DARWIN CineApe 25
使用说明书

注意事项

① 由于"DARWINF411"目标固件的黑匣子功能目前不兼容 Betaflight 4.3.0 和 4.3.1（预计 4.3.2 正式版会增加黑匣子功能） 如急需使用黑匣子请升级到 4.4.0 开发版或降级到 4.3.0_RC3 及以下版本固件。

② 飞机仅支持 3-4S 航模锂电池使用，切勿接入 4S 以上的电池，以免烧坏飞机。

③ 切记不得将电池接反，否则会烧坏飞机。

④ 收到产品后先进入 Betaflight 查看是否有检测陀螺仪和加速度计，以及陀螺仪姿态是否正常。

⑤ 在 Betaflight 中拉动油门,确保四个电机正常转动包括电机转向正确，再装桨试飞；拉油门时务必卸桨，以免发生重大事故。

确认以上注意事项无任何产品问题即可装桨开始爽飞！

产品概述

CineApe 25 是 DarwinFPV 推出的首款影视级圈圈穿越机，机身由上下两层碳板和高强度注塑圈组成，非常结实耐撞且方便拆装。电机采用 DJ 同款 1504 电机，质量性能效率无需多言，懂得都懂。 电设采用 F4+30A 飞塔，分体设计减少后期维修成本。整机配件均采用成熟且稳定的方案，最大化提升产品的耐用性和可靠性。

CineApe 是极具性价比的一款圈圈机，它不仅解决了新手对穿越机危险系数高，组装门槛高的顾虑而且也提升了售后体验。如果你还在纠结不知道买哪种穿越机的话， DarwinFPV CineApe 25 也许会是你最好的选择！

产品特点

采用高强度一体式注塑螺旋桨保护罩， 安全系数更高、机身更为坚固耐用，也降低了风险发生概率，让你更有底气去穿行。

全新的涵道气动布局设计大幅优化了动力效能，搭配 1504-3600KV 长续航电机，为 CineApe 25 带来长达 9mins 的续航时间。

与传统飞塔相比，我们对 CineApe 25 飞塔进行了灌胶防护处理，大幅降低飞塔因接触金属颗粒、细沙碎石、杂草或露珠等而损坏的风险。

外置 Type-C 调参口，方便调参；快拆式设计，只需拆下七颗螺丝即可分离顶板和注塑保护罩，轻松应对急需更换配件的场景。

F4 3-4S 30A 飞塔内置气压计和 SD 卡槽，预留丰富的资源接口，方便后续升级及 DIY。

产品规格

品牌：DarwinFPV

型号：CineApe 25 影视级穿越机

机架类型：正 X

轴距：112mm

机身尺寸：160mm x 160mm x 43mm

飞控：F411 MPU6500 AT7456E

预留接口：1x SBUS(RX1 inverter)、2x Uarts(1,2)、2x Soft serial

　　　　　1x I²C、1x RGB、1x Buzzer、1x USER(A15)、1x USB

电调：BlueJay 3-4S 30A

摄像头和图传：

　　模拟版本：CADDX ANT 模拟摄像头 + 600mW 模拟图传

　　数字版本：CADDX WALKSNAIL AVATAR MINI 1S

　　　　　　　CADDX Nebula PRO NANO

　　　　　　　RunCam Falcon Nano

电机：1504-3600KV

螺旋桨：HQProp T63MMX6

推荐电池：LiPo 4S 650mAh-850mAh

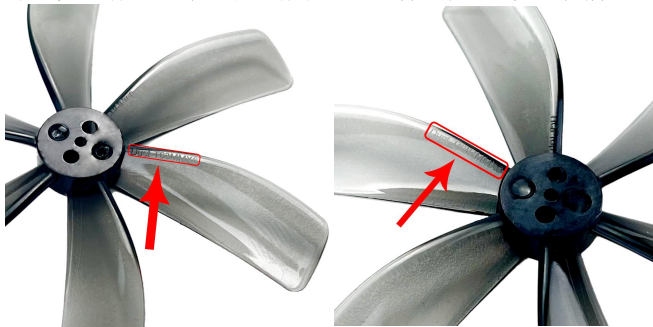悬停时间:9 分钟（使用 4S 850mAh 电池）

重量：146g(不带电池)

重量：238g(带 4S 850mAh 电池)

重量：250g(带 4S 850mAh 电池 + RunCam THUMB 相机)

重量：311g(带 4S 850mAh 电池 + 4K NANO1 运动相机)

