换为光流模式，如要切换需把无人机和遥控器关机重新启动。

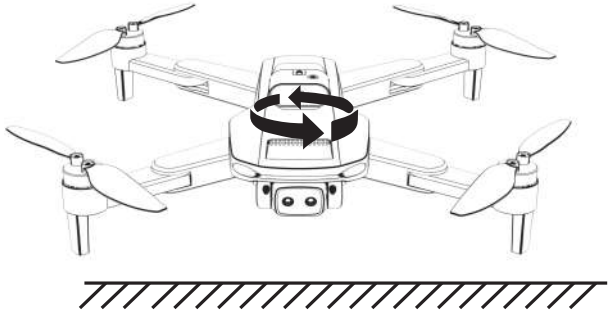


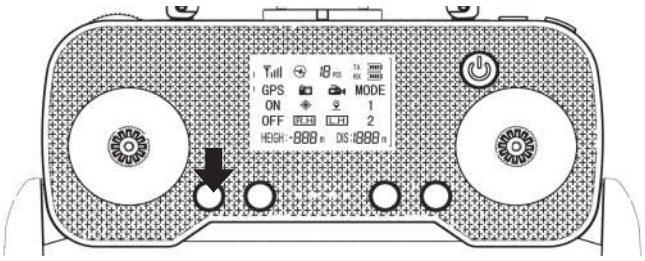
指南针校准

指南针校准分两个步骤：

第一步：

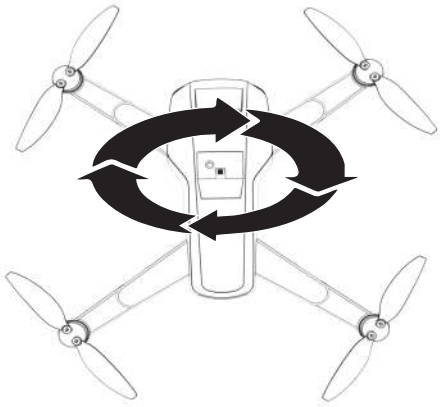
飞行器成功对码后放平面上，按下地磁校准按键将飞行器按下图指示，水平旋转约3圈，遥控器滴一声直到飞行器后指示灯常亮。





第二步：

将飞行器机头向上“竖”起来，按下图指示，旋转机身约3圈遥控器滴一声直到飞行器前指示灯常亮，指南针校准完成。



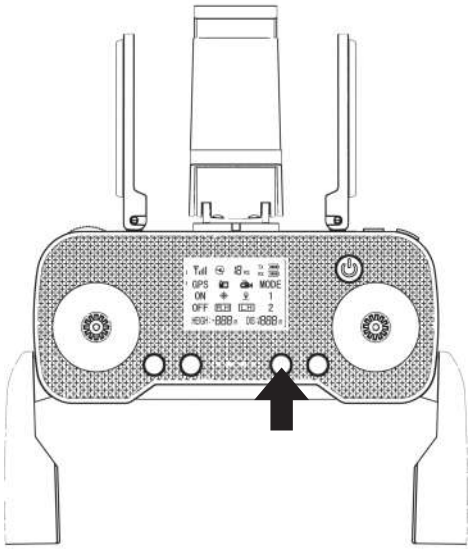
注意：若无人机指南针错乱，没有校准的情况下解锁无人机，无人机将启用保护程序无法起飞

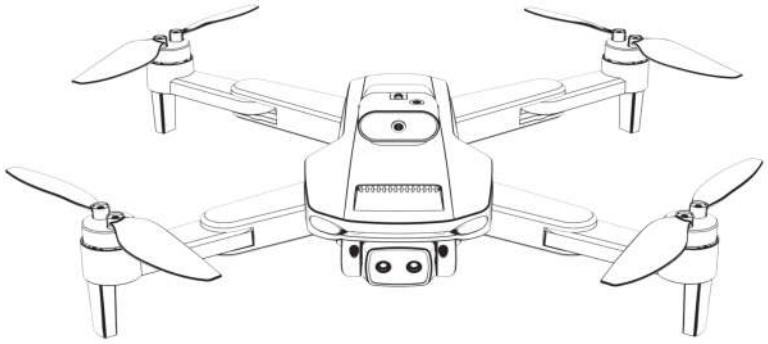
注意：校准时距离地面1米以上为最佳距离

- 请勿在强磁场区域校准，如磁矿，停车场，带有地下钢筋的建筑区域等。
- 校准时，请勿随身携带铁磁物质，如钥匙，手机等。
- 请勿在大块金属附近校准。

陀螺仪校准

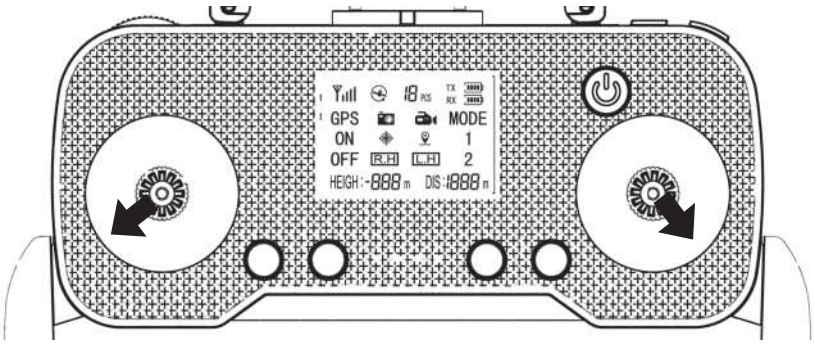
对码成功后，将飞行器放在水平地面上，按下图指示短按一下遥控器发出”滴”一声，此时前后指示灯快速闪烁，陀螺仪进入校准状态，指示灯由快闪变为常亮时，校准完毕。





- 进行陀螺仪校准时，务必将飞行器放在水平面上，否则会影响飞行。

搜星：指南针校准完成后，飞行器平放于水平面上，飞行器将自动搜星飞行器后指示灯由慢闪变成常亮遥控器发出滴一声，遥控器显示MODE2，搜星完成，遥控器左摇杆推至左下角45°，同时右摇杆推至右下角45°解锁起飞.



温馨提示：请确保起飞环境为空旷场合，起飞前卫星信号大于7颗星。
GPS模式在没有完成GPS定位前，无人机自动启用保护程序将无法起飞。

基础飞行

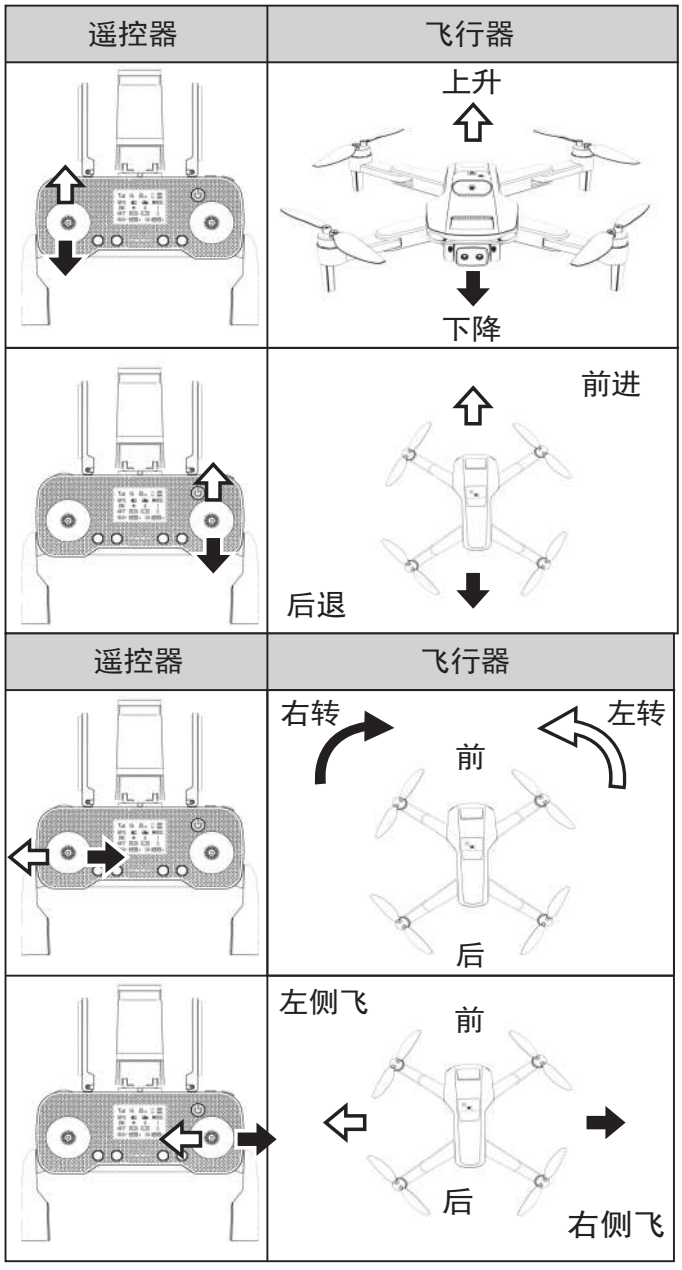
基础飞行步骤

1. 遥控器与飞行器对码，飞行器完成初始化。
2. 指南针校准。
3. 手机Wi-fi链接飞机，打开手机APP。
4. 飞行器陀螺仪检测完后，等待收星，一般60-80秒（7颗以上），直到飞行器指示灯常亮。
5. 将遥控器左摇杆推至左下角45°，同时右摇杆推至右下角45°，解锁后飞行器启动状态。

