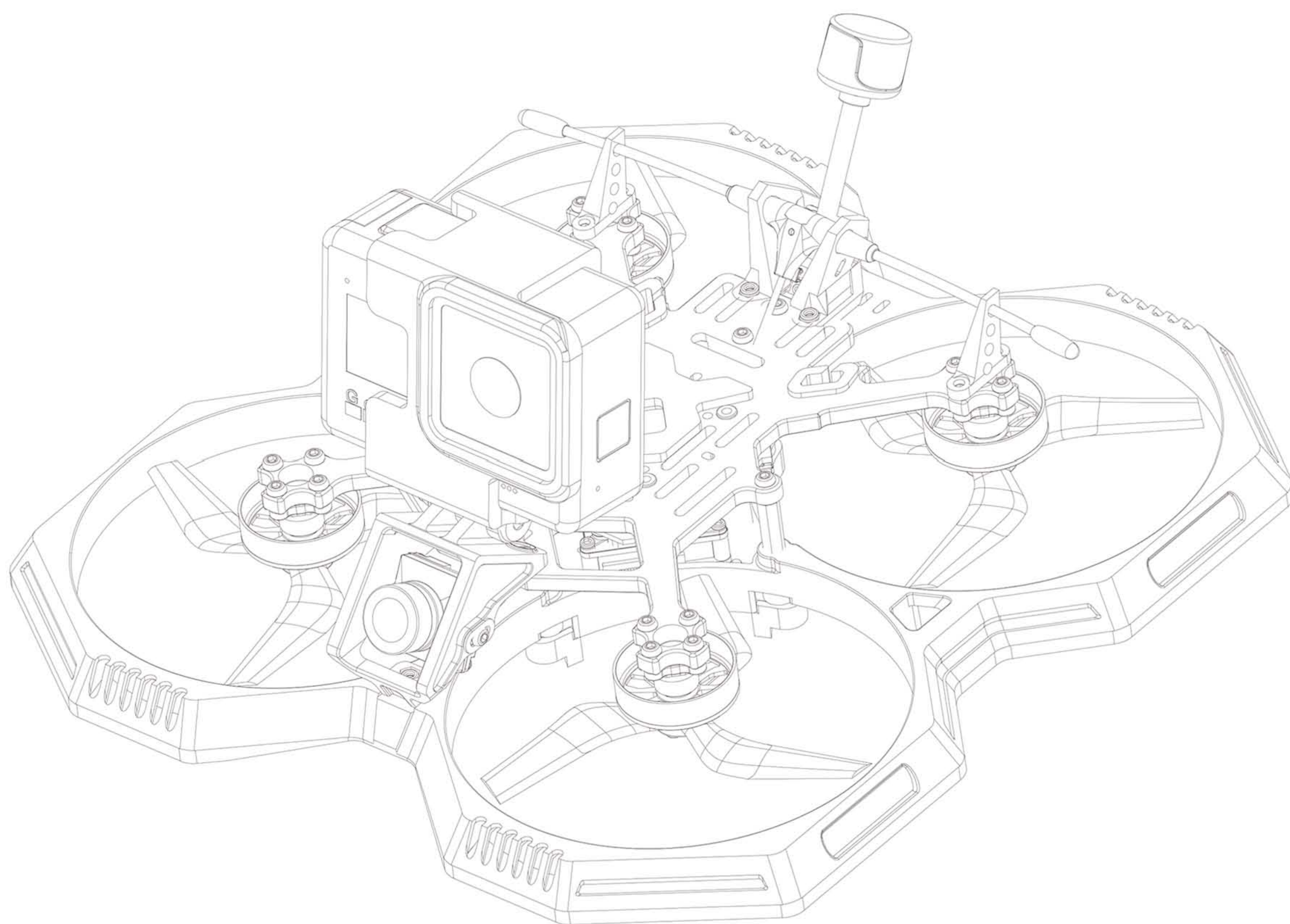


HEX35

FPV CINEMATIC DRONE



Instruction Manual 使用手册



WARNING

For age 14+ only. Rotation propellers may cause serious injury and damages!
Do not install propellers during setup procedures.
Check www.knowbeforeyoufly.org for drone safety.
Users in USA need register on FAA system: www.federaldroneregistration.com

安全注意事项及免责声明

本产品并非玩具，操作本产品需要对遥控模型有一定的了解，并具备一定的机械和电子知识，本产品使用不当或不熟悉都可能造成严重的伤害，甚至危及生命安全，使用之前请务必详读本说明书并对本产品有全面的了解，勿轻视并注意自身及他人的安全，注意：任何遥控模型飞行器的使用，制造商和经销商无法对使用者于零件使用的损耗异常或组装不当所发生的意外负担任何责任，本产品是为提供给有操作遥控模型经验的成人或在有相关技术人员指导并符合当地法规的条件下进行飞行，以确保安全，做为本产品使用者，您是唯一对于自己操作的环境及行为负全部责任的人。遥控模型飞行器是高危险性商品，飞行时务必远离人群，高楼，建筑物，高压线，等...请遵守在当地法规合法的场地飞行，人为组装不当或机构配件损坏，电子控制设备不良，以及操控不熟悉，都有可能导致飞行失控损坏等不可预测的意外，请飞行者务必注意飞行安全，并需了解自负疏忽所造成任何意外之责任。本产品不防水，请勿在下雨，打雷等恶劣的气候下操作，确保自身及产品的安全。每次飞行务必做好所有安全检查，请勿在有视频信号同频干扰条件下强制飞行。

Specifications:

Model:HEX35 FPV CineMatic Drone
ESC&FC:Aikon 60A F7 AIO
Wheel base: 138mm
Weight: 240g(without RX&battery)
Size:205x210x50mm
Motor:2004 1800KV/2900KV brushless motor/1.5mm shaft
Extension camera mount:M5 Hole/spacing 3+5+3 mm
Receiver:TBS Crossfire Nano/ELRS/NO Receiver(optional)
Propeller:GEMFAN D90-3
Package Included:
1x HEX35 Drone
1x Battery Mat Non-slip pad
1x Spare screw
2x Propeller
1x User Manual

Equipment Required For Assembly

以下设备 工具及软件不包含在本产品内，需要自行配备



Transmitter 6ch or more
六通道以上遥控器



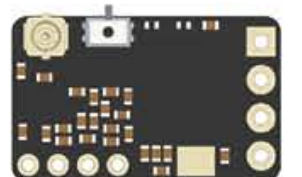
Fpv Goggles
FPV眼镜



Lipo Battery Charger
充电器



Lipo Battery 4-6S
电池



Receiver
PNP版本需要自备接收机

调参软件安装

地面站调参软件网址: <https://github.com/betaflight/betaflight-configurator/releases>

CP210X驱动程序网址: <https://www.silabs.com/products/development-tools/software/usb-to-uart-bridge-vcp-driver>

STM USB VCP驱动程序网址: <http://www.st.com/en/development-tools/stsw-stm32102.html>

Zadig:<http://zadig.akeo.ie/>

电调调参软件网址: <https://github.com/4712/BLHeliSuite/releases/tag/16714902a>

Install Betaflight Configurator

Betaflight Download: <https://github.com/betaflight/betaflight-configurator/releases>

CP210X Driver Download: <https://www.silabs.com/products/development-tools/software/usb-to-uart-bridge-vcp-driver>

STM USB VCP Driver : <http://www.st.com/en/development-tools/stsw-stm32102.html>

Zadig:<http://zadig.akeo.ie/>

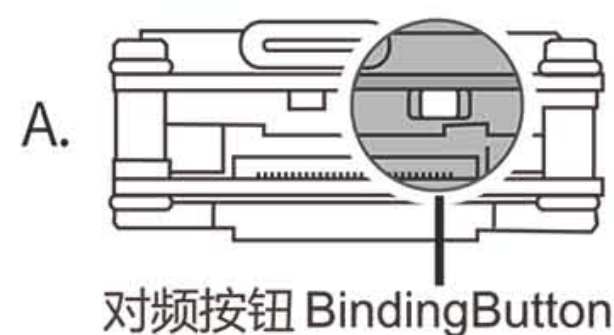
Esc software: <https://github.com/4712/BLHeliSuite/releases/tag/16714902a>