DarwinFPV CineApe 25 采用了倒推设计，安装螺旋桨时一定要注意螺旋桨的安装方式！

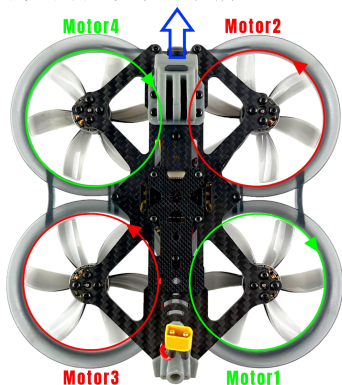第一步：将四个螺旋桨上有字的一面朝上放置，如下图所示：

第二步：

将写有 Duct T63MMX6 字样的两副螺旋桨分别安装在 2 号和 3 号电机上；
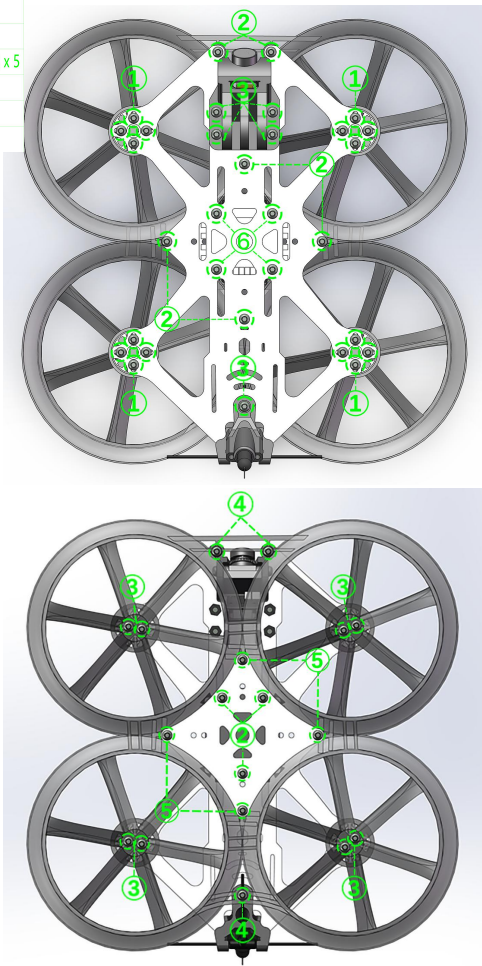
将写有 Duct T63RMMX6 字样的两副螺旋桨分别安装在 1 号和 4 号电机上；
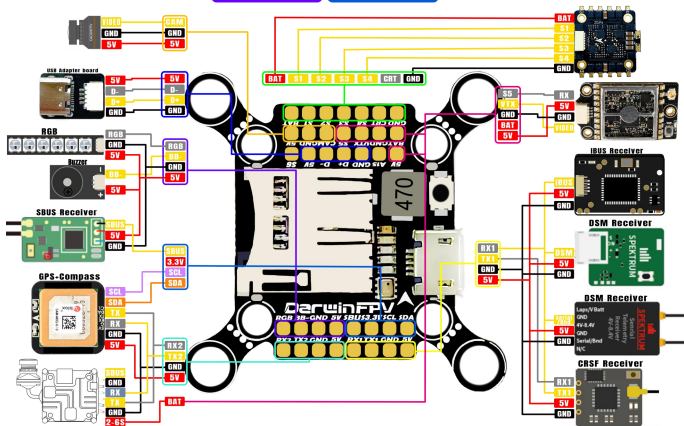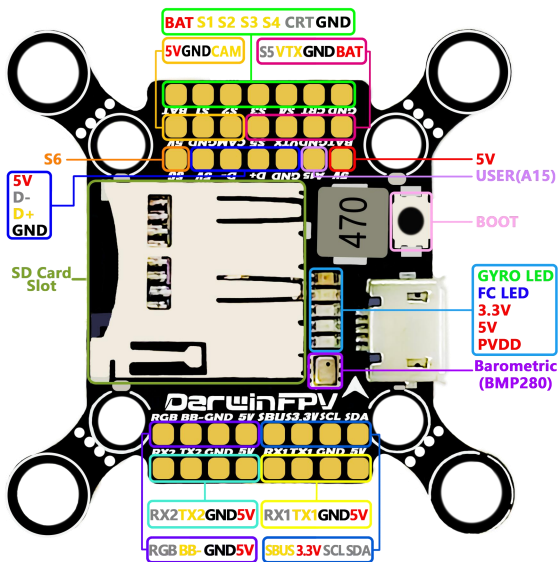
正确的螺旋桨安装方式，如下图所示：