飞行前检查

1. 遥控器、飞行器电池是否电量充足。
2. 风叶是否正确安装。
3. 指南针是否校正成功。
4. 收星是否正常（7颗星以上）。
5. 开机解锁后电机是否正常启动。

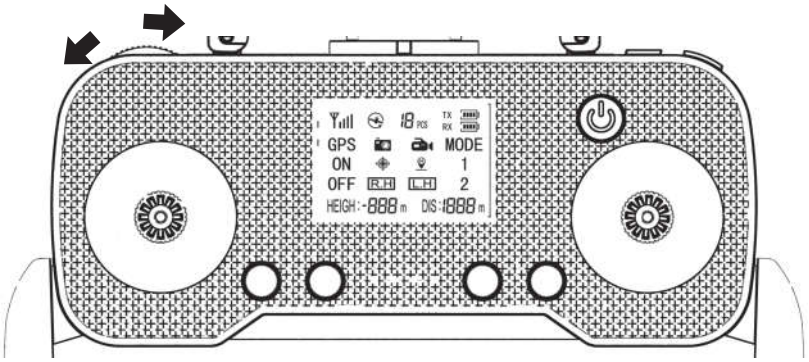
飞行控制方法



飞行模式　　需要在室内飞行时，需按下GPS按键，关闭GPS

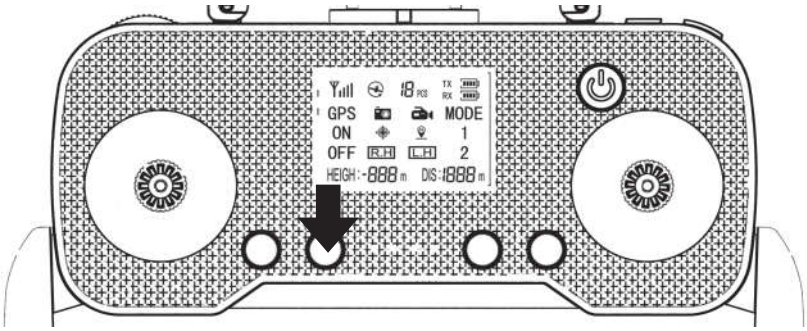
舵机功能

飞行时，可连转动滚轮，调整摄像头角度。



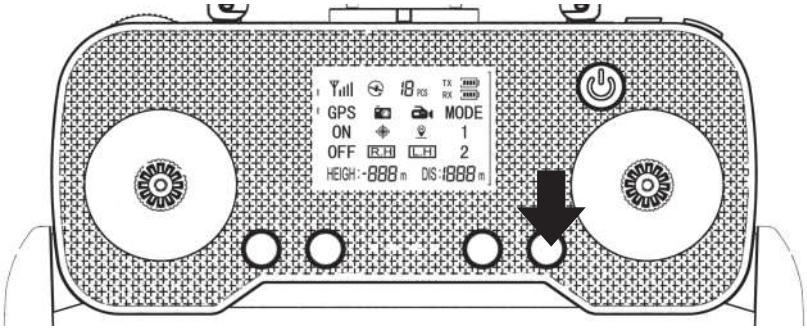
GPS开关功能

室外空旷地方建议使用GPS模式，校准地磁搜星，可远距离飞行操作。室内无法搜星状态，关闭GPS开关，可在室内空旷处飞行。（注：关闭GPS功能后，飞行没有低电返航，一键返航等一系列GPS功能，使用时请注意飞行距离和高度）



一键返航功能

室外开启GPS功能并搜星校准起飞后，飞行较远或者无人机低电状态，按一键返航按键，无人机会返航回初始起飞的位置。



返航

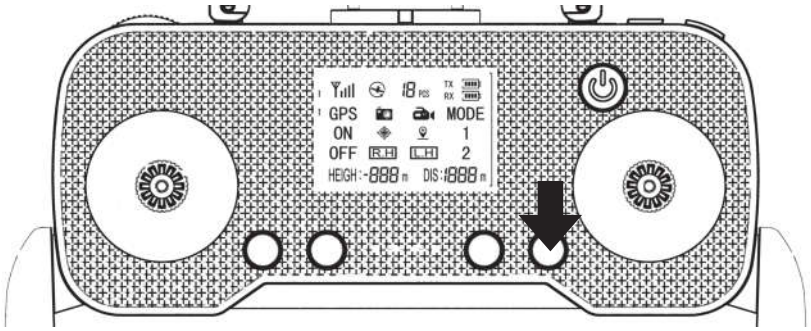
飞行器具有返航功能，若起飞前成功记录了返航点，则遥控器与飞行器之间失去通信讯号或按返航键时，
飞行器将自动返回返航点并降落，以防发生意外。
飞行器有三种不同的返航方式，分别为：
1. 一键返航
2. 失控返航
3. 低电量返航。

返航点：

起飞或飞行过程中，GPS首次收到7颗星以上时，将记录为飞行器当前位置为返航点。

一键返航

当GPS信号良好（卫星颗数大于7），可通过遥控器下图按键启动飞行器返航,其返航过程与失控返航一致，区别在于飞行器返航降落时，用户可通过摇杆控制飞行器以躲避障碍物，通过“ ”按键可退出返航，用户可重新获得控制权。



失控返航

GPS信号良好(GPS卫星颗数大于7)，指南针工作正常,且飞行器成功记录返航点后，如遥控信号持续中断超过6秒，飞控系统将接管飞行器控制权，控制飞行器飞回到记录的返航点。如果在飞行过程中，遥控信号恢复，返航过程仍将继续，但用户可通过遥控器返航键取消返航，夺回飞行器控制权。

⚠ 返航注意事项:

- 自动返航过程中，飞行器无法躲避障碍物。
- 当GPS信号欠佳或GPS不工作时，无法返航。
- 如果飞行器没有收到卫星，同时遥控器信号又持续中断超过6秒，
  飞行器将不能返航，为慢慢下降，直到着陆上锁。

低电返航

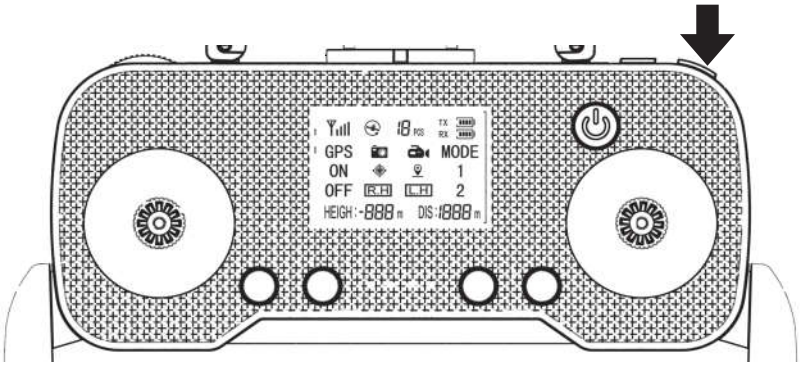
飞行器低电压后指示灯会慢闪，此时飞行器会自动返回起飞点20米附近（低电后飞行器返回起飞点附近，飞行器的高度和距离会被限制在20米内）

● 飞行器电压低于安全值将自动降落至返航点

⚠ 温馨提示：飞行器处于低电返航状态，遥控器无法取消返航。

拍照/录像

飞行过程中可以使用遥控器上的拍照或录像来记录飞行中航拍到的图像，短按遥控器摄像按钮，摄像机拍摄照片一张，长按遥控器摄像按钮，摄像机开始录像，再次长按此按键退出录像模式.