Activation Your Vista

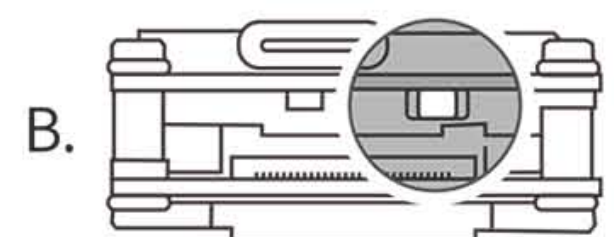
When powered on, connected the vista to your computer and run DJI ASSIST ANT™ 2 for activation. During the activation and upgrade process, there is a lot of heat. Please avoid direct contact to prevent burns. Overheating may lead to upgrade failure and unable to boot normally. You need to aware of the ambient temperature and use a fan to assist cooling. The warranty service does not support the crash caused by firmware refresh. Download DJI Assistant 2 at <https://www.dji.com/fpv/downloads>

Binding

The vista support there linking methods: A, B, and A+B (Must link A before B).



1. Power on the vista and the DJI FPV Goggles.
2. Press the link button on the vista and the goggles.*
3. The linking status indicator of the vista turns solid green. The goggles stop beeping when successfully linked and the video display is normal.



1. Power on the vista and the DJI FPV Remote Controller.
2. Press the link button on the vista, and then press the record button, C button, and right dial on the remote controller simultaneously.*
3. Both the linking status indicators turn solid green when successfully linked.

* When ready to link, the devices will give the following indication:
Vista: the linking status indicator turns solid red.
Goggles: the goggles beep continually.
Remote controller: the remote controller beeps continually and the status indicator blinks blue.

Binding Receiver

TBS CROSSFIRE

1. Just power up the TBS CROSSFIRE transmitter
2. On the standard transmitter, enter the configuration menu by pressing and holding the joystick for 3 seconds, select "General" and "Binding" - a message "Binding" will start blinking, waiting for the receiver. On the micro transmitter, a short press on the button will initiate binding mode. Now, power up the receiver (without pressing the Bind button!), if your receiver has not been previously bound, it will automatically bind. Otherwise, press and release the "BIND" button on the receiver to initiate binding. On the receiver is a timeout of one minute for after power up to enter bind mode. If the status LED will start blinking slowly the receiver has switched successfully to bind mode.
4. Within a few seconds, the process will finish with a "Binding complete" message on the standard transmitter, or a solid green LED on the micro transmitter. The receiver has now stored the unique serial number of that particular CROSSFIRE transmitter. If it doesn't bind, please verify that your firmware is to the newest version on both the receiver and the transmitter.

ELRS Receiver

ELRS Nano receiver could enter binding status by power on/off three times.

Plugin and unplug nano receiver three times;

Make sure the LED is doing a quick double blink, which indicates the receiver is in bind mode;

Make sure the RF TX module or radio transmitter enter binding status, which sends out a binding pulse;

If the receiver has a solid light, it's bound.

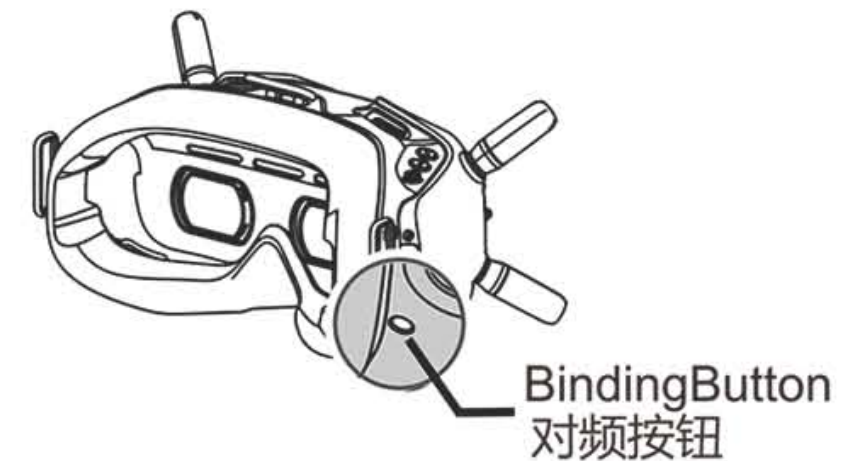
Note: Binding once and the receiver will store the binding information. Re-power and the connect successfully auto.

激活天空端

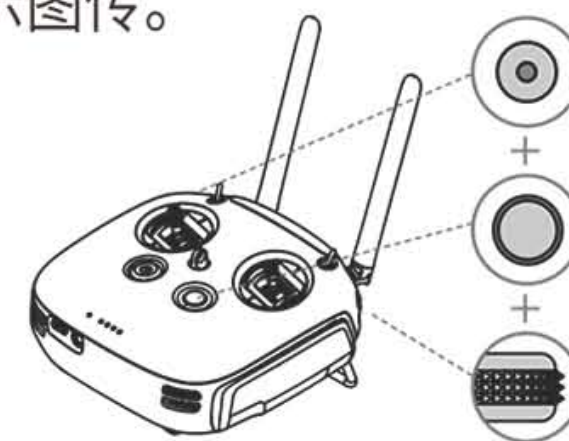
VISTA KIT 需在供电状态下连接至电脑并运行 DJI ASSISTANT™ 2 调参软件进行激活, 激活与升级过程中发热较大, 请避免直接接触以防烫伤, 过热可能会导致升级失败无法正常开机, 需注意环境温度和使用风扇辅助降温, 刷新固件导致的死机不支持保修服务。(调参软件下载地址: <https://www.dji.com/fpv/downloads>)

对频

天空端支持 A、B 以及 A+B (先 A 后 B) 三种对频方式。



1. 开启 Vista 及飞行眼镜。
2. 分别按下 Vista 及飞行眼镜的对频按键。*
3. 对频成功后, Vista 对频状态指示灯绿灯常亮, 飞行眼镜提示音停止并显示图传。



1. 开启 Vista 及遥控器。
2. 分按下 Vista 的对频按键, 再同时按下遥控器的录像按键、自定义按键 C 和右波轮。*
3. 对频成功后, Vista 和遥控器的对频状态指示灯均绿色常亮。

*准备对频时, 设备将给出以下指示: vista 链接状态指示灯变为红色常亮
视频眼镜: 视频眼镜持续发出哔哔声
遥控器: 遥控器持续发出哔哔声
状态指示灯呈蓝色闪烁 *更多详细信息参阅附件

接收机对频

TBS CROSSFIRE 接收机

1. 开启 TBS CROSSFIRE 发射器
2. 在标准发射器上, 长按操纵杆进入配置菜单 3 秒后, 选择 "General" 和 "Binding" 一条消息 "Binding" 将开始闪烁, 等待接收机。在微型发射器上, 短按按钮将启动绑定模式。现在, 给接收机通电 (不要按绑定按钮!), 如果你的接收机之前没有绑定过, 它会自动绑定。否则, 按下并释放接收机上的 "BIND" 按钮以启动绑定。在接收机上是一分钟的超时, 以便在通电后进入绑定模式。如果状态 LED 开始缓慢闪烁, 则接收器已成功切换到绑定模式。
4. 在几秒钟内, 该过程将在标准发射器上显示 "绑定完成" 消息, 或者微型发射器上的绿色 LED 常亮。接收机现在已经存储了唯一的该特定 CROSSFIRE 发射器的序列号。如果没有绑定, 请验证您的固件在接收机和发射器上都是最新版本。

ELRS 接收机

ELRS 接收器通过开关机 3 次进入绑定状态。

1. 插拔 nano 接收器 3 次;
2. 确保 LED 快速闪烁两次, 表示接收器处于绑定模式;
3. 确保 RF TX 模块或无线电发射器进入绑定状态, 发出绑定信号;
4. 如果接收器有稳定的灯, 它就被绑定了。

锁定油门和解锁油门

- 1.请先卸下所有螺旋桨.
- 2.连接Betaflight Configurator并进入模式选项栏.



