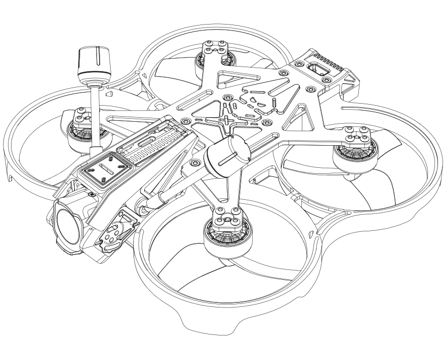
DRONEER

# Quick Start Guide

V1.0



For Cinewhoop Series C2501

www.droneer.com

## Pre-Takeoff Precautions

1. Ensure the drone is undamaged, the batteries show no signs of swelling or leakage, the equipment is properly connected, and the VTX is stable.
2. Confirm that the propellers rotate in the correct direction and that all screws are securely fastened.
3. Ensure that the battery is tightly secured with straps.
4. Ensure the battery is fully charged.
5. Turn on the remote control, select the correct mode, and confirm the unlock switch is locked with the throttle at the lowest position.
6. Check for frequency conflicts between FPV goggles and the screen.
7. After powering on the drone, maintain a 1-meter safety distance for test unlocking.
8. Take off only in areas permitted by local laws/regulations.
9. Fly in locations with good GNSS signal reception.

## Battery Installation

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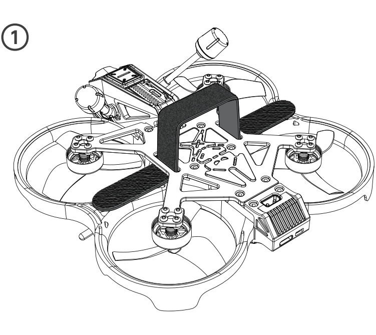

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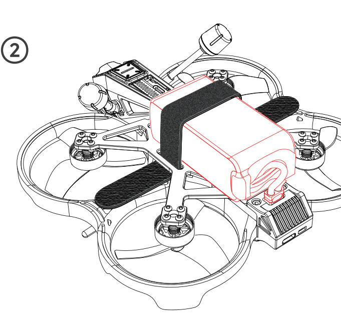

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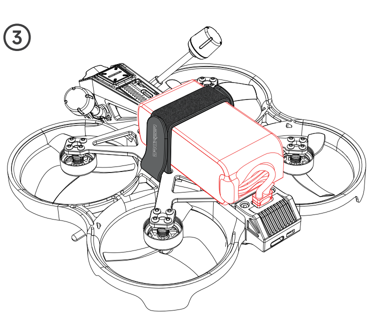

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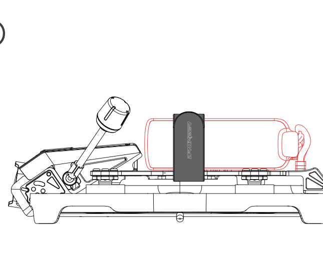
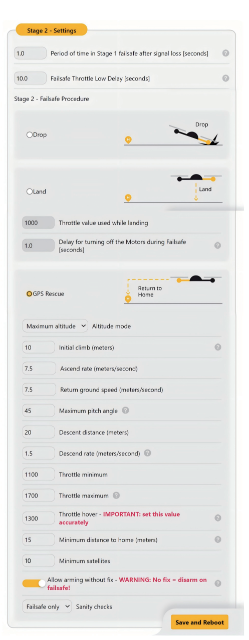


## GPS Rescue

1. GPS Rescue Mode is disabled by default. To manually control the rescue function, an unused auxiliary switch must be assigned.
2. The factory default setting requires at least 5 satellites to disarm the craft. In the BetaFlight (4.4) Configurator, enable Expert Mode to access the Failsafe tab and configure the GPS Rescue feature.
3. GPS Rescue Mode can automatically return the aircraft above its takeoff point in emergencies (such as a lost control situation or when manually activated via a switch). Since GPS Rescue Mode cannot achieve precise landing, you should regain manual control of the aircraft as soon as it enters a controllable range during the rescue phase.
4. The drone must fly horizontally beyond 100 meters from the takeoff point for the GPS Rescue function to activate properly. Ensure the Home arrow is pointing towards your takeoff direction to confirm proper GPS functionality. Once GPS Rescue Mode is activated, closely observe the drone's return path.
5. Your environment affects the speed and no. of GPS satellite acquisitions. Conditions such as bad weather or obstructed areas can reduce the number of satellites and lower accuracy, possibly preventing reliable GPS function before takeoff or even during flight. To ensure the rescue function can activate, please confirm that the number of received satellites is greater than 10 before takeoff.

