

Installation steps

1. Bottom cover assembly



6 through joints connect to be bottom half ball

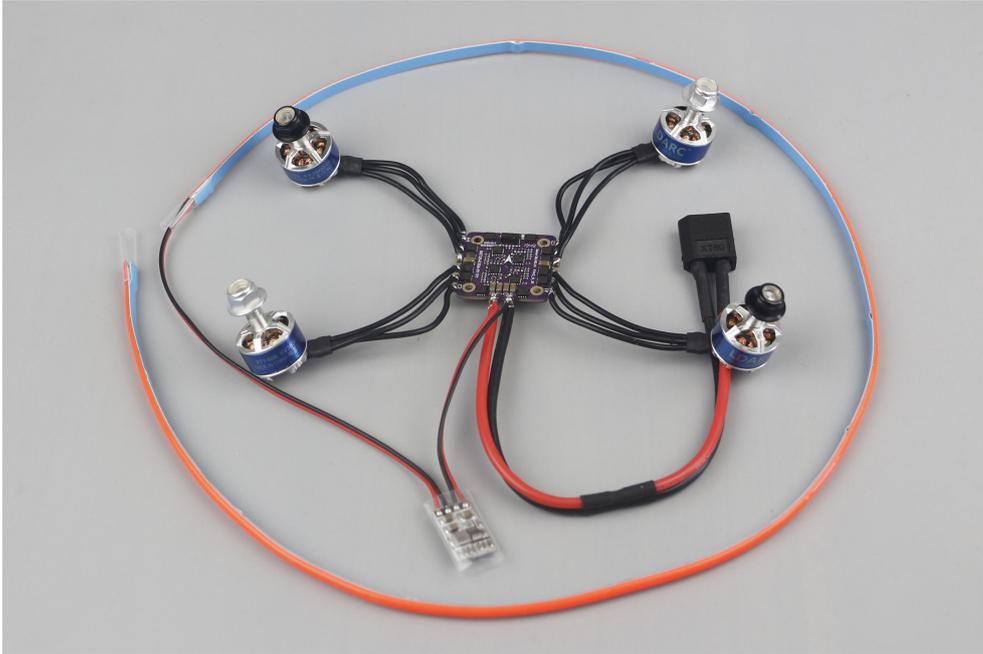
As shown in the figure, the battery panel and A-B block are assembled by fixing with M2*9 screws, and affixed with four single-sided buffer glue (130GT leftover pieces).

2. Frame installation



Flyball installation steps

3. Soldering



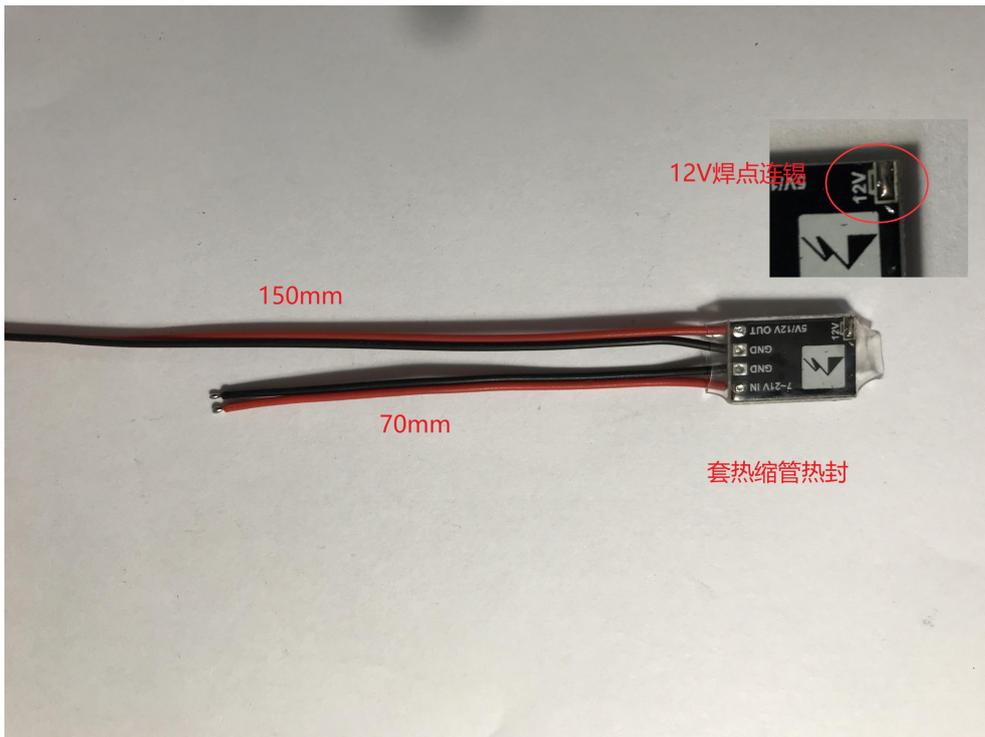
Flyball soldering

Connect the two sections of 16# power cord, weld XT60, and set the heat shrinkable tube for heat sealing



将300mm的红黑排线一分为二，两端加锡

Divided 300mm red&black line into two parts and added tin at both ends.