- 3.插上电池给飞机供电.
- 4.将ARM模块右边的通道开关选项改为自动.
- 5.拨动您想用于解锁和上锁的开关通道(应选用有两档以上的开关),此时Betaflight Configurator会自动识别这个通道.



- 6.将开关拨到解锁位置并将滑块拖到黄色光标位置并保存.
- 7.关闭PREARM并保存.(如果想要使用此功能,需要指定一个自恢复开关来控制它)



- 8.断开电脑和电池,重新插上电池,测试解锁功能, 成功后安装螺旋桨.

Lock and unlock throttle

- 1.Please do take off all propellers in sake of safety..
- 2.Connect to Betaflight Configurator and select "MODE".



- 3. Power on the quad.
- 4.Switch to "AUTO" at the right side ARM module.
- 5.Flip assigned switch for "arm" back and forth(assigned switch should more than two positions), configurator should detect this channel automatically.



- 6.Switch it to "ARM" position and move the slide to the yellow pointer postion and save.
- 7.Turn off "PREARM" and save (if you want to keep this function, please assign a non-latch button)



- 8.Disconnect usb and battery then power on again to test if you are able to "arm" and "disarm" successfully. Install all propellers if everything work fine.

Installing the Propeller

螺旋桨安装

3.5"Proeller(Counter Clockwise)x2
3.5寸螺旋桨(反桨) x2



Counter Clockwise
反转

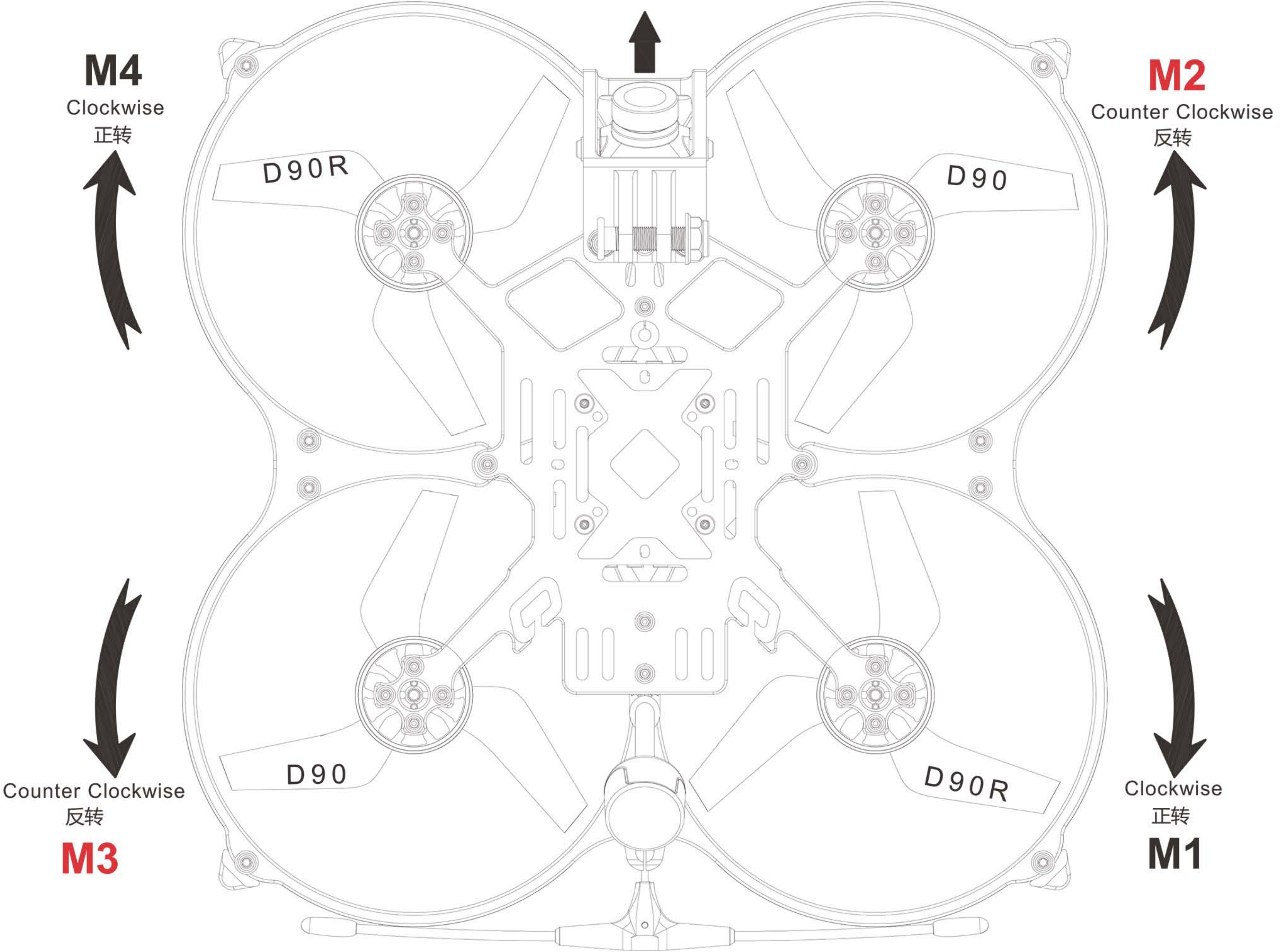
3.5"Proeller(Clockwise)x2
3.5寸螺旋桨(正桨) x2



Clockwise
正转

Socket screw
圆头内六角螺丝(M2x8)x8





WARNING:

Must check all propellers rotation direction before take off!
DO NOT have propellers installed during setting procedures.
Unexpected startup may cause serious damages or injury.

起飞前请仔细检查确保螺旋桨已经安装正确
请勿在设置过程中安装螺旋桨
意外启动可能会导致严重的损坏或伤害。

Connection of Electronic Componets

AIKON 60A/45A F7 AIO

Specs:

MCU: STM32F722RET6

Gyro: BMI270

Flash: 16Mb on board

OSD: BetaFlight OSD (AT7456E)

Input: 3-6S

Bec: 5V2A, 10V 2A

Firmware: AIKON F7

Size(mm): 43x43x5.5

Mounting Hole: 25.5x25.5mm M2

ESC

Current Sensor: YES

Telemetry: NO

Current:

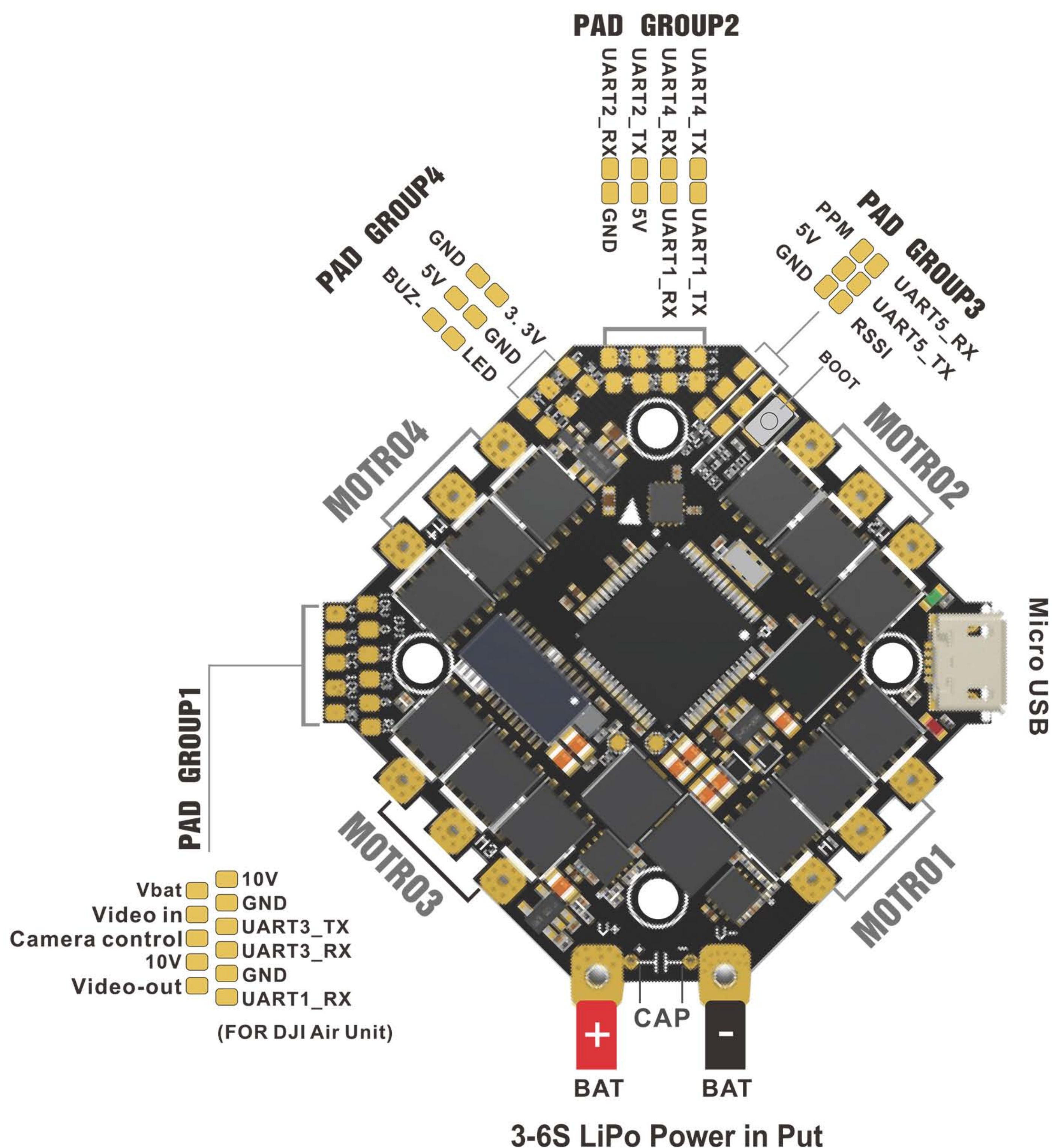
45A Version: 45A (Peak 55A)

60A Version: 60A (Peak 70A)

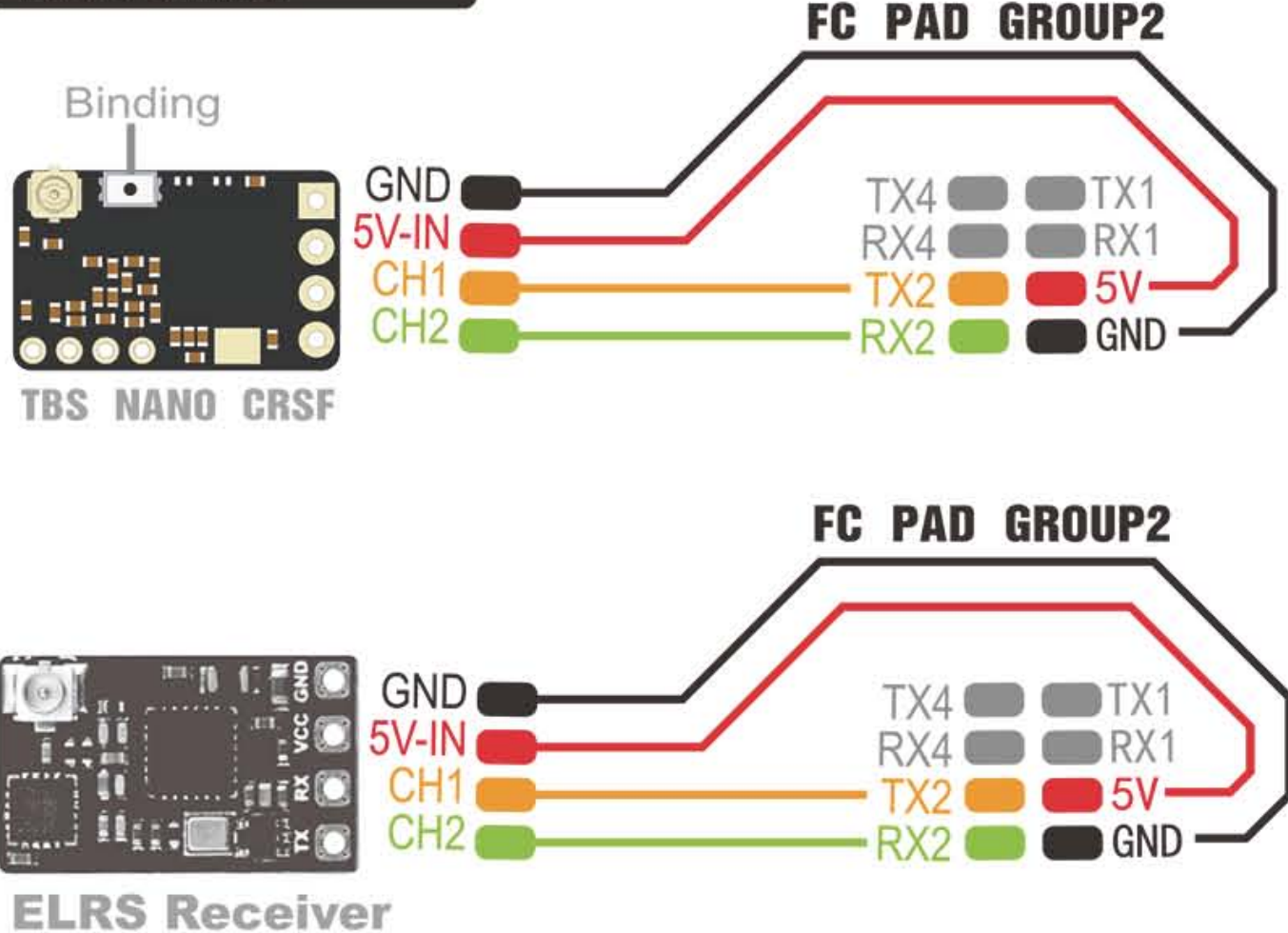
Amperage Meter Scale: 310

Firmware: BLHeli_S

Input: 3-6S



Receiver



Betaflight Configurator Setting

Identifier	Configuration/MSP	Serial Rx
USB VCP	☒ 115200	☐
UART1	☐ 115200	☐
UART2	☐ 115200	☒

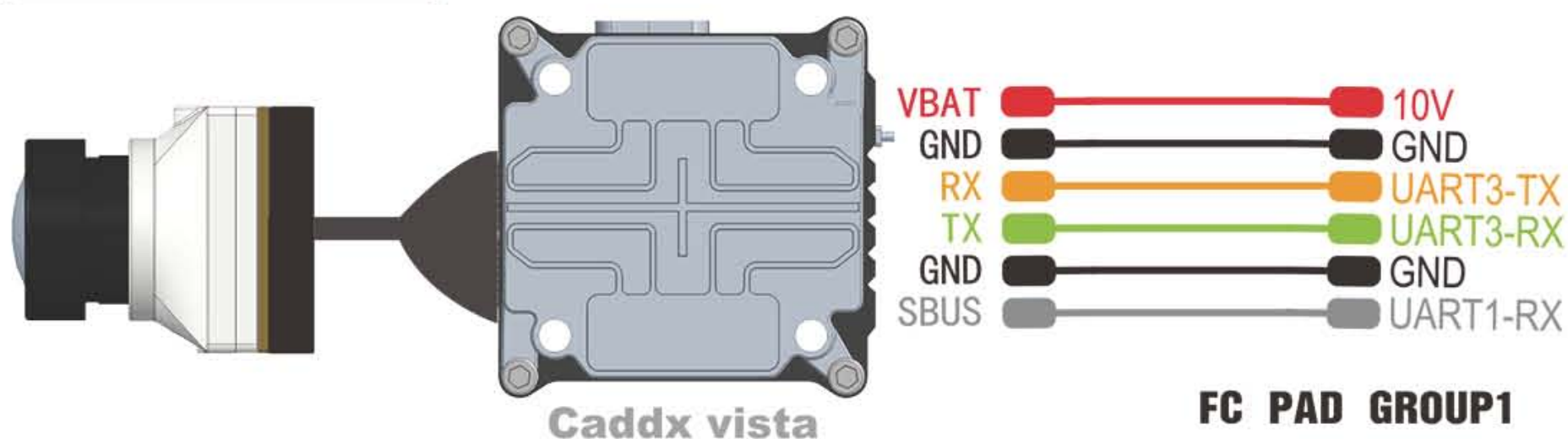
Receiver

Serial-based receiver (SPEKSAT,S Receiver Mode

Note: Remember to configure a Serial Port (via Ports tab) and choose a Serial Receiver Provider when using RX_SERIAL feature