常见故障解决

序号	问题	解决方法
1	模式1无人机电机不转动，飞行器无法起飞，灯闪烁	没有关闭GPS功能,无人机启用保护程序长按GPS开关5秒，关闭GPS功能
2	模式1关闭GPS功能后．无人机电机能转动，无人机无法起飞。灯一快一慢闪烁	重启后重新校正地磁
3	模式1起飞后，无人机一直闪不能悬停，飘来飘去	地面太光滑，环境太暗会导致光流镜头定不住,请拿到光线好，地面没有反光的地方飞行。
4	模式2起飞后，无人机一直闪不能悬停，飘来飘去，遥控器在棘式1跟模式2一直切换	GPS定位不好，干扰太大。请拿到开阔，无遮拦，无高压电线地方
5	模式2无人机电机能转动,飞行器无法起飞，灯一快一慢闪烁	重启后重新校正地磁
6	无人机震动得很厉害	风叶变形或已损坏,需跟换风叶

GPS 功能工作原理及使用注意事项

无人机与遥控器对频成功后，无人机搭载的GPS模块将与卫星连接，卫星精度到达定位标准后，遥控器显示MODE 2，即完成GPS定位，无人机记住起飞点。
当在GPS模式下起飞时，如遇到断信号一般分以下两种情况：
1、无人机与遥控器断信号：当超距离或受到信号干扰无人机与遥控信号中断超过6秒，无人机GPS信号正常情况下，无人机启用断信号返航回到起飞点。
2、无人机GPS信号中断：当遇到较大遮挡物、信号干扰等情况将可能直接导致无人机无法接收卫星信号，无人机GPS信号中断，无人机无法定位，无法通过断信号返航或一键返航返回起飞点。

温度及环境对无人机锂电池使用的影响：

1、温度对锂电池有一定的影响：电池最佳使用温度是20°C~30°C,低温环境会降低锂离子的活性，使电池放电能力变弱，使用时间变短。
2、飞行环境对续航时间的影响，无人机在飞行时遇到较大的风或逆风飞行时，由于阻力较大，导致耗电快，会缩短续航时间。
所以户外飞行前请注意观察天气及附近环境，若气温较低风力较大或逆风飞行时注意不要飞高飞远，在电池电量充足的情况下提前返航，避免中途因电量不足无法完成返航。

安全准则

为避免意外情况发生无人机飞行时应遵守以下安全准则：


获取良好的GPS信号后再起飞


全程保持双手控制飞行器


检查配件和机身外观完好，确保设备电量充足


在安全高度飞行，避开峡谷


在安全高度飞行，避开高楼等高低落差大的建筑物

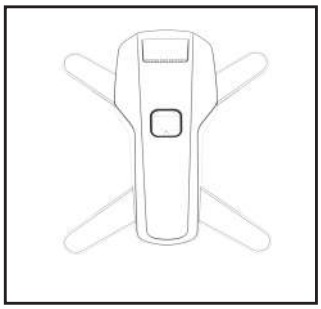

避开信号塔电线塔等信号干扰大的地方


在空旷和视距范围内飞行出于安全原因，切勿在人，动物或行驶中的车辆上方飞行

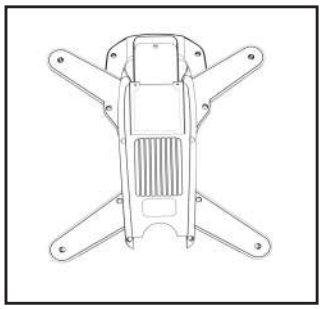

保持清醒，请勿酒后执行飞行

遵守当地法律，飞行前查询相关法律

配件清单



上盖



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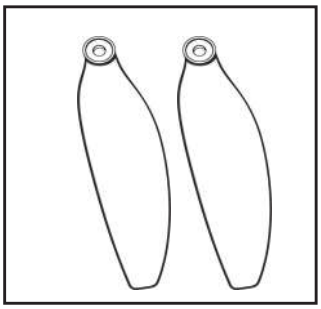
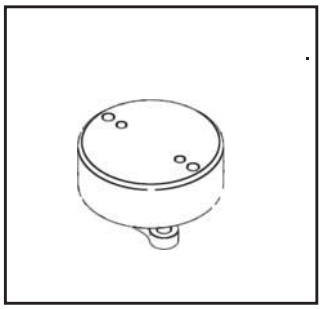
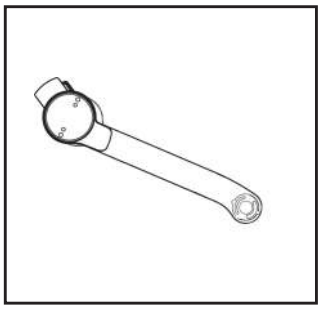


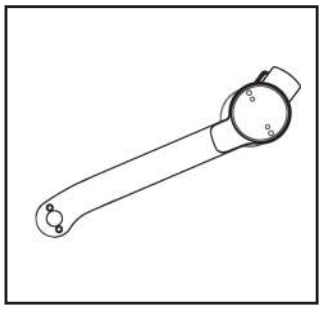
风叶



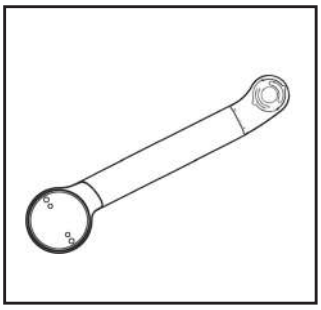
电机



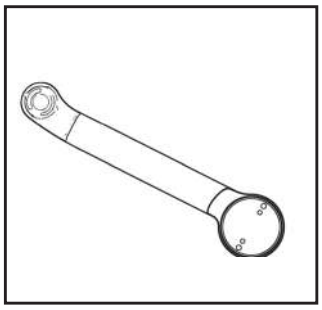
机臂 前A



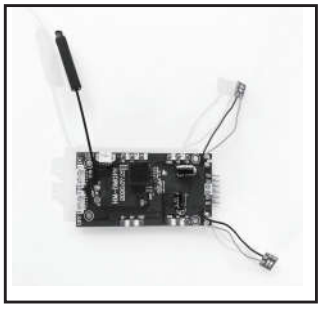
机臂 前B



机臂 后A

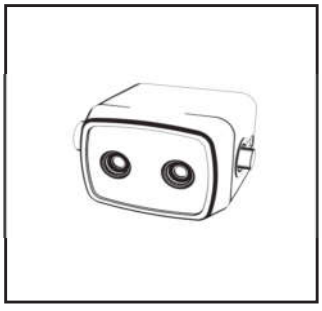


机臂 后B

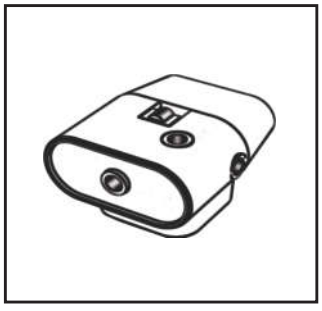


电路板

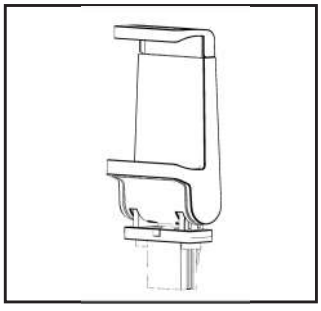
电池



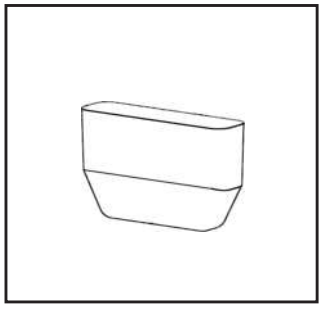
摄像头



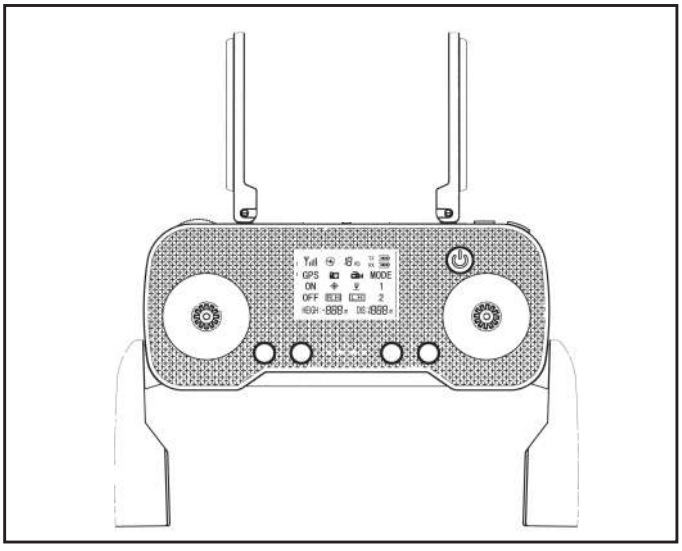
避障头(选配)