12V焊点连锡

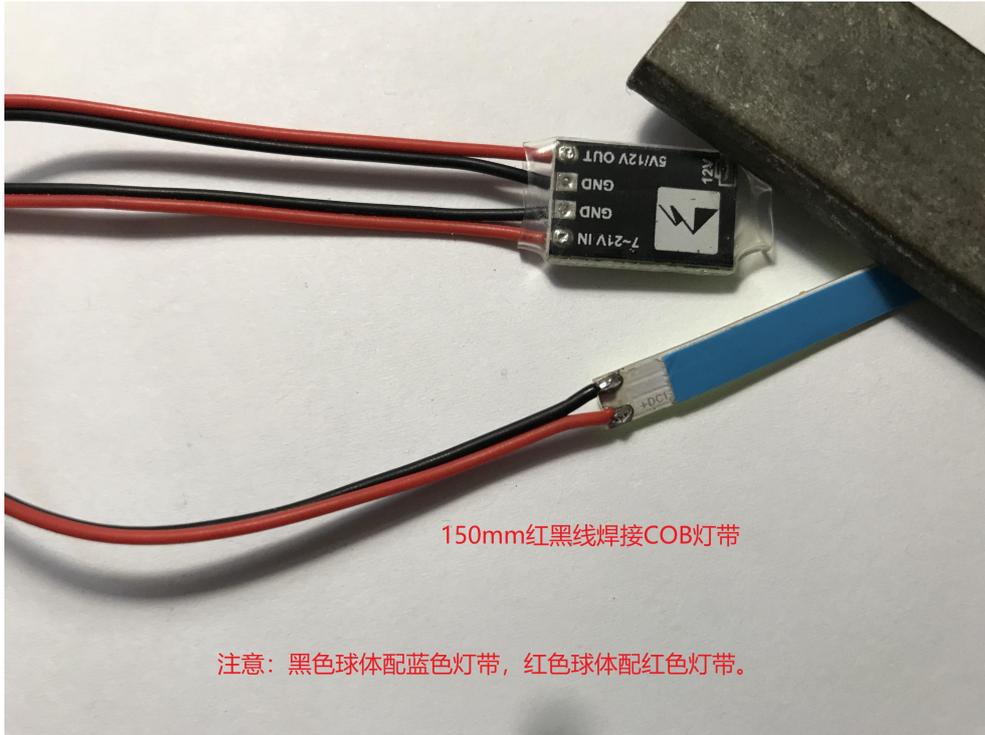
150mm

70mm

套热缩管热封

Tin added on 12V soldering joint

Set the heat shrinkable tube to heat seal

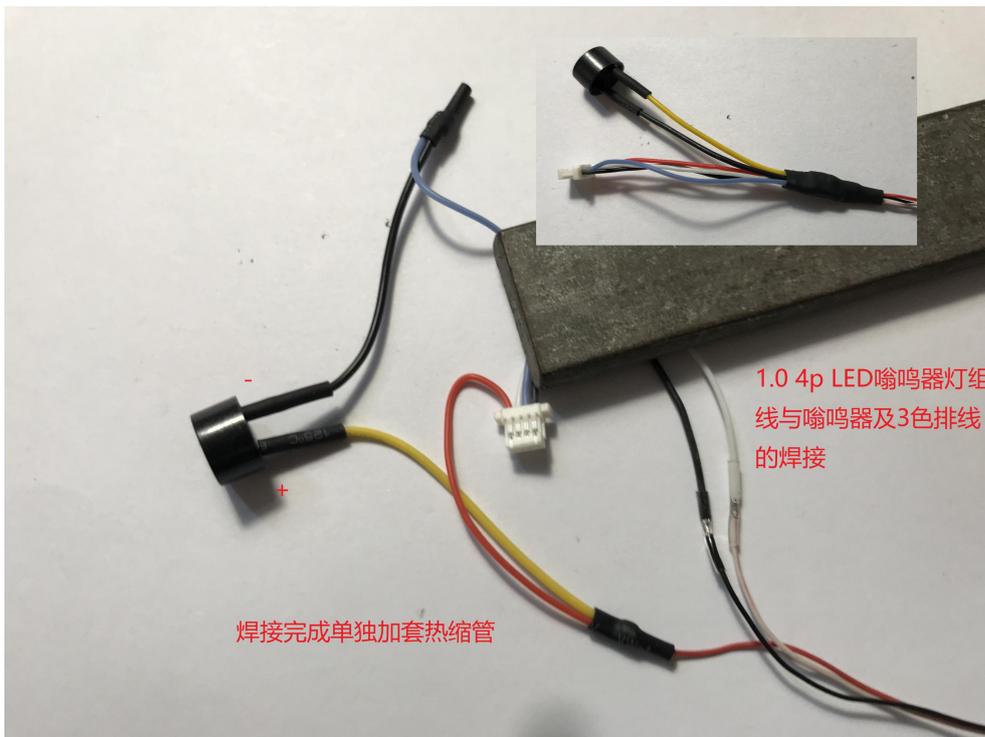


150mm红黑线焊接COB灯带

注意：黑色球体配蓝色灯带，红色球体配红色灯带。

150mm red and black wire welding COB lamp belt

Note: black ball with blue tape, red ball with red tape

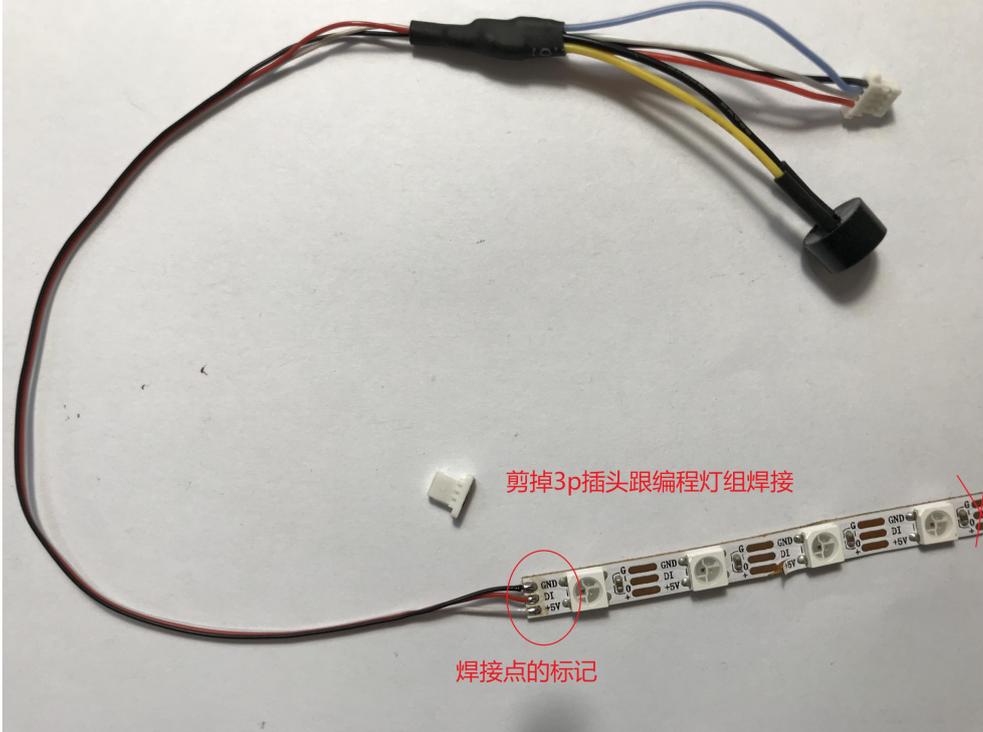