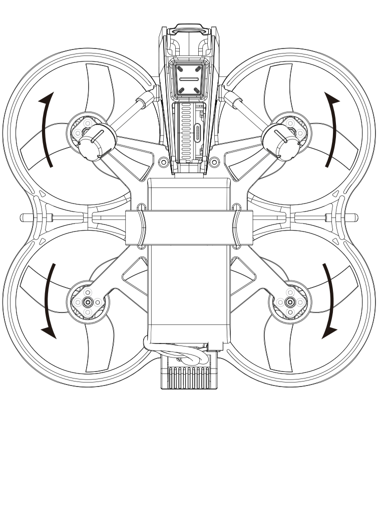


Stage 2 - Settings
1.0 Period of time in Stage 1 failsafe after signal loss [seconds]
10.0 Failsafe Throttle Low Delay [seconds]
Stage 2 - Failsafe Procedure
○ Drop
○ Land
1000 Throttle value used while landing
1.0 Delay for turning off the Motors during Failsafe [seconds]
● GPS Rescue
Maximum altitude — Altitude mode
10 Initial climb (meters)
7.5 Ascend rate (meters/second)
7.5 Return ground speed (meters/second)
45 Maximum pitch angle
20 Descent distance (meters)
1.5 Descend rate (meters/second)
1100 Throttle minimum
1700 Throttle maximum
1300 Throttle hover - IMPORTANT: set this value accurately
15 Minimum distance to home (meters)
10 Minimum satellites
Allow arming without fix - WARNING: No fix = disarm on failsafe!
Failsafe only — Sanity checks

**Warning:** The drone can only return when there are ≥ 10 GPS satellites available.

## Propeller Installation Tips

Propellers with marks and those without marks indicate different rotation directions respectively. It is necessary to strictly follow the instructions to install different propellers in their corresponding positions.



## 起飞前注意事项

1. 确保机体无损坏、电池无鼓包/漏液、设备连接正常、图传稳定。
2. 确认螺旋桨旋向正确，螺丝已拧紧。
3. 确保电池已用绑带固定牢靠。
4. 确保电池电量充足。
5. 打开遥控器，选择正确模式，确认油门在最低位，解锁开关处于上锁状态。
6. 检查FPV 眼镜和屏幕是否有频率冲突。
7. 上电后保持至少1米安全距离，再进行解锁测试。
8. 请在当地法律法规允许的区域起飞。
9. 请在GNSS信号良好地方飞行。

## 电池安装

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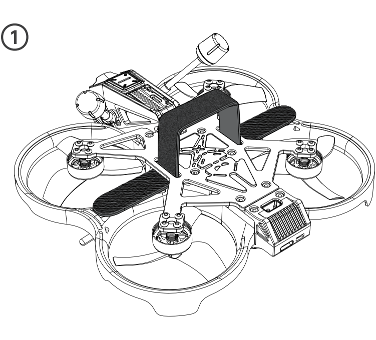

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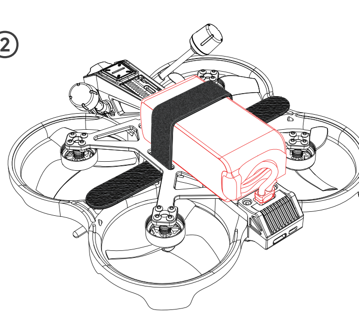