CRSF Serial Receiver Provider

Vista Air Unit



Ports Setting in Betaflight Configurator for DJI Transmitter

Ports

Note: not all combinations are valid. When the flight controller firmware detects this the st
Note: Do NOT disable MSP on the first serial port unless you know what you are doing. Yo

Identifier	Configuration/MSP	Serial Rx
USB VCP	☒ 115200	☐
UART1	☐ 115200	☒
UART2	☐ 115200	☐
UART3	☒ 115200	☐

Receiver

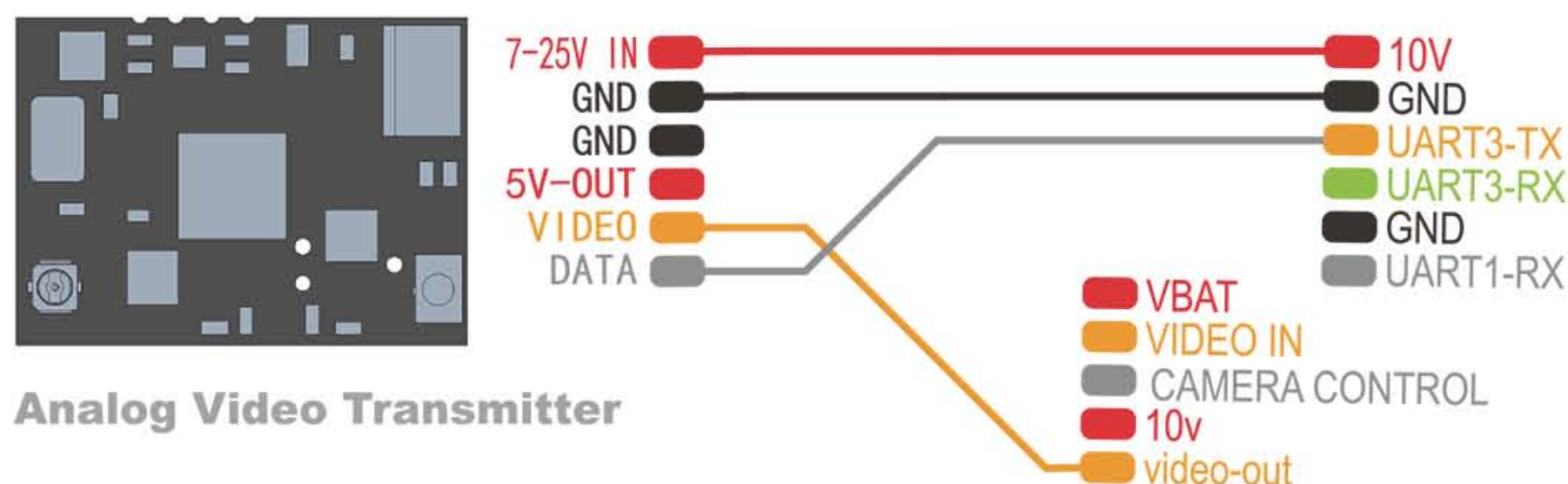
Serial-based receiver (SPEKSAT,S Receiver Mode

Note: Remember to configure a Serial Port (via Ports tab) and choose a Serial Receiver Provider when using RX_SERIAL feature

SBUS Serial Receiver Provider

Video Transmitter

FC PAD GROUP1



Betaflight Configurator Setting

Ports

Note: not all combinations are valid. When the flight controller firmware detects this the st
Note: Do NOT disable MSP on the first serial port unless you know what you are doing. Yo

WARNING: The VTX table has not been set up correctly and will not work

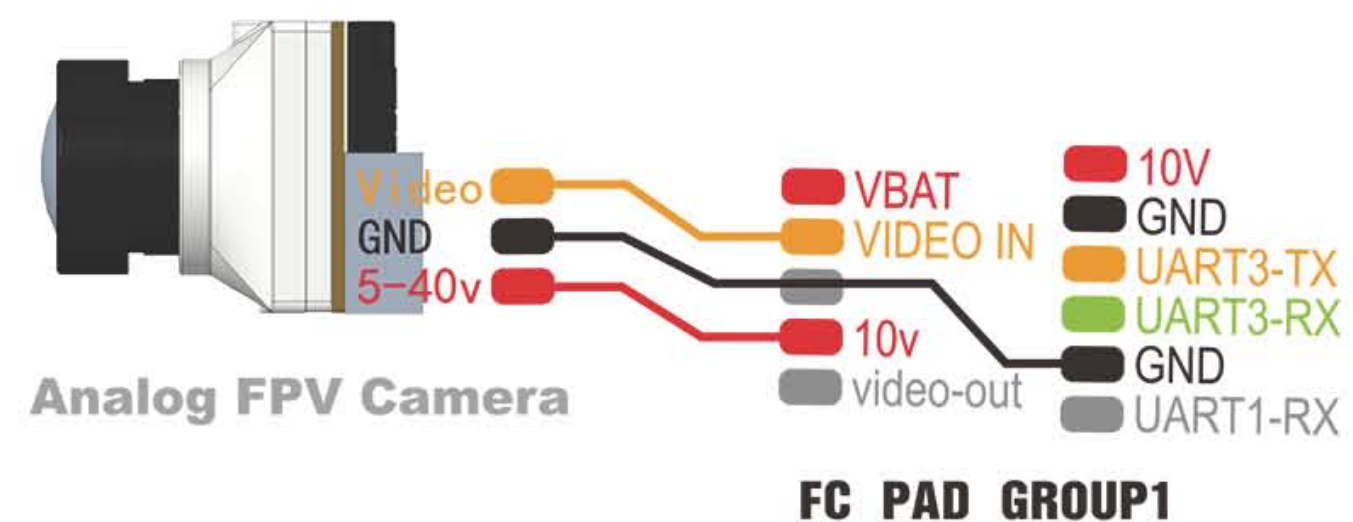
Identifier	Configuration/MSP	Peripherals
USB VCP	☒ 115200	Disabled AUTO
UART1	☐ 115200	Disabled AUTO
UART2	☐ 115200	Disabled AUTO
UART3	☐ 115200	VTX (TBS Smi) AUTO