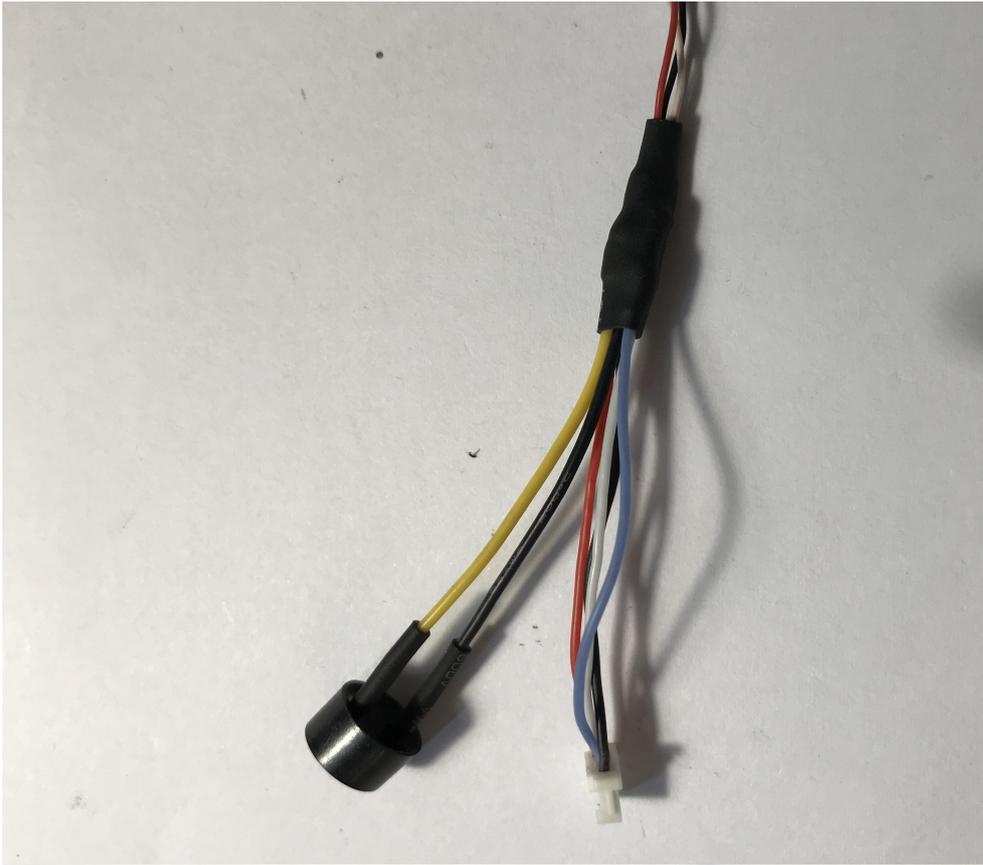


焊接完成单独加套热缩管

1.0 4p LED 喻鸣器灯组线与喻鸣器及3色排线的焊接

Welding of 1.4P LED hum assembly line and 3-color row line

Add heat shrinkable tube separately after welding

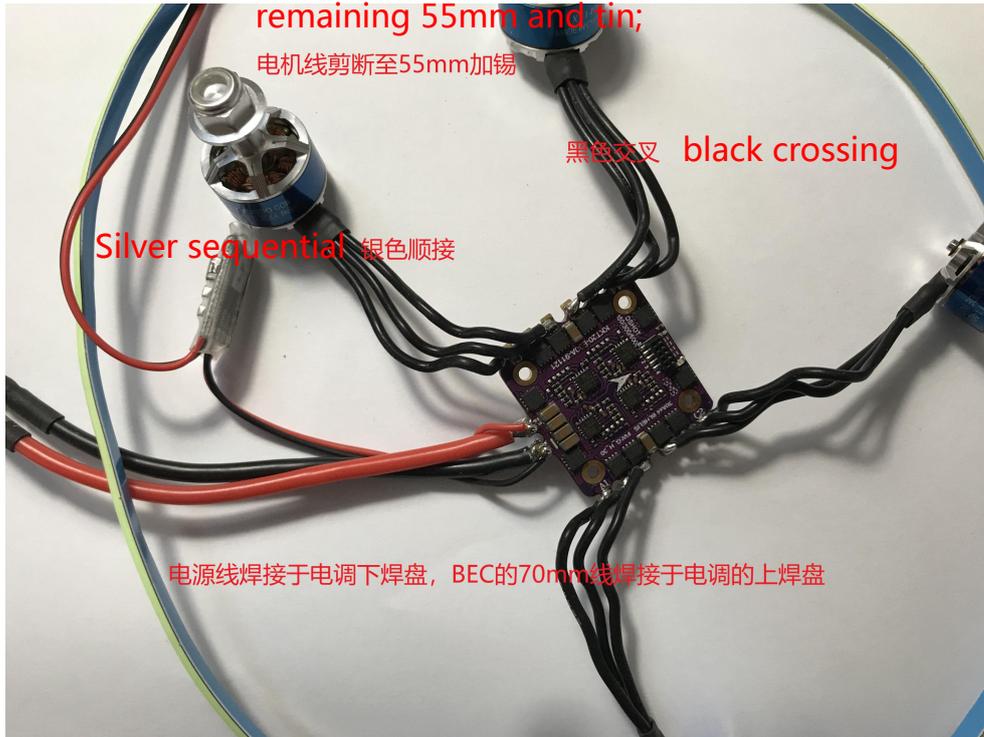


Cut off the 3P plug and solder it to the programming lamp

Marking of welding points

Cut the motor wire with remaining 55mm and tin;