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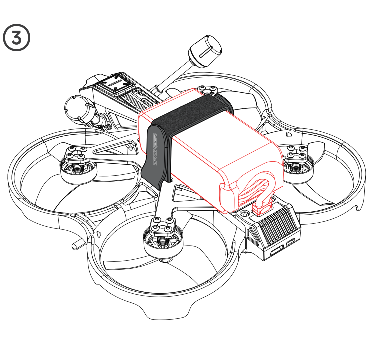

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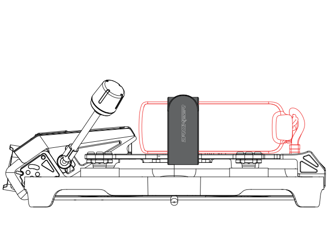
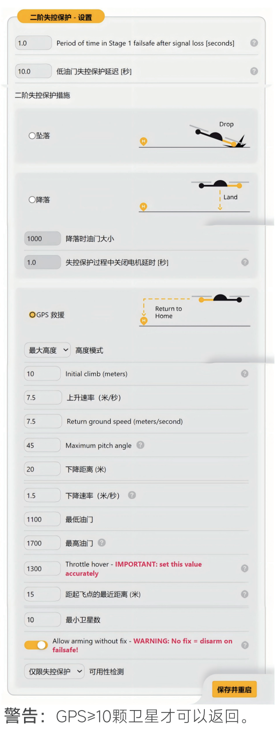


## GPS救援

1. GPS救援模式默认处于关闭状态，要手动控制救援功能，需要设置一个空闲的拨档开关。
2. 出厂默认设置需要至少5颗卫星才能解锁，在BetaFlight(4.4)地面站中，启用专家模式访问Failsafe菜单，来配置GPS救援功能。
3. GPS救援模式能够在紧急状况下，自动把飞机带回起飞点上空（像出现失控情况，或者手动拨动拨杆启动GPS救援模式时）。由于GPS救援模式没办法实现精准降落，所以在救援模式下，当飞机进入可控范围后，要尽快手动操控飞机。
4. 无人机需水平飞离起飞点100米以上 ，GPS救援功能才能正常激活；请确保回家箭头朝向你的起飞方向，以保证GPS功能正常。激活GPS救援模式后，要注意观察无人机的返航轨迹。
5. 您所处的环境会影响GPS的搜星速度和搜星数量，像恶劣天气、存在障碍物的区域，都会让卫星数量变少、精度降低，使得GPS在起飞前甚至飞行时都可能无法可靠运行。为避免救援功 能无法正常启用，起飞前请确认接收到的卫星数量大于10颗。
6. GPS救援模式参数设置：

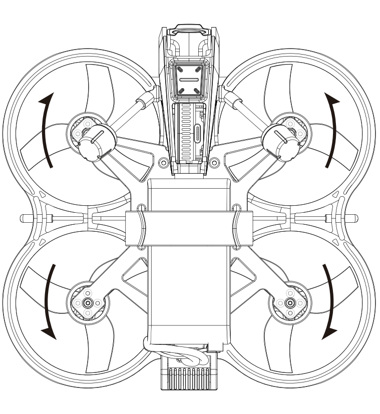


二阶失控保护 - 设置
1.0 Period of time in Stage 1 failsafe after signal loss [seconds]
10.0 低油门失控保护延迟 [秒]
二阶失控保护措施
○坠落
○降落
1000 降落时油门大小
1.0 失控保护过程中关闭电机延时 [秒]
●GPS 救援
最大高度 — 高度模式
10 Initial climb (meters)
7.5 上升速率（米/秒）
7.5 Return ground speed (meters/second)
45 Maximum pitch angle
20 下降距离 (米)
1.5 下降速率（米/秒）
1100 最低油门
1700 最高油门
1300 Throttle hover - IMPORTANT: set this value accurately
15 距起飞点的最近距离 (米)
10 最小卫星数
Allow arming without fix - WARNING: No fix = disarm on failsafe!
仅限失控保护 — 可用性检测

警告：GPS≥10颗卫星才可以返回。

## 螺旋桨安装提示

带标记和不带标记的螺旋桨分别指示了不同的旋转方向，需严格按照指示，安装不同的螺旋桨至相应的位置。



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