螺丝清单

① M2 x 5 电机螺丝 x 16
② M2 x 6 图传螺丝 x 3、顶板螺丝 x 6
③ M2 x 7 螺旋桨螺丝 x 8、打印件螺丝 x 5
④ M2 x 10 注塑圈螺丝 x 3
⑤ M2 x 16 底板螺丝 x 4
⑥ M2 x 18 飞塔螺丝 x 4

飞控接线图

如何进入 DFU 模式

① 按住 Boot 键连接电脑，即可进入 DFU 模式；连接成功后 Betaflight 的端口处会显示 DFU。

②将 AIO 连接到 Betaflight，在"CLI(命令行)"中输入"BL"（大小写均可）也可进入 DFU 模式。
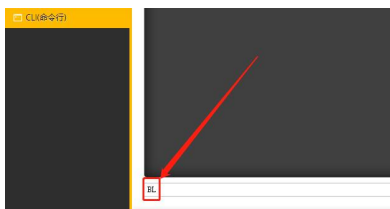
如何烧录固件

进入 DFU 模式后，选择"DARWINF411"固件和版本后加载固件，然后点击"烧写固件"等待烧写完成即可连接 Betafight。

烧写成功后 FC 的状态指示灯也会重新亮起

包 装 清 单

1 x CineApe 25 影视级穿越机
4 x HQProp T63MMX6 螺旋桨（2 正+2 反）
2 x 电池扎带 10x170mm
1 x EVA 防撞条
1 x EVA 底板减震垫
1 x 备用螺丝包
1 x 贴纸
1 x 说明书

更多有关 AIO 的固件、CLI、配置文件、最新的说明书等及更详细的配置教程，请到 DARWINFPV
官网支持下获取。

DARWINFPV 官网：https://www.darwinfpv.com

DARWIN CineApe 25
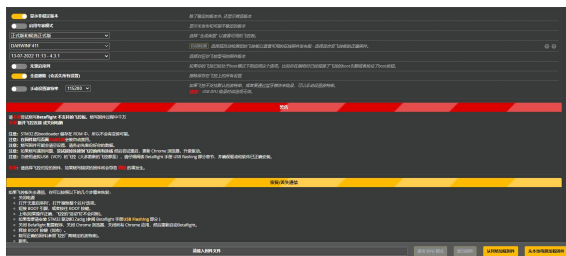## USER MANUAL
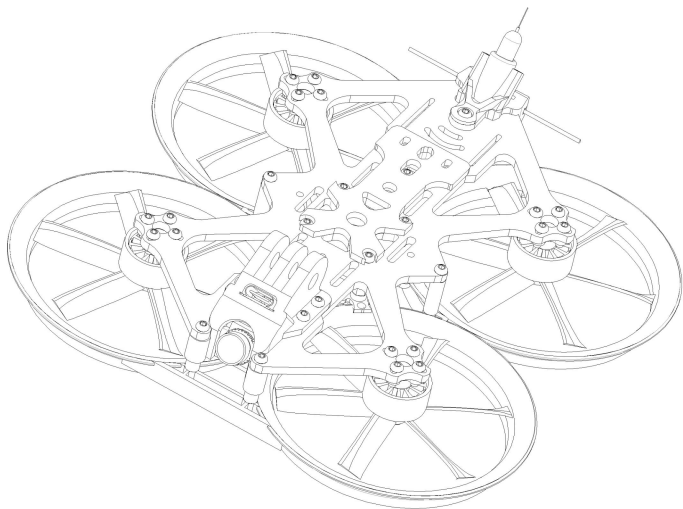
Instagram: @darwinfpv_official
Facebook: DarwinFPV1
Email: support@darwinfpv.com
Manufacturer
Shenzhen DarwinFPV Electronic Co.,Ltd
5F, Bldg Meihua, Huawei Innovation Valley Songbai Rd, Shiyan St, Bao'an district, Shenzhen city,
Guangdong province, China

DARWINFPV official website: https://www.darwinfpv.com

CAUTIONS

①Because the black box function of the target firmware "DARWINF411" is currently not compatible with Betaflight 4.3.0 and 4.3.1 (the black box function is expected to be added to the official version 4.3.2) If you need to use the black box urgently, please upgrade to the 4.4.0 development version or downgrade to 4.3.0_RC3 and below firmware version.