电机线剪断至55mm加锡



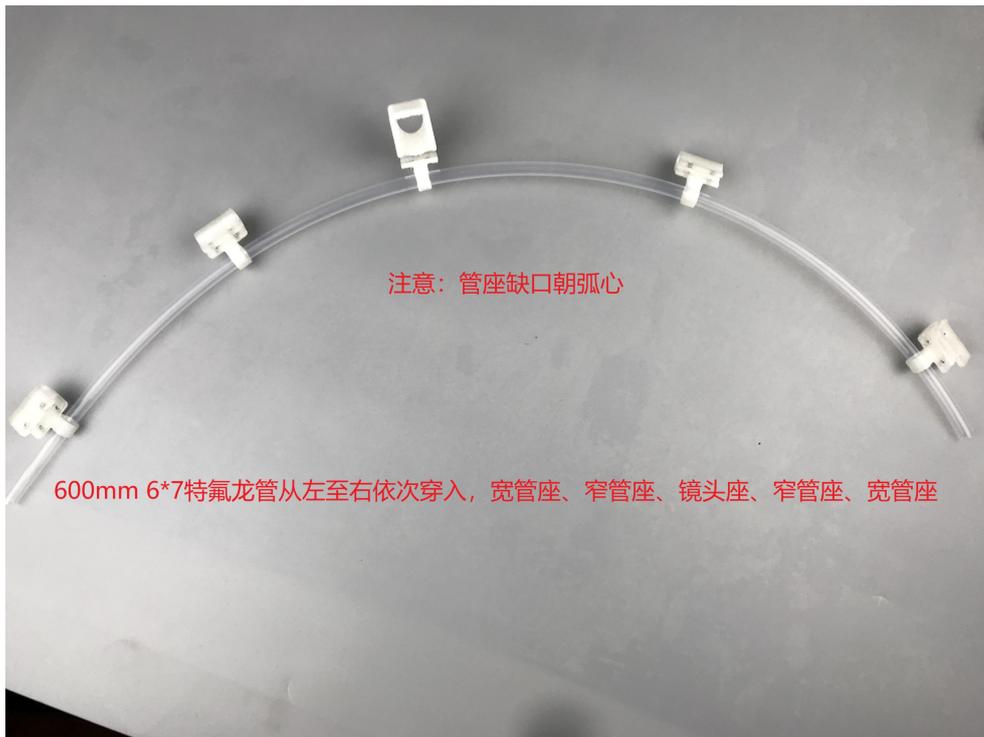
黑色交叉 black crossing

Silver sequential 银色顺接

电源线焊接于电调下焊盘，BEC的70mm线焊接于电调的上焊盘

The power cord is soldered to the lower pad of the ESC, and the BEC 70mm wire is soldered to the upper pad of the ESC

4. Casing, LED installation



注意：管座缺口朝弧心

600mm 6*7特氟龙管从左至右依次穿入，宽管座、窄管座、镜头座、窄管座、宽管座

Note: The notch of the tube seat faces to the arc center

600mm 6*7 Teflon tube passes through the wide tube seat, narrow tube seat, lens seat, narrow tube seat, and wide tube seat from left to right.

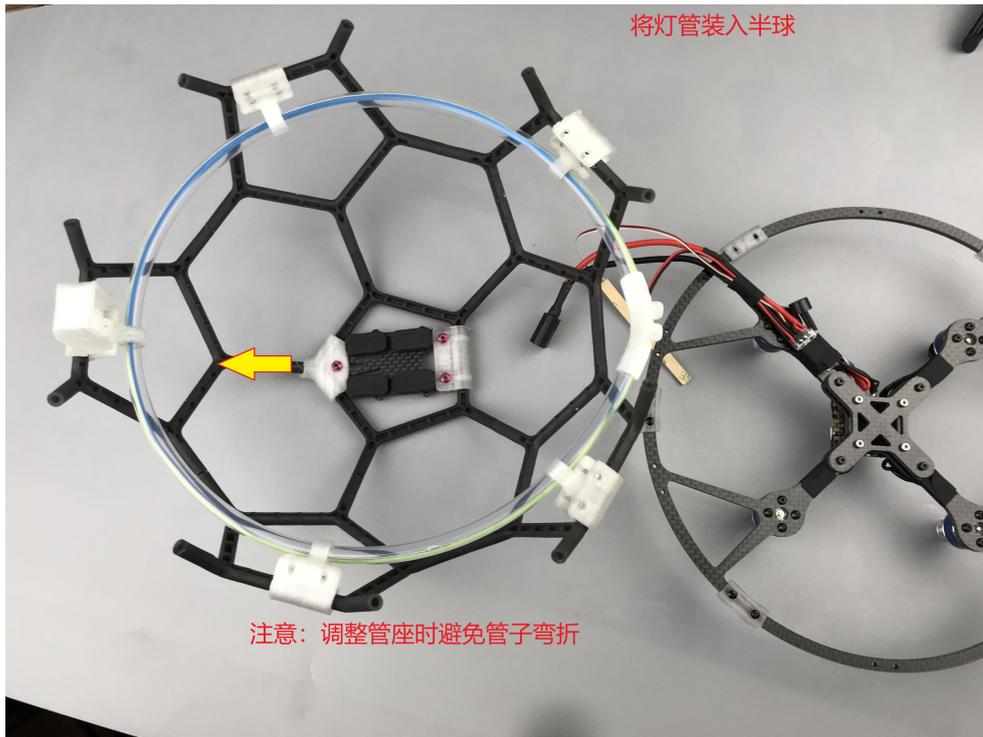


The COB lamp penetrates through the notch of the tail tube seat, exits from the right side of the tube seat, then penetrates the Teflon tube, and sets it into the tube seat.