手机架



脚垫

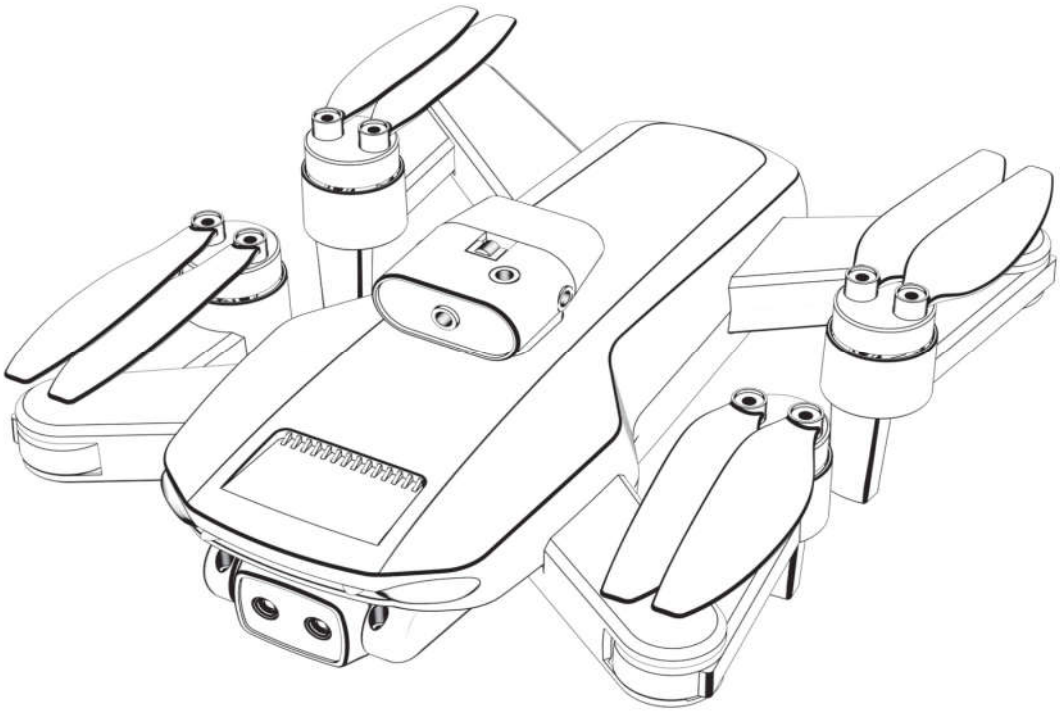


遥控器

USB

SG105MAX

User Manual



Folding Design

GPS return

Points of Interest

waypoint flight

Brushless Motor

Servo gimbal

Optical flow localization

HD image transmission

Important Notices and Safety Guidelines

You are welcome to purchase our products. In order to make it easier and more convenient for you to use this drone, please read this manual carefully before operating it. At the same time, please keep this manual properly for future adjustment and maintenance reference.

Important Notice

- This product is not a toy, but a precision device that integrates mechanical, electronic, aerodynamic, high-frequency emission and other professional knowledge. It needs to be assembled and adjusted correctly to avoid accidents. The owner of this product must operate the controls in a safe manner; improper operation may cause serious personal injury or property damage.
- This product is suitable for people who have experience in operating model drones and who are not less than 14 years old.
- In case of use, operation, maintenance and other problems, please contact the local dealer or the relevant personnel of our company. Our company and the seller are not responsible for any loss and damage and personal injury caused by improper use or operation.
- The product contains small parts, please keep them out of the reach of children to avoid the danger of accidental ingestion or suffocation.

Safety Precautions

Remote-controlled model drones are dangerous goods, so be sure to keep them away from crowds when flying. Improper assembly or damage to the body, poor electronic control, and unfamiliar operation may lead to unpredictable accidents such as damage to the drone or personal injury. Please pay attention to flight safety and understand the responsibility for accidents caused by your own negligence.

● Keep away from obstacles and crowds

Remote control drones have uncertain flight speed and status when flying, which is potentially dangerous. When flying, you must stay away from crowds, high-rise buildings, high-voltage power lines, etc., and avoid flying in bad weather such as wind, rain, thunder and lightning. The debugging and installation of the drone must be operated in strict accordance with the operating instructions. Pay attention to keeping a distance of 1-2 meters from the user or other people when the drone is flying, so as to avoid hitting the head or face of the person when the drone is flying or landing. and the body, etc., causing injury.

● Keep away from humid environment

The interior of the drone is composed of many sophisticated electronic components and mechanical parts. Therefore, it is necessary to prevent the drone from getting wet or moisture into the body, so as to avoid accidents caused by mechanical and electronic components failure. Please use a clean rag to wipe the surface stains during maintenance.

● Avoid controlling alone

Remote control drone control skills are difficult in the early stage of learning. To avoid operating and flying alone, you need the guidance of experienced people.

● Use this product properly

Please use the original parts of the company for modification or maintenance to ensure the safety of flight. Please operate and use it within the scope permitted by the function of the product, and shall not be used for other illegal purposes other than safety laws.

●Safe operation

1. Please operate the remote control drone according to your own state and flying skills. Fatigue, poor energy or improper operation will increase the probability of accident risk.
2. Do not use it near the ear! Misuse can cause hearing damage.

● Keep away from high-speed rotating parts

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

● Keep away from heat sources

Remote control drones are made of metal, fiber, plastic, electronic components and other materials, so try to stay away from heat sources, prevent sun exposure, and avoid deformation or even damage caused by high temperature.

● Environmental requirements

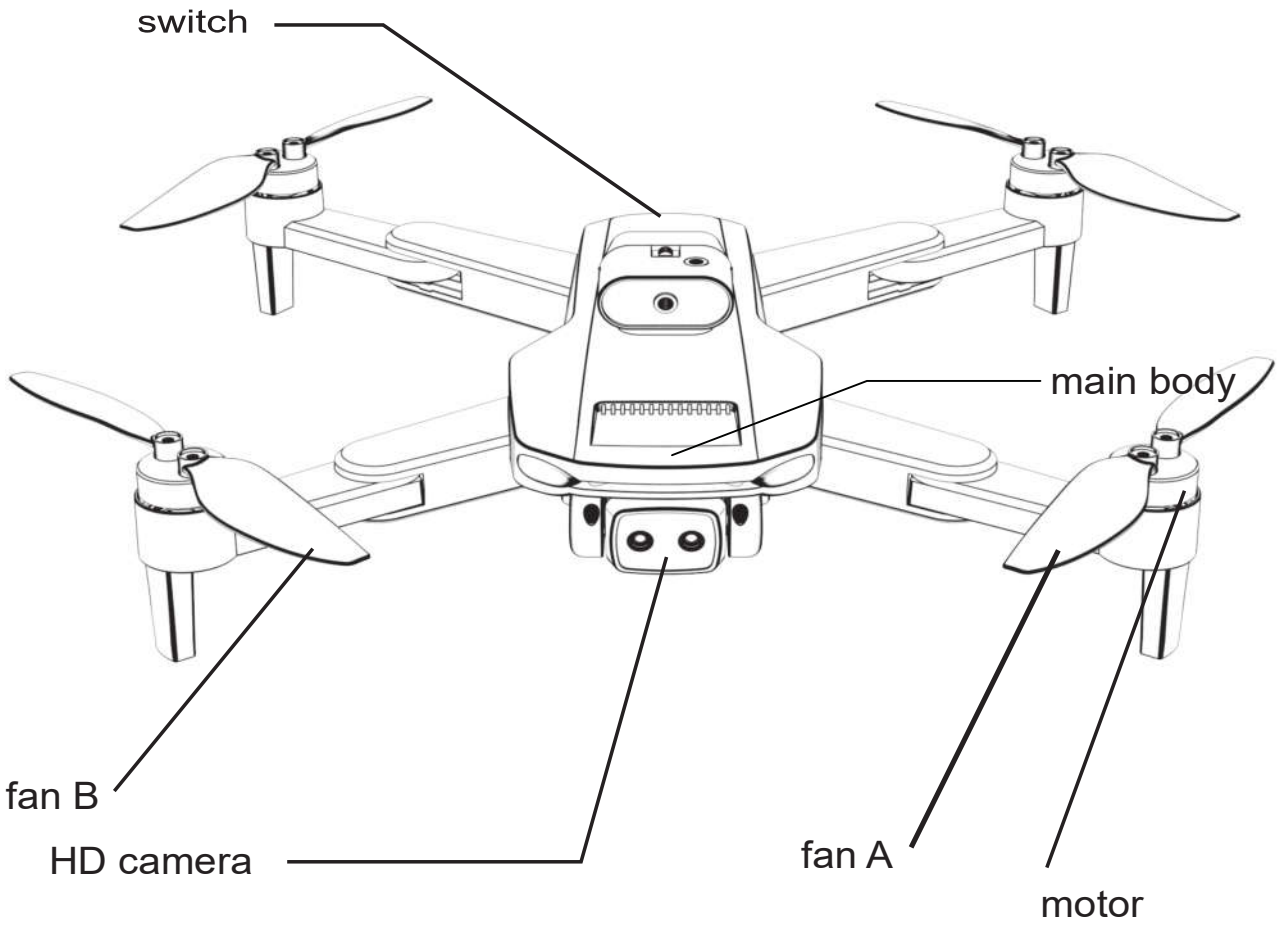
Discarding this product at will may have an impact on the environment, please properly recycle it according to local laws and regulations.