② The drone only supports the use of 3-4S Lipo batteries. Do not connect batteries above 4S to avoid burning the drone.

③ Must remember not to reverse the battery, otherwise it will burn the drone.

④ After receiving the AIO, first connect to computer on Betaflight software to check whether the gyroscope and accelerometer are detected, and whether the gyroscope attitude is normal.

⑤ Increase the throttle in Betaflight software to ensure the normal rotation and correct rotation direction of the 4 motors, and then install the propellers to test flight; Be sure to remove the propellers when pulling the throttle in Betaflight software to avoid accidents.

After confirming the above precautions, you can install the propellers and start flying.

SUMMARY

CineApe25 is DarwinFPV's first cinematic whoop FPV drone. The frame is composed of upper and lower carbon plates and a high-strength injection guard, which is very strong and crash-resistant and easy to disassemble. The motor adopts 1504-3600KV long-life motor; we abandoned the traditional AIO solution and adopted the split design of F4+30A stack to reduce the maintenance cost in the future. The accessories adopt mature and stable solutions to maximize the durability and reliability of the drone.

CineApe25 is a very cost-effective whoop FPV drone. It not only solves the worries of beginners about the high risk factors and high threshold of assembly, but also improves the after-sales experience. If you are still struggling with which FPV drone to buy, DarwinFPV CineApe25 may be your best choice !

FEATURES

Comes with high-strength one-piece injection-molded propeller guard, which has higher safety, stronger and more durable frame, also reduce the probability of risk, so you have more confidence to fly.

The new ducted aerodynamic design greatly optimizes power efficiency, and with the 1504-3600KV long-endurance motor, the CineApe 25 has a battery life of up to 9mins.

Compared with traditional stacks, we have treated the CineApe 25 stack with glue to protect it, which greatly reduces the risk of damage to the stack due to contact with metal particles, fine sand and gravel, weeds or dewdrops, etc.

The external Type-C parameter adjustment port is convenient for parameter adjustment. It comes with quick-release design only needs to remove 7 screws to separate the top plate and the injection molding guard, which can easily deal with the scene in which accessories need to be replaced urgently.

The stack has built-in barometer and SD card slot, and reserves rich interfaces resource, which is facilitate upgrade and DIY in the future.

SPECIFICATIONS

Brand: DarwinFPV

Model: CineApe 25 Cinematic FPV Drone

Frame Structure: True -X

Wheelbase: 112mm

Dimension: 160mm x 160mm x 43mm

Flight Controller: F411   MPU6500   AT7456E

Reserved Connector: 1x SBUS(RX1 inverter)   2x Uarts(1,2)   2x Soft serial

1x I^2C 1x RGB   1x Buzzer   1x USER(A15)   1x USB

ESC: BlueJay 3-4S 30A

Camera and VTX Option:

   Analog Version : CADDX ANT Analog CAM + 600mW Analog VTX

   HD Version : CADDX WALKSNAIL AVATAR MINI 1S

             CADDX Nebula PRO NANO

             RunCam Falcon Nano

Motor: 1504-3600KV

Propeller: HQProp T63MMX6

Recommend Battery: LiPo 4S 850mAh

Hovering Time: 9mins (4S 850mAh Battery)

Weight: 146g (Without Battery)

Weight: 238g (With 4S 850mAh Lipo Battery)

Weight: 250g (With 4S 850mAh Lipo Battery + RunCam THUMB Camera)

Weight: 311g (With 4S 850mAh Lipo Battery + 4K AIKUCAM NANO Action Camera)

PROPELLER INSTRUCTIONS

DarwinFPV CineApe 25 adopts the backward push design. When installing the propeller, be sure to pay attention to the installation method of the propellers!