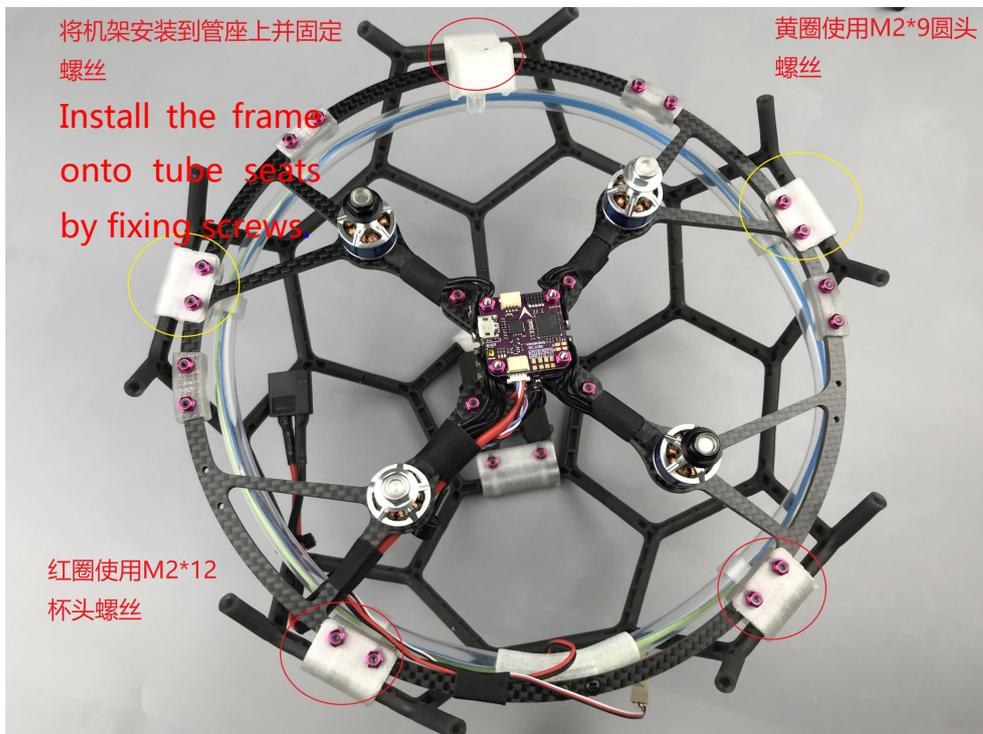
Insert the tube into the left side of the tube seat

5. Frame and protective installation



Assemble the COB lamp set onto the bottom half ball

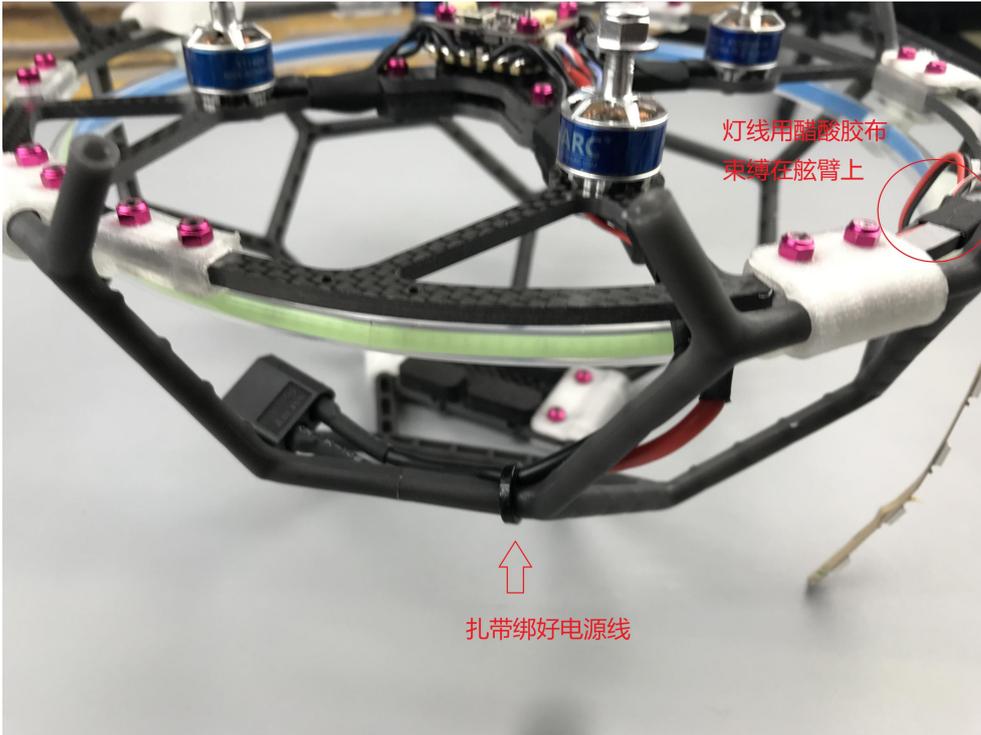
Note: Avoid bending the lamp tube when adjusting the tube seat