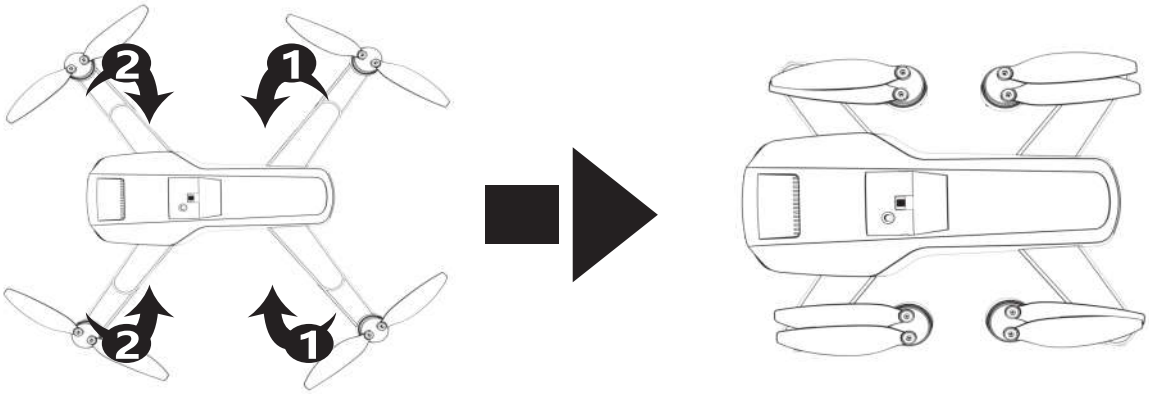
In order to ensure the electromagnetic environment of aeronautical radio stations, it is prohibited to use various models and drones on both sides of the airport runway center, 10 kilometers on each side, 20 kilometers on each end of the runway, and civil aviation routes and routes. In the no-fly areas issued by the relevant state departments, stop using all kinds of models and drones.

1. You are responsible for this aircraft to ensure that it will not cause harm to the personal and property of others.

2. In order to ensure the requirements of the magnetic environment of the aeronautical radio station. During the period of the radio control order issued by the relevant state departments, the use of the model remote control should be stopped as required in the area.

aircraft part name

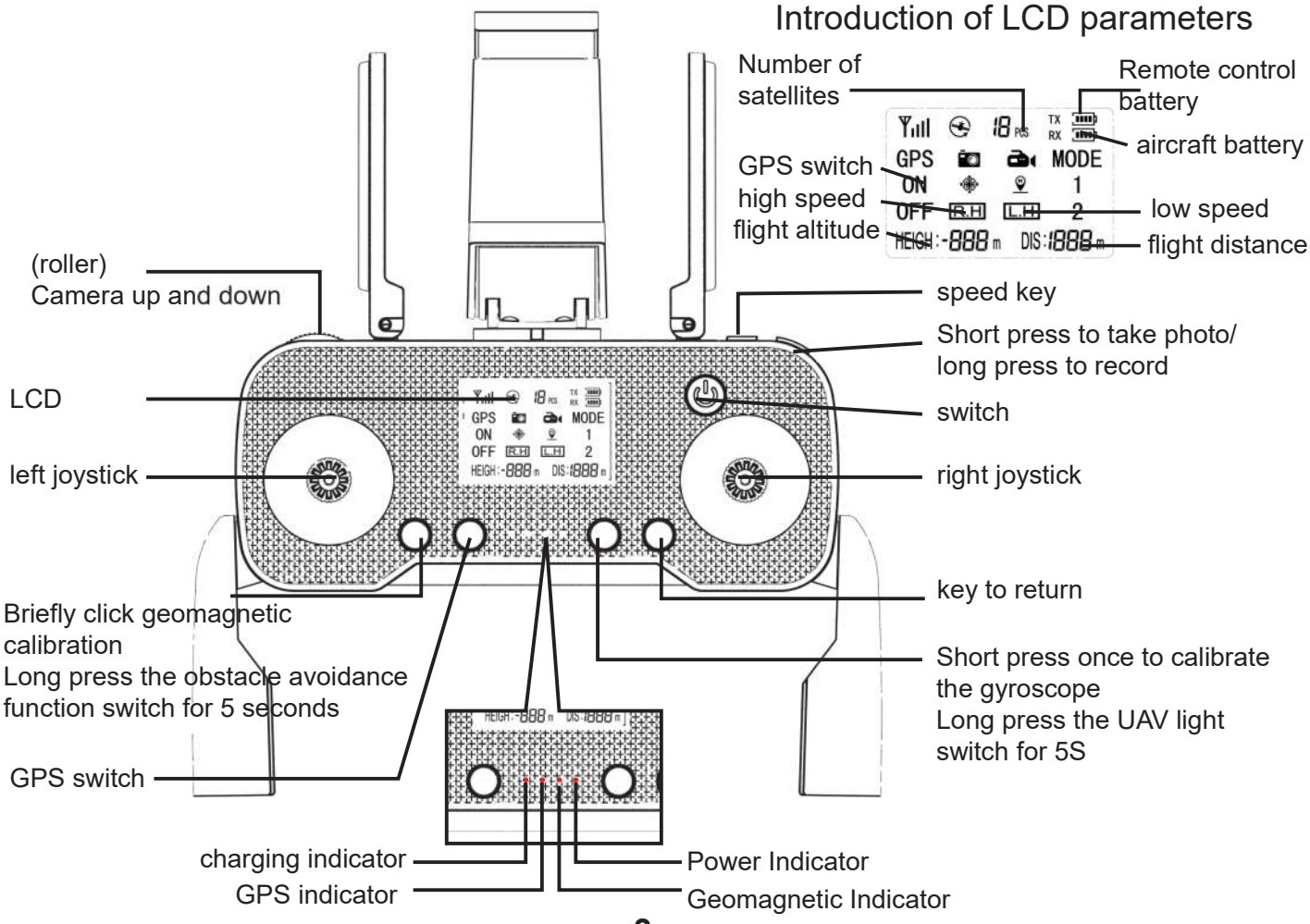




Blade replacement matters

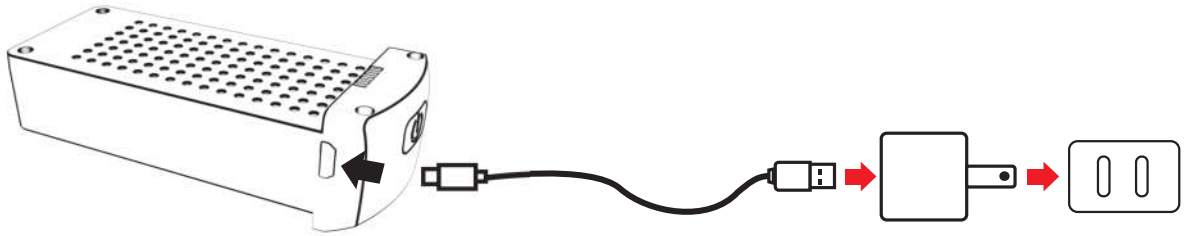
1. The fan blade to be replaced must be replaced in the corresponding position on the machine. Fan A needs to be installed at the position of A, and fan B needs to be installed at the position of B. If the fan blade is replaced incorrectly, it will not be able to control.
2. When flying, blade A rotates clockwise, and blade B rotates counterclockwise.

Remote control button function introduction



Charge the aircraft battery

Take out the USB charging cable and connect the battery interface to the charging head to the USB end



drone battery　　USB charging cable　　Adapter sold separately

Reminder: Please insert the plug in the correct way.
It is recommended to use a 5V 1-2A adapter for charging.

Charge the remote

The remote control is built-in battery, the red light is on when charging, and the red light is off after charging is completed, and the charging time is about 40 minutes.

USB charging cable　　Adapter sold separately

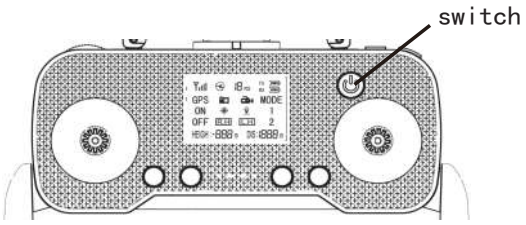
Reminder: Please insert the plug in the correct way.
It is recommended to use a 5V 1-2A adapter for charging.

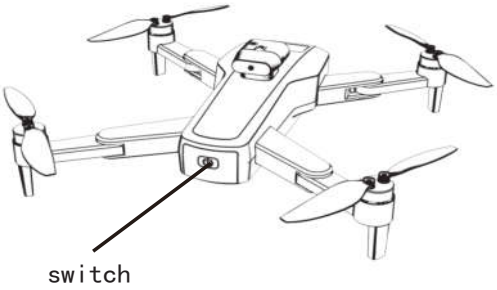
Precautions

● When charging the rechargeable battery, do not use it for children alone, it must be carried out under the supervision of an adult, and keep away from flammable objects when charging, and the guardian should not leave the model aircraft outside the monitoring range when charging.
● Please do not short circuit or squeeze the battery to avoid explosion.
● The power terminals should not be taken out of the model, and the terminals should not be short-circuited; do not short-circuit, disassemble or throw the battery into fire; do not place the battery in a high-temperature, heated place (such as in a fire or near an electric heating device).
● The model can only use the recommended charger. Regularly check whether the cable, plug, shell and other parts of the charger are damaged. If any damage is found, stop using it until the repair is complete.
● The charger is not a toy; the charger should only be used indoors.
● The battery needs to be charged and stored after the flight. If it is not used, it is recommended to charge the battery at least once every 3 months to avoid over-discharge of the battery and permanent damage to the battery.

aircraft pairing

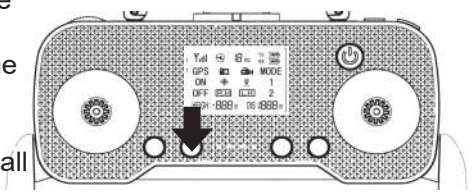
1. Put the battery of the aircraft into the battery slot of the aircraft in the correct direction, place the aircraft on a level ground, first press the battery switch briefly, then press and hold the battery switch for 5 seconds, the aircraft light flashes slowly, indicating that the power-on is successful.
2. Turn on the power of the remote control, hear a beep and the power indicator of the remote control is always on. The code is completed.