Other Features

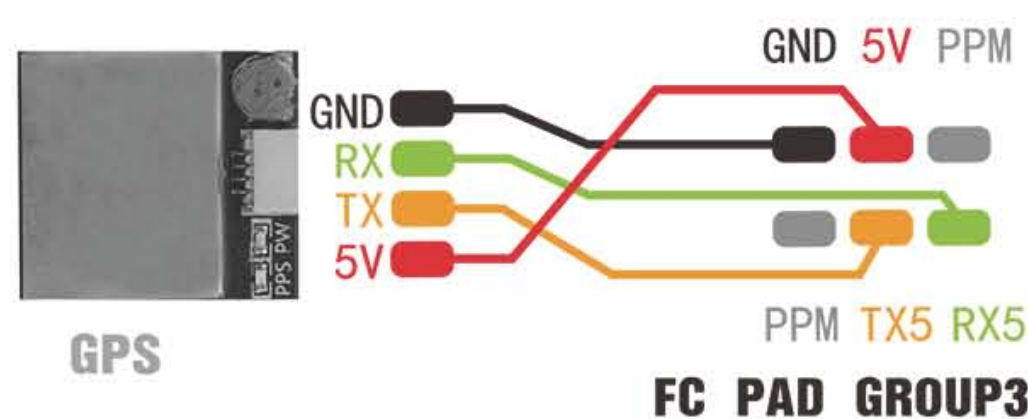
Note: Not all features are supported by it means that this feature is not support

INFLIGHT_ACC_CAL
SERVO_TILT
SOFTSERIAL
SONAR
TELEMETRY
LED_STRIP
DISPLAY
CHANNEL_FORWARDING
TRANSPONDER
AIRMODE
OSD

FPV Camera



GPS



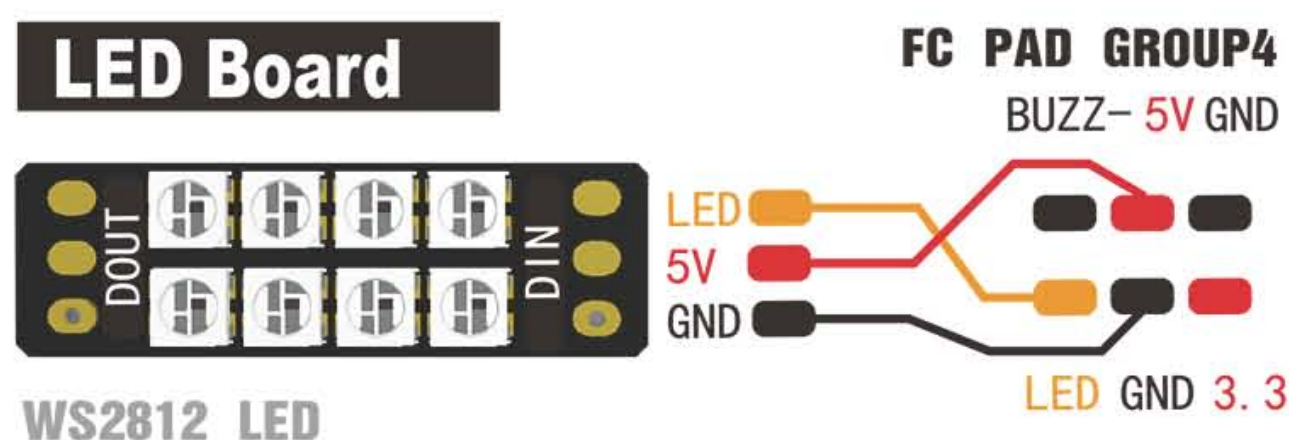
Configuration

GPS

Ports

Identifier	Sensor Input
USB VCP	Disabled AUTO
UART1	Disabled AUTO
UART2	Disabled AUTO
UART3	Disabled AUTO
UART4	Disabled AUTO
UART5	GPS AUTO

LED Board

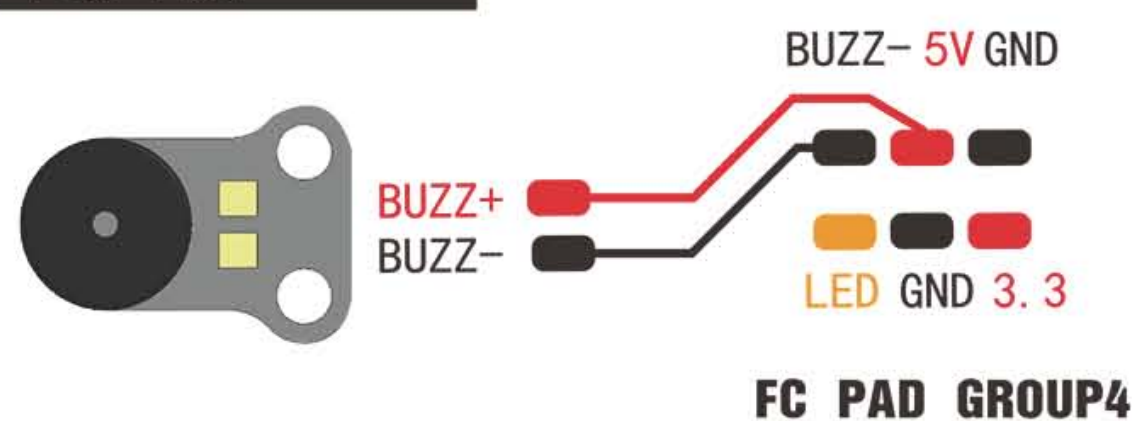


Other Features

Note: Not all features are supported by it means that this feature is not support