Install the frame onto tube seats by fixing screws

M2.9 round head screws were used on the yellow circle

M2*12 cup-head screws were used on the red circle



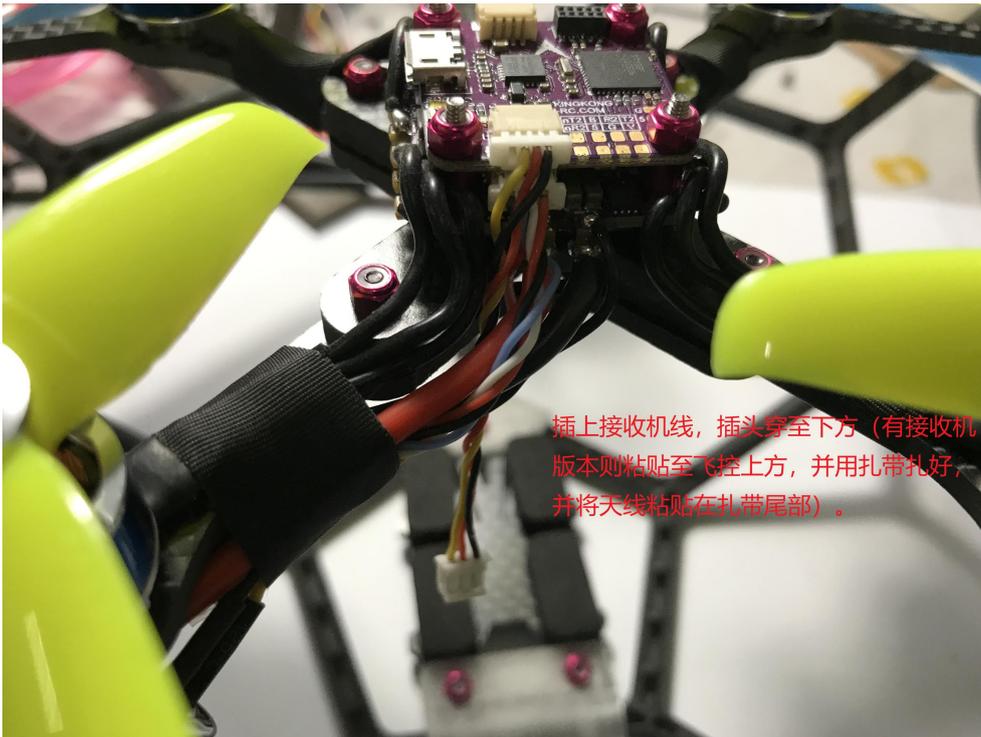
灯线用醋酸胶布
束缚在侧臂上

Use acetate tape to
tie the light cord to
the side arm

↑
扎带绑好电源线

Tie the power cord
with a cable tie

6. Connecting with receiver



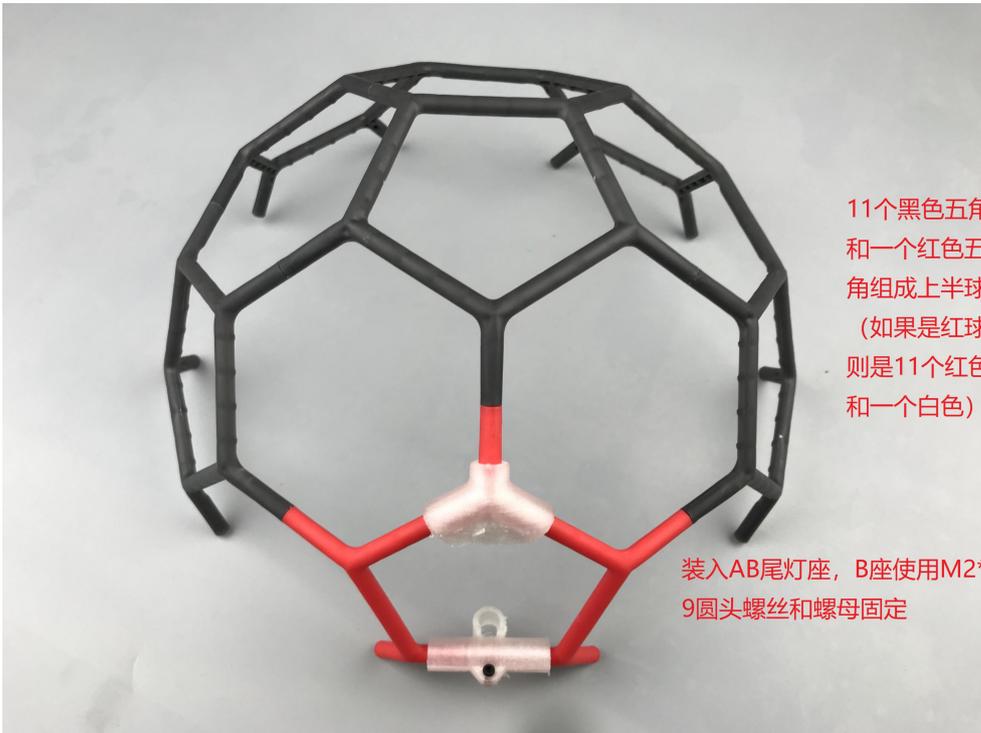
插上接收机线，插头穿至下方（有接收机
版本则粘贴至飞控上方，并用扎带扎好，
并将天线粘贴在扎带尾部）。

Plug in the receiver cable
and thread the plug to the
bottom (for the receiver
version, paste it on top of
the flight controller, tie it
with a cable tie, and paste
the antenna on the end of
the cable tie)

7. Install the propeller correctly, pay attention to the direction of rotation of the propeller, and sort out the connecting lines so that the rotation of the propeller should not be affected.