Airplane mode switch

Note: The product is powered on by default GPS mode (MODE2). In the case of less than 8 satellites, the drone can only unlock the motor but cannot take off. If you want to take off, you need to switch the optical flow mode before the satellite positioning is completed. Press and hold the GPS button for 5 seconds (the switching method is shown on the right), after the switch is successful, the remote control will make a beep, and the drone will not have all GPS-related functions at this time. Pay attention to the flight height and distance to avoid losing the drone!



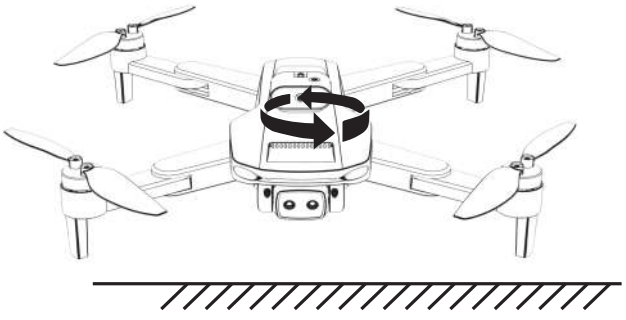
Note * After GPS positioning is completed, it cannot be switched to optical flow mode. If you want to switch, you need to turn off the drone and the remote controller and restart.

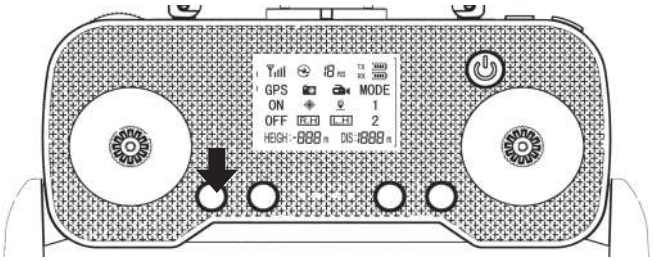
Compass Calibration

Compass calibration consists of two steps:

step 1 :

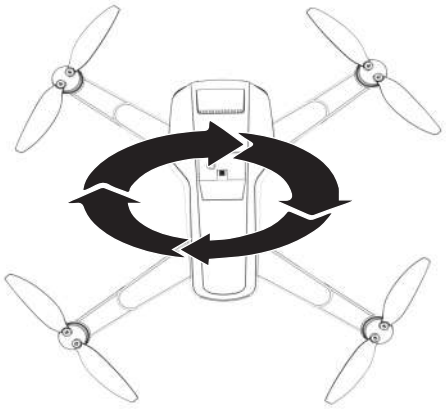
After the aircraft is successfully paired, place it on a flat surface, press the geomagnetic calibration button to turn the aircraft as indicated in the picture, rotate it horizontally for about 3 circles, and the remote control beeps until the indicator light stays on after the aircraft.





Step 2:

Put the nose of the aircraft up and "upright", as shown in the figure below, rotate the fuselage about 3 times and the remote control beeps until the front indicator of the aircraft is always on, and the compass calibration is completed.



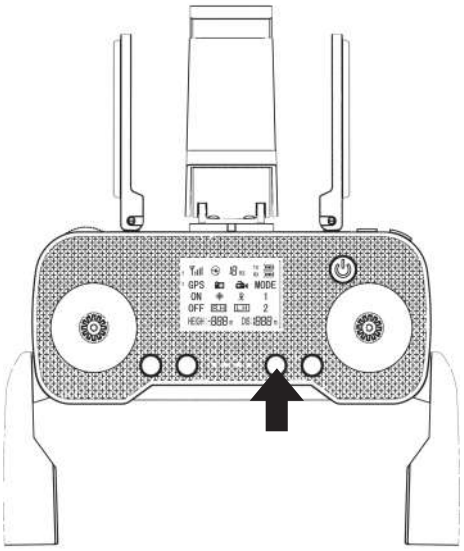
Note: If the compass of the drone is messed up and the drone is unlocked without calibration, the drone will be enabled to protect the program and cannot take off

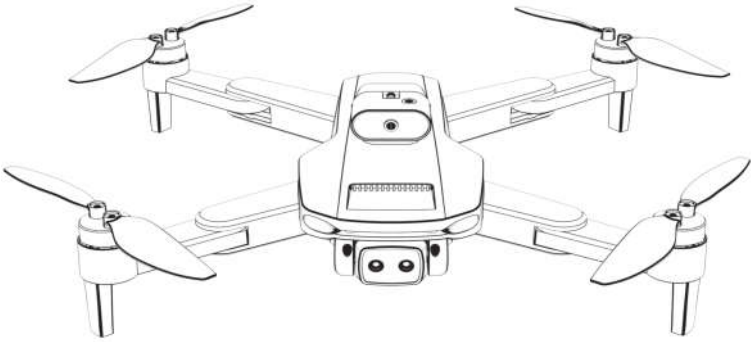
Note: The best distance is 1 meter above the ground during calibration

● Do not calibrate in areas with strong magnetic fields, such as magnetic mines, parking lots, construction areas with underground steel bars, etc.
● During calibration, do not carry ferromagnetic substances, such as keys, mobile phones, etc. with you.
● Do not calibrate near large pieces of metal.

Gyro Calibration

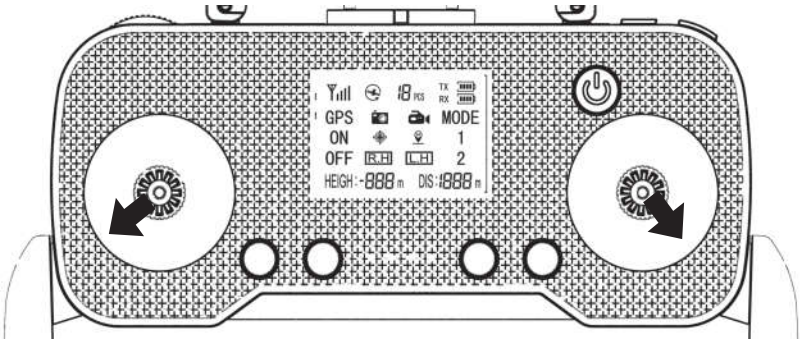
After the code alignment is successful, put the aircraft on the horizontal ground, press the remote controller briefly as shown in the following figure to give a "drip" sound. At this time, the front and rear indicator lights flash quickly, and the gyroscope enters the calibration state. When the indicator light changes from flash to constant light, the calibration is completed.





● When calibrating the gyroscope, be sure to place the aircraft on a level surface, otherwise the flight will be affected.

Star search: After the compass calibration is completed, the aircraft is placed flat on the horizontal surface, the aircraft will automatically search for stars and the rear indicator light of the aircraft will change from slow flashing to steady light. Push the stick to 45° in the lower left corner, and at the same time push the right stick to 45° in the lower right corner to unlock and take off.



Reminder: Please ensure that the take-off environment is open and the satellite signal is greater than 7 satellites before take-off.
In GPS mode, the drone will not be able to take off until the GPS positioning is completed.

basic flight

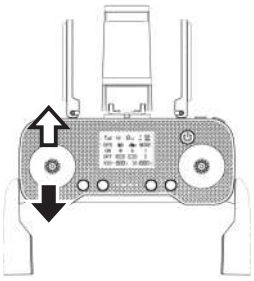
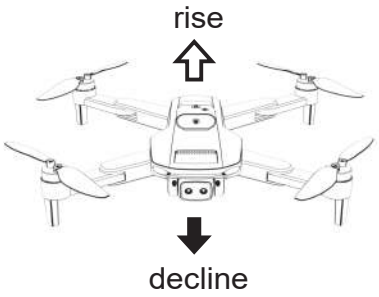
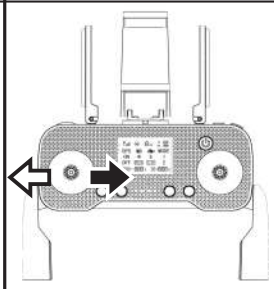
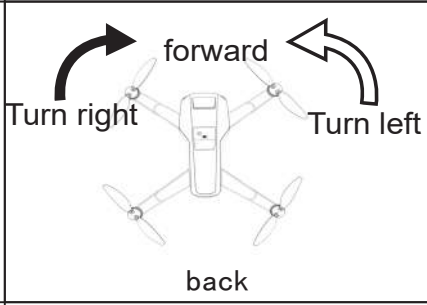
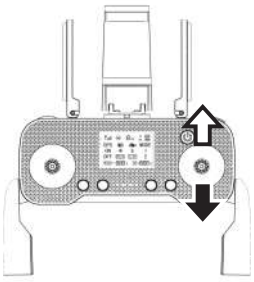
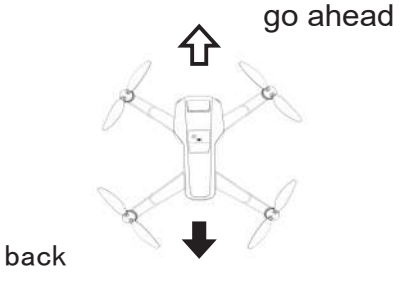
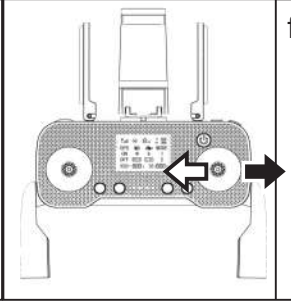
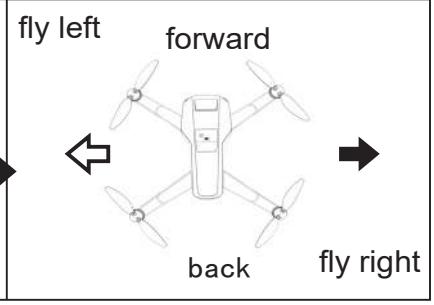
basic flight steps