INFLIGHT_ACC_CAL
SERVO_TILT
SOFTSERIAL
SONAR
TELEMETRY
LED_STRIP

Buzzer



Modes

BEEPER AUX 3 Min: 1900 Max: 2100

Add Link
Add Range

Configuration

Beeper Configuration

GYRO_CALIBRATED
RX_LOST
RX_LOST_LANDING

Installing Flight Controllers&Motor

飞控 & 电机安装

Socket button head screw
半圆头内六角螺丝(M2x12)x4



Insulating Washer
绝缘垫片(M2x1.0)x4



Battery Strap
电池绑带 x1



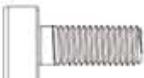
AIO Flight Controller



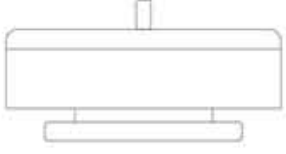
Rubber Dumper
减震柱(M2x5)x4



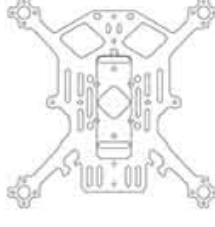
Socket screw
圆头内六角螺丝(M2x6)x16

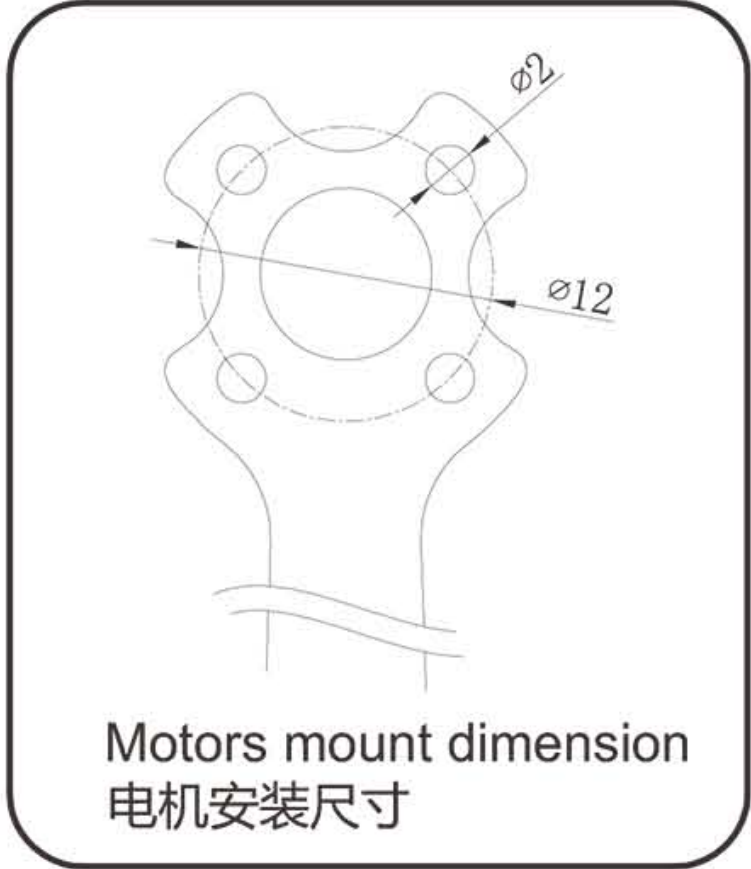
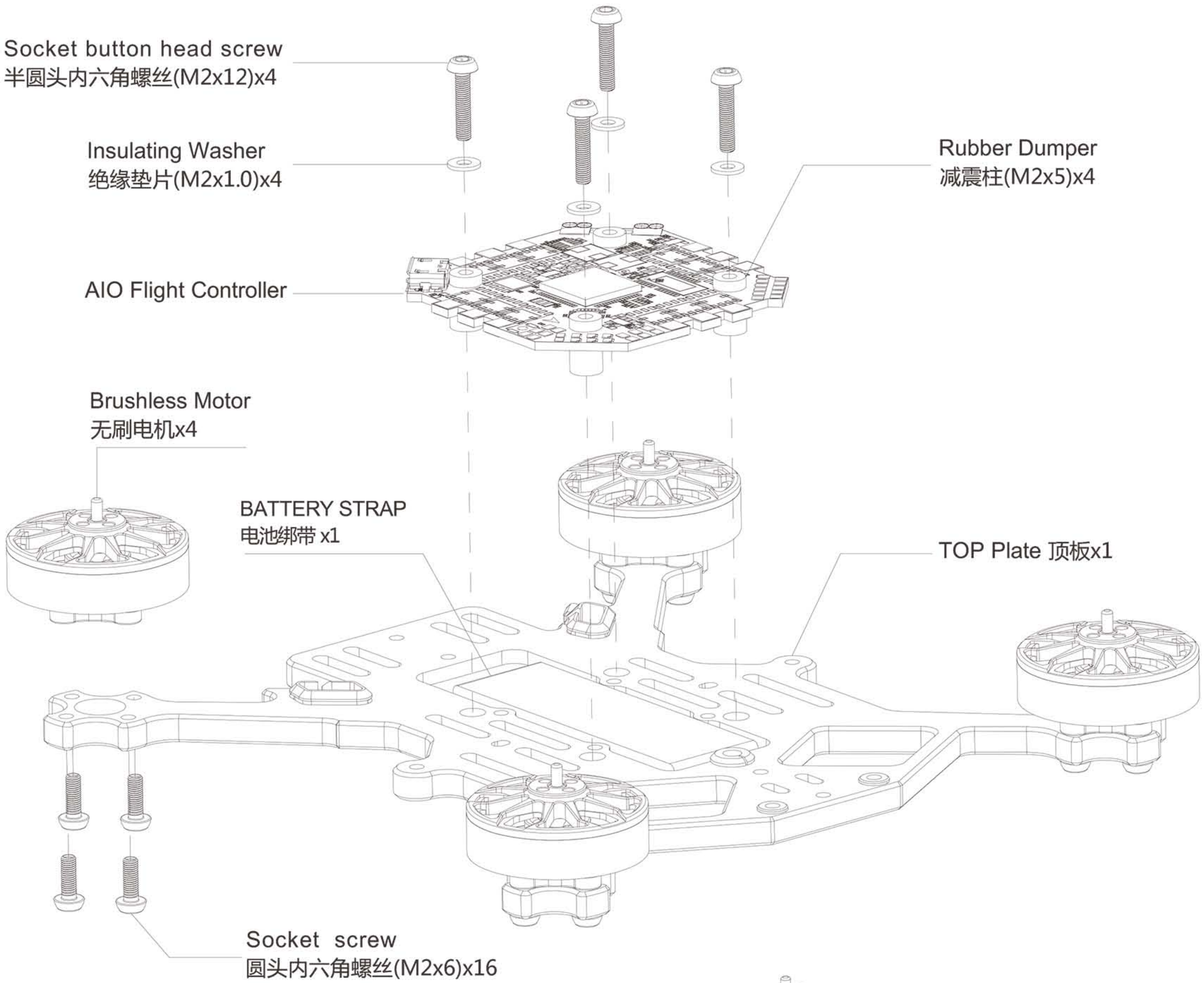


Brushless Motor
无刷电机x4



TOP Plate 顶板x1





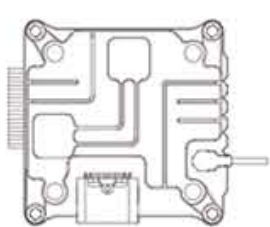
Installing The Video Transmitter

图传安装

Socket button head screw
半圆头内六角螺丝(M2x16)x4

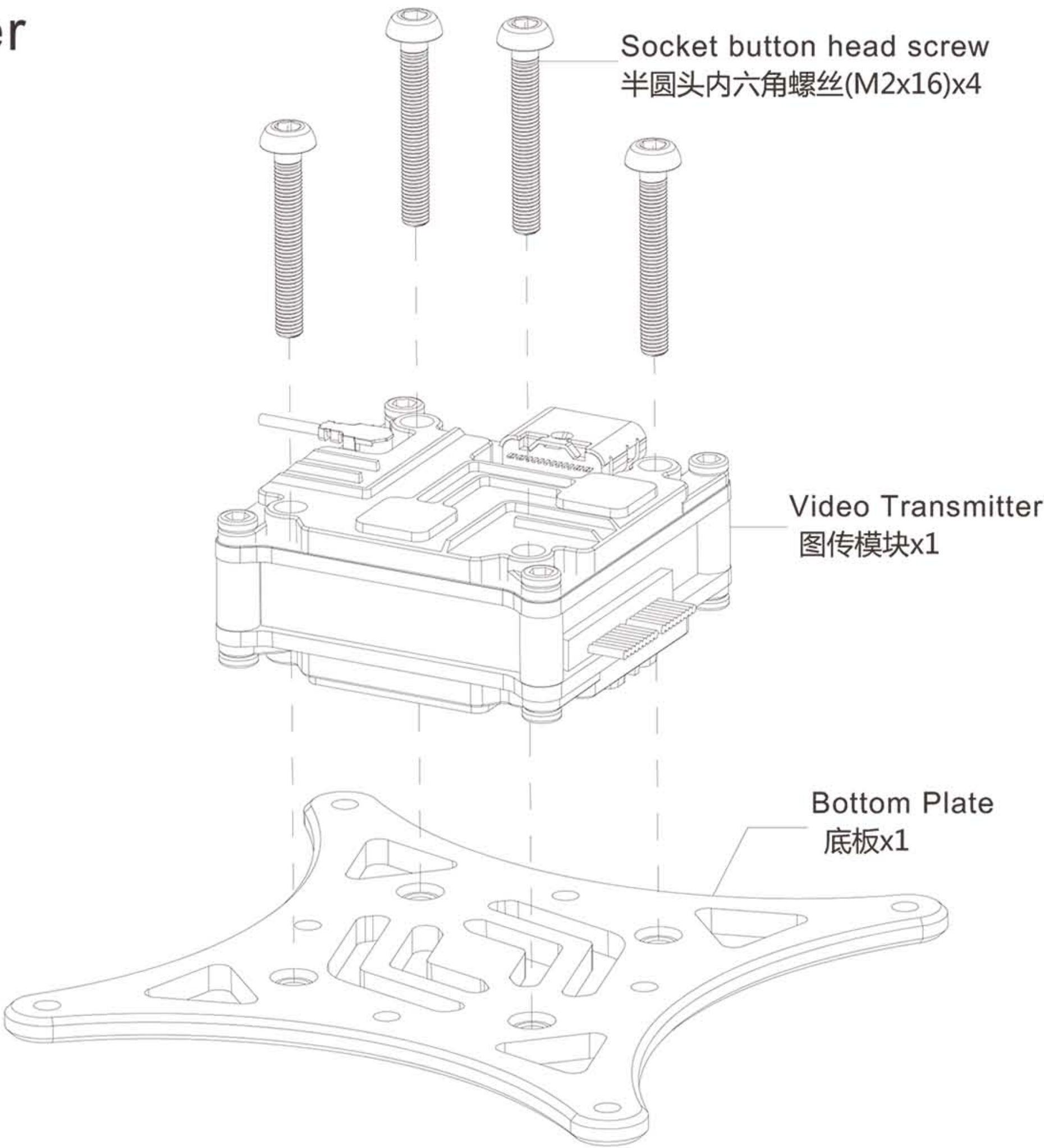


Video Transmitter
图传模块x1



Bottom Plate
底板x1





Installing the FPV Camera

摄像头安装

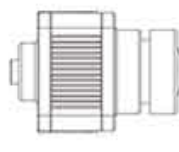
Collar Bolt Head Screws
半圆头内六角螺丝(M2x5)x2