8. The installation of protective cover on upper flyball



11个黑色五角
和一个红色五
角组成上半球
(如果是红球
则是11个红色
和一个白色)

装入AB尾灯座, B座使用M2*
9圆头螺丝和螺母固定

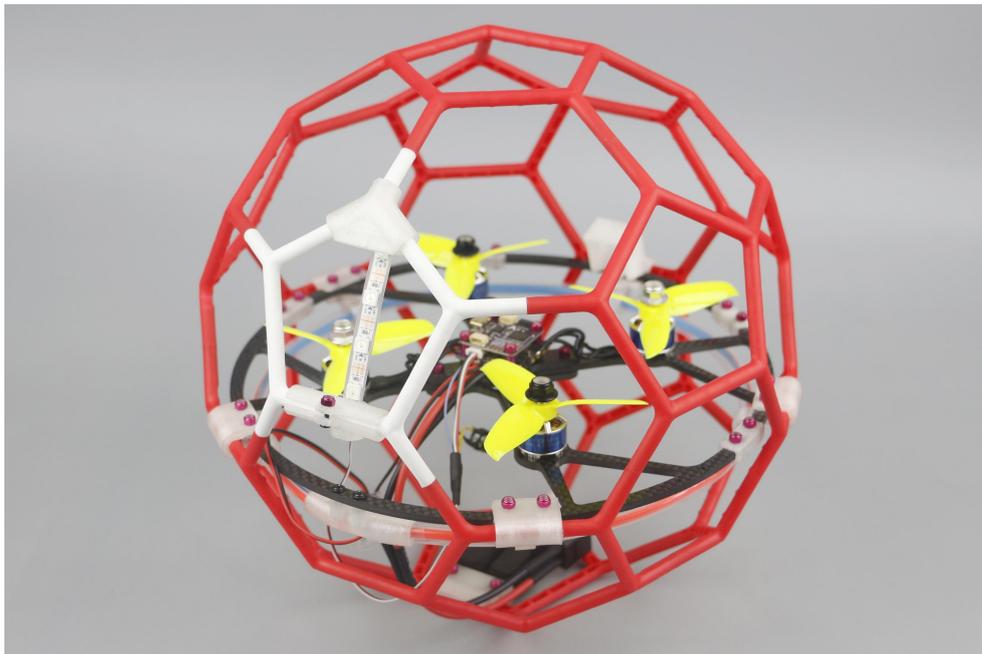
11 black pentagons and 1 red pentagon form the upper ball (if it is a red ball, then it is 11 red and 1 white)

Install the A-B tail lamp socket, and fix the B socket with M2*9 round head screws and nuts

9. Upper and lower protective cover, rear LED assembly

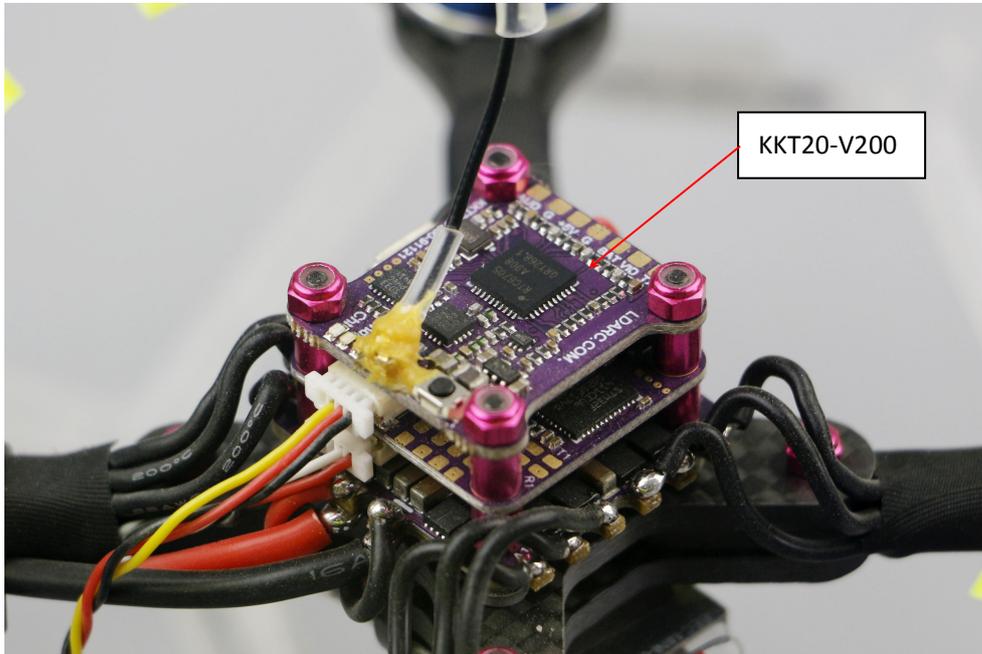


Thread the rear light into a 70mm Teflon tube, and then assemble it to the rear light holder