1. Pair the remote controller with the aircraft, and the aircraft is initialized.
2. Compass calibration.
3. Connect the mobile phone Wi-fi to the aircraft and open the mobile APP.
4. After the gyroscope of the aircraft is detected, wait for the collection of stars, usually 60-80 seconds (more than 7), until the indicator light of the aircraft is always on.
5. Push the left joystick of the remote control to 45° in the lower left corner, and push the right joystick to 45° in the lower right corner. After unlocking, the aircraft starts.

pre-flight inspection

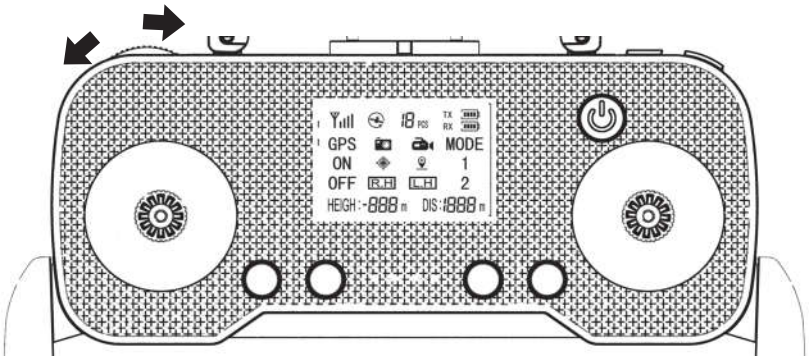
1. Check whether the batteries of the remote controller and aircraft are fully charged.
2. Whether the fan blades are installed correctly.
3. Whether the compass is calibrated successfully.
4. Whether the star received is normal (more than 7 stars).
5. Whether the motor starts normally after the power is turned on and unlocked.

flight control method

remote control	aircraft	remote control	aircraft
			
			

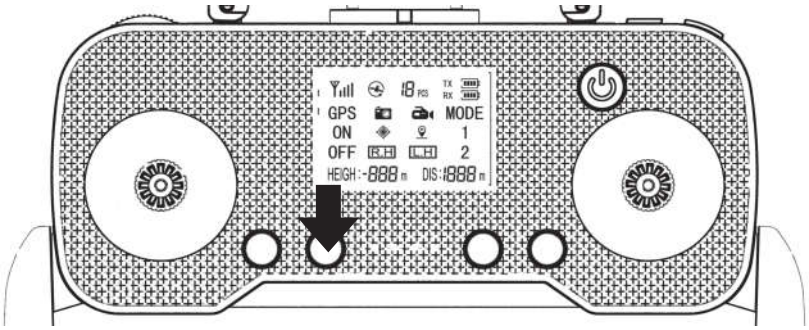
Servo function

When flying, you can even turn the wheel to adjust the camera angle.



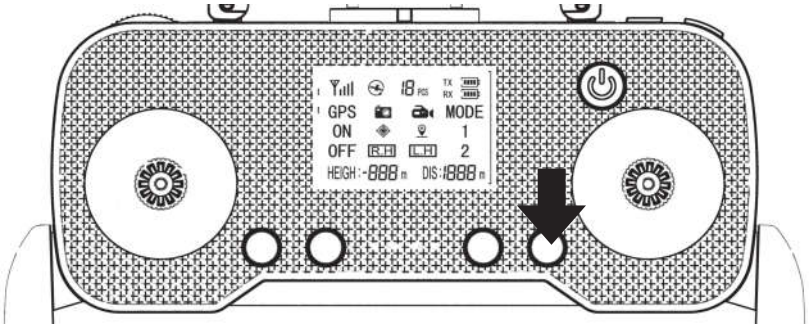
GPS switch function

It is recommended to use GPS mode in outdoor open areas to calibrate the geomagnetic search for satellites, which can be used for long-distance flight operations. If the satellite cannot be searched indoors, turn off the GPS switch and fly in the open space indoors. (Note: After turning off the GPS function, the flight does not have a series of GPS functions such as low-power return, one-key return, etc. Please pay attention to the flight distance and altitude when using it)



One-key return function

After the GPS function is turned on outdoors and the satellite search is calibrated to take off, the drone will fly far away or the drone is in a low power state. Press the one-key return button, and the drone will return to the initial take-off position.



return flight

The aircraft has a return-to-home function. If the home point is successfully recorded before takeoff, the aircraft will automatically return to the home point and land when the communication signal between the remote control and the aircraft is lost or when the return button is pressed to prevent accidents. There are three different ways to return the aircraft, which are:

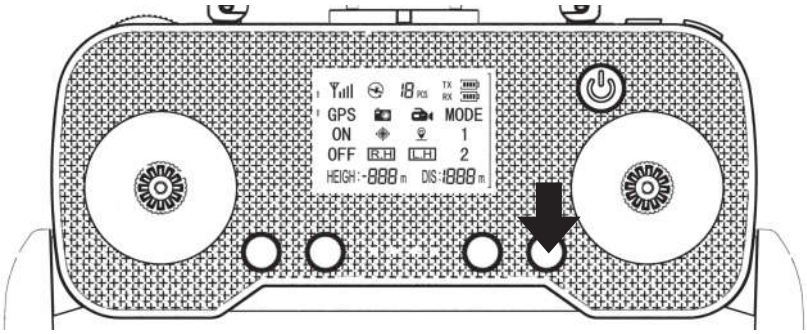
1. One-key return
2. Out of control return
3. Low battery return.

Home point:

When the GPS receives more than 7 stars for the first time during takeoff or flight, it will be recorded as the current position of the aircraft as the home point.

One key return

When the GPS signal is good (the number of satellites is greater than 7), you can start the aircraft to return to home by pressing the button below on the remote control. The process of returning to home is the same as that of the uncontrolled return. The difference is that when the aircraft returns and lands, the user can use the joystick to control the aircraft to avoid obstacles. Press the " " button to exit the return home, and the user can regain control.



runaway return

The GPS signal is good (the number of GPS satellites is greater than 7), the compass is working normally, and after the aircraft successfully records the home point, if the remote control signal continues to be interrupted for more than 6 seconds, the flight control system will take over the control of the aircraft and control the aircraft to fly back to the recorded return point. point. If the remote control signal is restored during the flight, the return-to-home process will continue, but the user can cancel the return-to-home through the remote control return button and regain control of the aircraft.

Notes for return flight:
- During the auto-return process, the aircraft cannot avoid obstacles.
- When the GPS signal is poor or the GPS does not work, you cannot return home.
- If the aircraft does not receive satellites and the remote control signal continues to be interrupted for more than 6 seconds,

The aircraft will not be able to return home, so it will descend slowly until it locks on landing.

low battery return

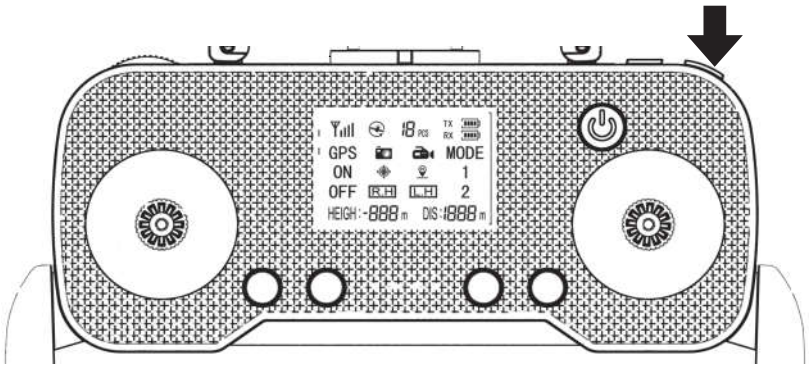
The indicator light will flash slowly after the low voltage of the aircraft. At this time, the aircraft will automatically return to around 20 meters from the take-off point.

● When the voltage of the aircraft is lower than the safe value, it will automatically land to the home point

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

Photo/Video

During the flight, you can use the camera or video on the remote control to record the images captured during the flight. Short press the camera button on the remote control, the camera takes a photo, long press the camera button on the remote control, the camera starts recording, and long press the button again. Exit recording mode.