Flanged Bushing
摄像头衬套

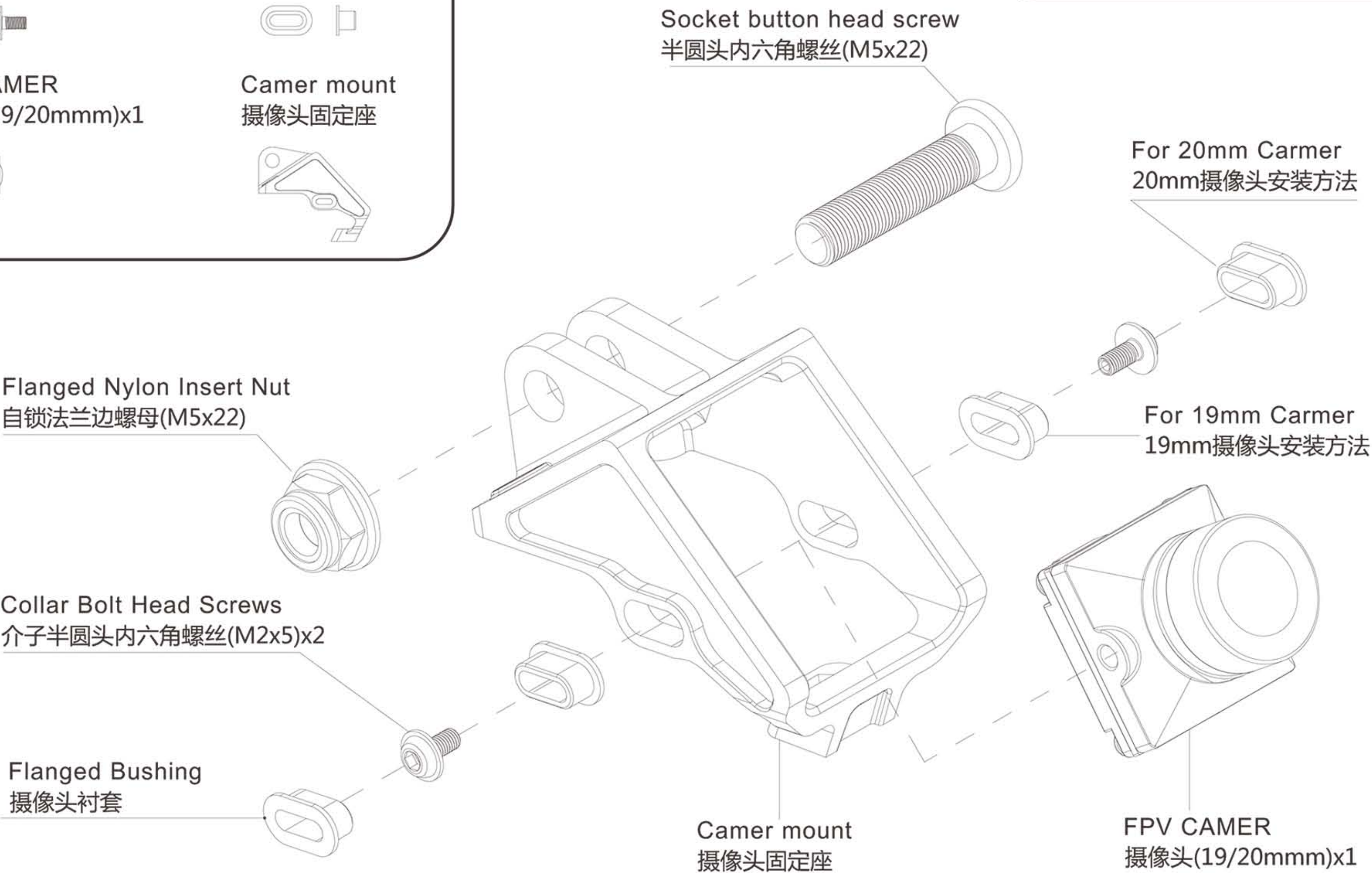
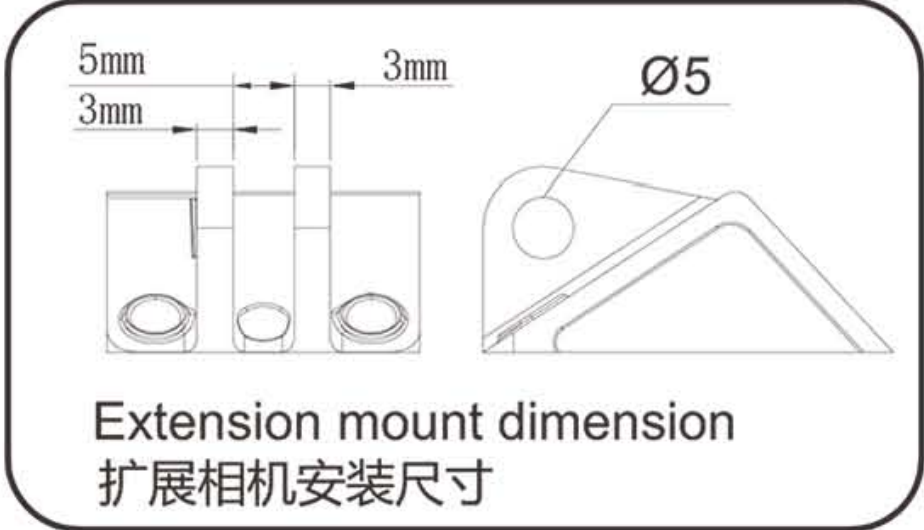


FPV CAMER
摄像头(19/20mm)x1



Camer mount
摄像头固定座

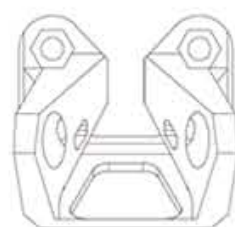




Socket screw
圆头内六角螺丝(M2x12)x1
圆头内六角螺丝(M2x8)x10
圆头内六角螺丝(M2x6)x8



RX&Antenna Mount
接收机&天线固定座



Standoff
铝柱 (M2X13) x1
铝柱 (M2X14) x4



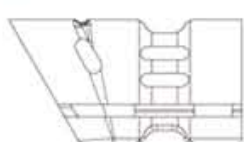
Washer
垫片 (M2X1.5) x4



Landing Skid
脚垫x4



VTX Antenna Mount
图传天线安装座



Completed Assembly 完整组装

RX&Antenna Mount
接收机&天线固定座

Socket screw(Options)
圆头内六角螺丝(M2x8)x4

915 Antenna Mount(Options)
915天线固定座x2(选装)

Socket screw
圆头内六角螺丝(M2x6) x5

Socket screw
圆头内六角螺丝(M2x8) x2

Standoff
铝柱 (M2X13) x1

VTX Antenna Mount
图传天线安装座

Socket screw
圆头内六角螺丝(M2x6) x2

FPV Camera ASSY
FPV相机总成

Top ASSY
顶板总成

Standoff
铝柱 (M2X13) x4

Prop Protective Ring
桨保护圈

Socket screw
圆头内六角螺丝(M2x12)

3D Printing Landing Skid
3D打印脚垫x4

Washer
垫片(M2x1.5)x4

Socket screw
圆头内六角螺丝(M2x8) x4

Socket screw
圆头内六角螺丝(M2x6)

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