Step 1： Place the 4 propellers with the words facing up, as shown in the figure below:
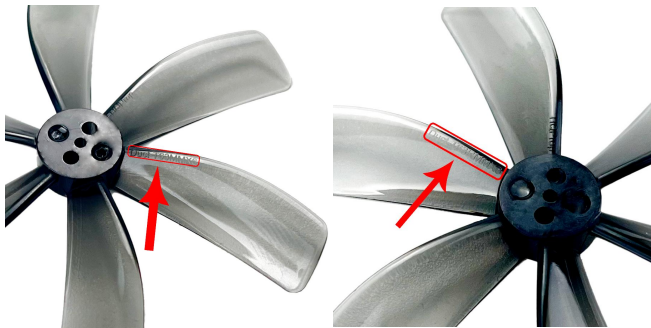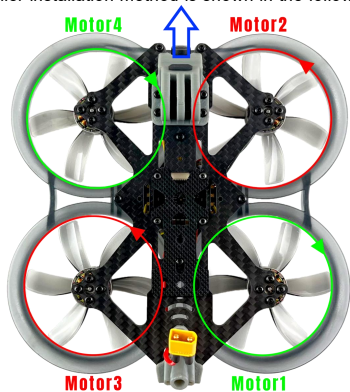

Step 2:

Install the two propellers with the words Duct T63MMX6 on the No. 2 and No. 3 motors respectively;

Install the two propellers with the words Duct T63RMMX6 on the No. 1 and No. 4 motors respectively;
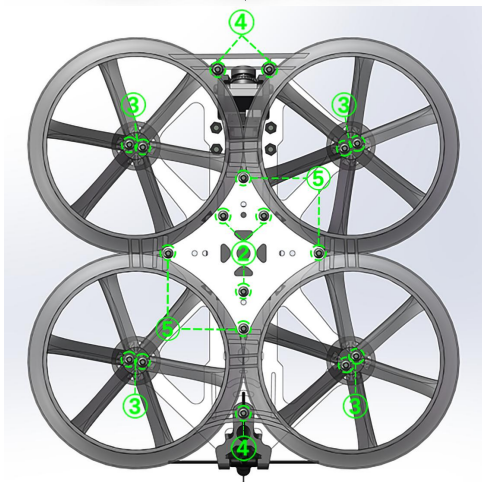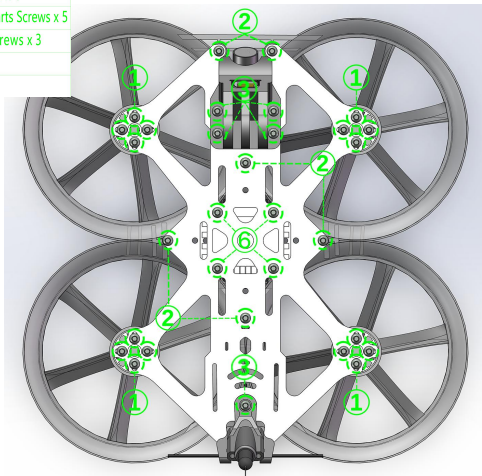
The correct propeller installation method is shown in the following figure:
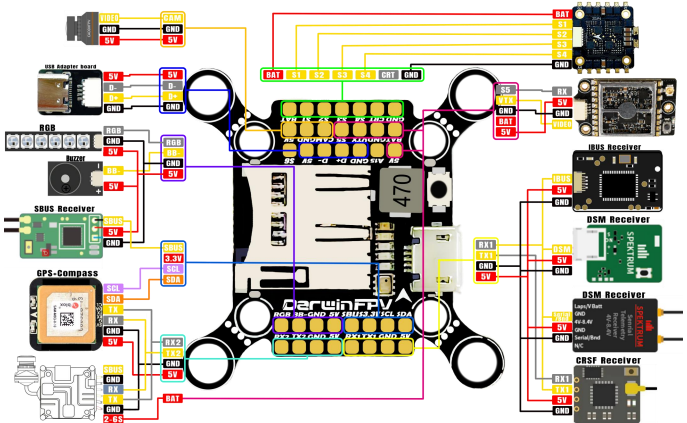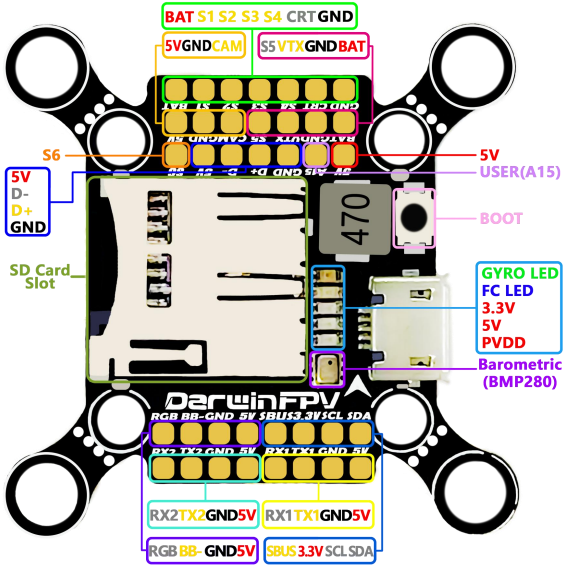
SCREWS BOM