Common troubleshooting

	question	Solution
1	Mode 1 The drone motor does not rotate, the aircraft cannot take off, and the light flashes	If the GPS function is not turned off, the drone enables the protection program and long press the GPS switch for 5 seconds to turn off the GPS function
2	Mode 1 after the GPS function is turned off. The drone motor can turn, but the drone cannot take off. The light flashes quickly and slowly	Recalibrate geomagnetism after reboot
3	After taking off in mode 1, the drone keeps flickering and cannot hover, floating around	The ground is too smooth and the environment is too dark, which will cause the optical flow lens to be unsteady. Please fly in a place with good light and no reflection on the ground.。
4	After taking off in mode 2, the drone keeps flickering and cannot hover, and it floats around. The remote control keeps switching between mode 1 and mode 2	GPS positioning is not good, too much interference. Please take it to an open, unobstructed, high-voltage wire-free place
5	Mode 2: The motor of the drone can rotate, but the aircraft cannot take off, and the light flashes quickly and slowly	Recalibrate geomagnetism after reboot
6	The drone vibrates violently	The fan blade is deformed or damaged, and the fan blade needs to be replaced

The working principle of GPS function and precautions for use

After the UAV and the remote control are successfully paired, the GPS module on the UAV will be connected to the satellite. After the satellite accuracy reaches the positioning standard, the remote control displays MODE 2, that is, the GPS positioning is completed, and the UAV remembers the take-off point.
When taking off in GPS mode, if the signal is interrupted, it is generally divided into the following two situations:
1. The signal of the UAV and the remote control is disconnected: When the signal of the UAV and the remote control is interrupted for more than 6 seconds due to over-distance or signal interference, and the GPS signal of the UAV is normal, the UAV will turn off the signal and return to the take-off point.
2. UAV GPS signal interruption: When encountering large obstructions, signal interference, etc., it may directly cause the UAV to fail to receive satellite signals, the UAV GPS signal is interrupted, the UAV cannot locate, and the signal cannot pass through the interruption. Return to home or one-key return to return to the take-off point.

The influence of temperature and environment on the use of UAV lithium battery:

1. The temperature has a certain influence on the lithium battery: the best use temperature of the battery is 20 ° C ~ 30 ° C, the low temperature environment will reduce the activity of lithium ions, make the battery discharge capacity weaker, and shorten the use time.
2. The influence of the flight environment on the battery life. When the UAV encounters a strong wind or is flying against the wind, the resistance will lead to fast power consumption and shorten the battery life.
Therefore, before flying outdoors, please pay attention to the weather and the surrounding environment. If the temperature is low and the wind is strong or you are flying against the wind, be careful not to fly high and far, and return to the flight ahead of time when the battery power is sufficient to avoid being unable to complete the return flight due to insufficient power halfway.

Safety Guidelines

To avoid unforeseen circumstances, the following safety guidelines should be followed when flying a drone:


Get a good GPS signal before taking off


Keep both hands to control the aircraft at all times


Check the accessories and the appearance of the body to ensure that the device is fully charged


Fly at a safe altitude and avoid canyons


Fly at a safe height and avoid buildings with large height differences such as tall buildings

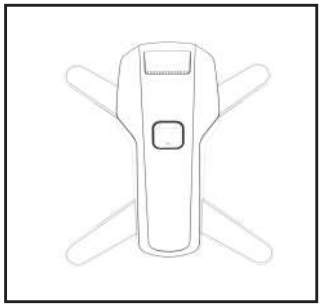

Avoid places with large signal interference such as signal towers and wire towers


Flying in open space and line of sight Never fly over people, animals or moving vehicles for safety reasons

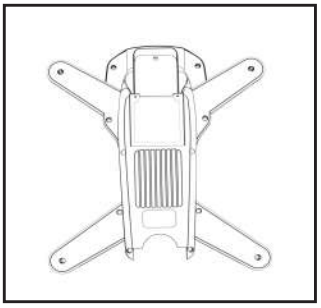

Stay awake and do not fly after drinking

Comply with local laws, check relevant laws before flying

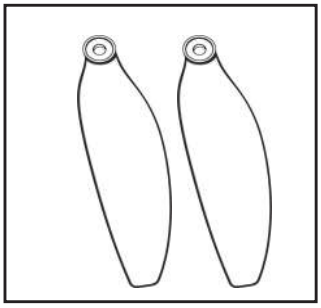
Parts List



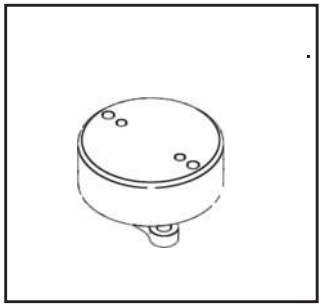
cover



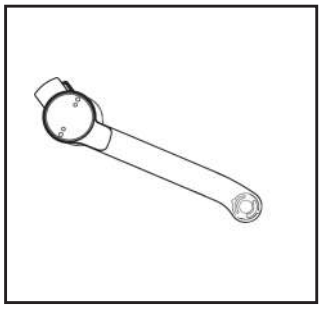
lower lid



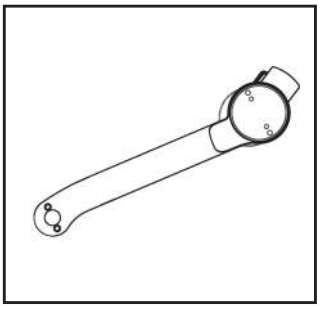
wind blade



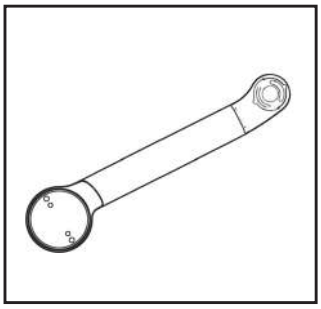
motor



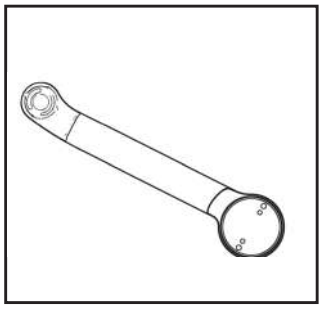
Arm Front A



Arm Front B



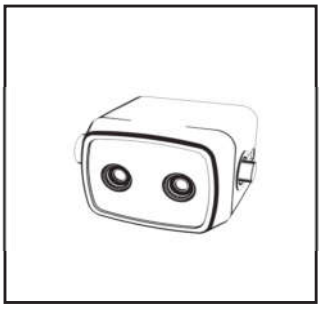
Arm rear A



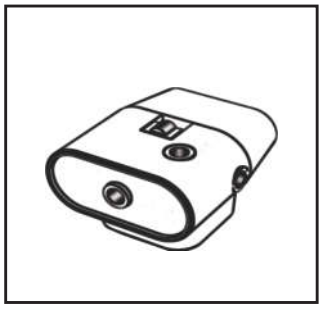
Arm rear B

circuit board

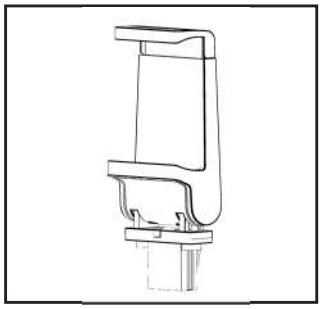
Battery



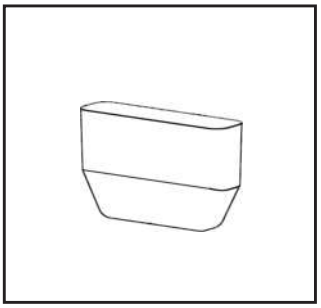
camera



Obstacle avoidance module(apolegamy)

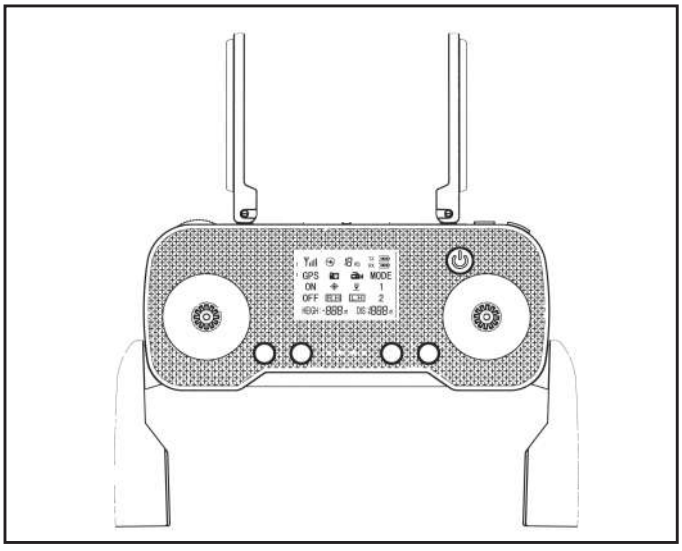


phone stand



foot pad

USB



remote control

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

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.

RF Exposure Information
The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.