Screws BOM

① M2 x 5 Motor Screws x 16
② M2 x 6 VTX Screws x 3, Roof Screws x 6
③ M2 x 7 Propeller Screws x 8, TPU Parts Screws x 5
④ M2 x 10 Injection Propeller Guards Screws x 3
⑤ M2 x 16 Bottom Plate Screws x 4
⑥ M2 x 18 STACK Screws x 4

FC WIRING DIAGRAM

BAT S1 S2 S3 S4 CRT GND

5V GND CAM   S5 **VTX** GND BAT

S6   5V

5V
D-
D+
GND   USER(A15)

BOOT

SD Card Slot

GYRO LED
FC LED
3.3V
5V
PVDD

Barometric (BMP280)

470

DarwinFPV
RGB BB-GND 5V SBUS 3.3V SCL SDA

RX2 TX2 GND 5V   RX1 TX1 GND 5V

RX2 TX2 GND 5V   RX1 TX1 GND 5V

RGB BB- GND 5V   SBUS 3.3V SCL SDA

IBUS Receiver

DSM Receiver

DSM Receiver

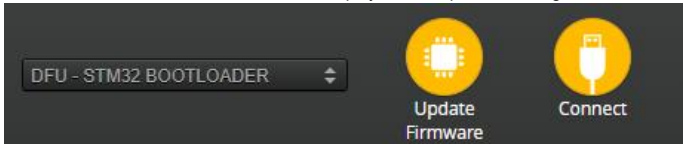CRSF Receiver

USB Adapter board

RGB
Buzzer

SBUS Receiver

GPS-Compass

HOW TO ENTER DFU MODE

① Press and hold the **Boot** button to connect to the computer to enter DFU mode; after the connection is successful, DFU will be displayed at the port of Betaflight.


② Connect to computer by USB-C cable, open the Betaflight software and click connect button - CLI menu, entering "**BL**" in the menu bar can also enter DFU Mode ("BL"can be uppercase or lowercase).
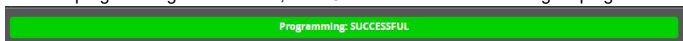

PROGRAMMING FIRMWARE

After entering the DFU mode, select the "**DARWINF411**" firmware and version and load the firmware, then click "Program firmware" and wait for the completion of the programming to connect to Betaflight.
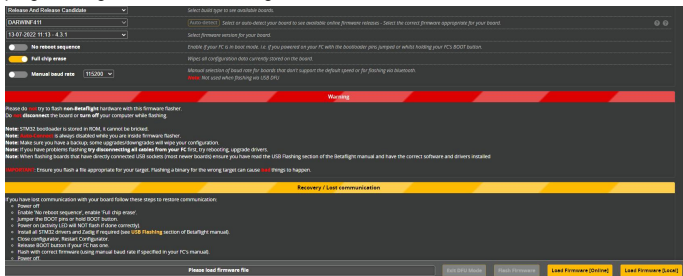
After the programming is successful, the FC status indicator will also light up again.

IN THE BOX

1 x CineApe 25 Cinematic FPV Drone
4 x HQProp T63MMX6 propeller (2L2R)
2 x battery strap 10x170mm
1 x EVA crashproof foam
1 x EVA bottom plate shock absorbing pad
1 x Spare Screw Kit
1 x Sticker
1 x Manual

For more information about AIO firmware, CLI, configuration files, the latest manuals etc., and more detailed configuration tutorials, please refer to DarwinFPV official website support menu.

DARWINFPV official website: https://www.darwinfpv.com

AFTER-SALES SERVICE

About Refunds: New/unopened/unused products purchased directly from DarwinFPV can be returned unconditionally within 20 workdays, and the customer is responsible for the return shipping cost. If the returned product is lost or opened for use, damaged or missing accessories, it will not be unconditional Refund.

About Warranty: If DarwinFPV determines that the problem is not covered by warranty, we will provide a discount for ordering new product replacement, and do not support free replacement.

Cases not supported by warranty:
1. Drone crash or fire damage due to user operation error.
2. Damage caused by incorrect soldering, improper installation and use.
3. Damage caused by unauthorized modification of circuit and mismatch of battery and charger.
4. Damage due to component aging or drone collision.

CONTACT

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