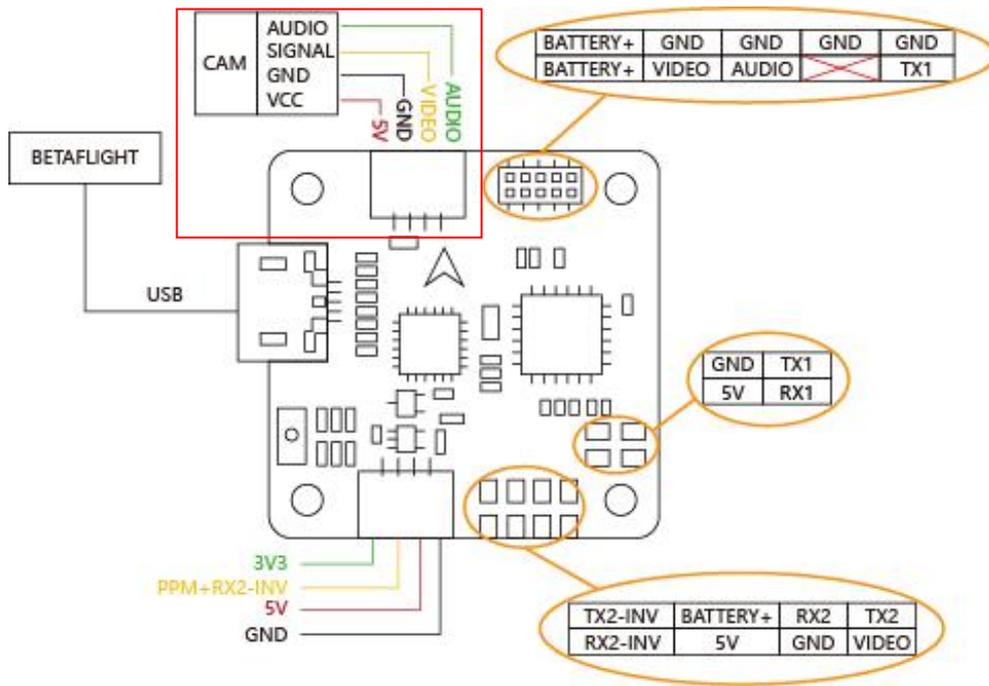
FPV UPGRATION

1. **Installation of VTX (KKT20-V200)** (replace the original fly Super_S F4 tower M2*25 screws with M2*30 screws), and use spacers and screws to assemble the VTX as shown in the figure below.



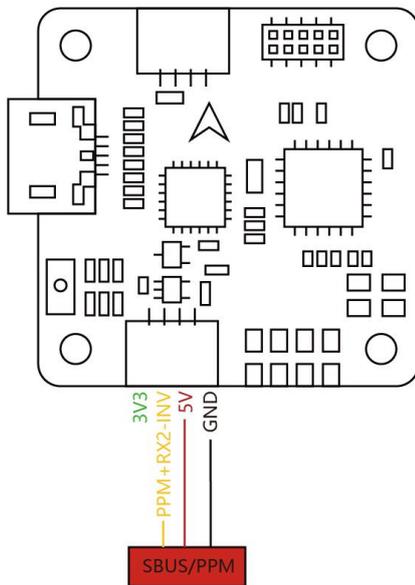
2. Install the camera (RunCam nano 2) with M2*3.5 screws, and mark the flight control port connected in a red frame.





RECEIVER CONNECT

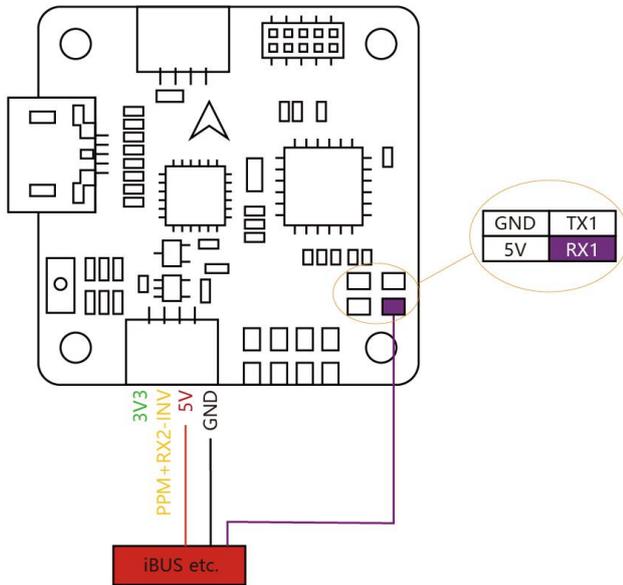
1. S.BUS and PPM receiver



Identifier	Configuration/MSP	Serial Rx	Telemetry Output
USB VCP	<input checked="" type="checkbox"/> 115200	<input type="checkbox"/>	Disabled AUTO
UART1	<input type="checkbox"/> 115200	<input type="checkbox"/>	Disabled AUTO
UART2	<input type="checkbox"/> 115200	<input checked="" type="checkbox"/>	Disabled AUTO

Receiver	
Serial-based receiver (SPEKSAT, S)	Receiver Mode
Note: Remember to configure a Serial Port (via Ports tab) and choose a Serial Receiver	
SBUS	Serial Receiver Provider

2. iBUS receiver



Identifier	Configuration/MSP	Serial Rx	Telemetry Output
USB VCP	<input checked="" type="checkbox"/> 115200	<input type="checkbox"/>	Disabled AUTO
UART1	<input type="checkbox"/> 115200	<input type="checkbox"/>	Disabled AUTO
UART2	<input type="checkbox"/> 115200	<input checked="" type="checkbox"/>	Disabled AUTO

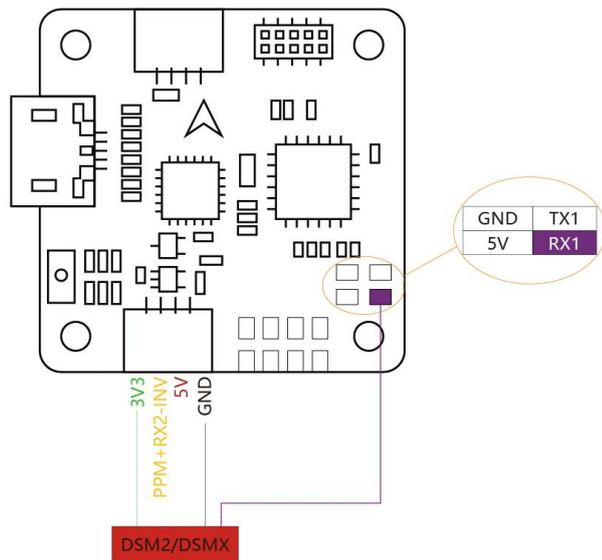
Receiver

Serial-based receiver (SPEKSAT, S) Receiver Mode

Note: Remember to configure a Serial Port (via Ports tab) and choose a Serial Receiver

CRSF Serial Receiver Provider

3. DSM2 and DSMX receiver



Identifier	Configuration/MSP	Serial Rx	Telemetry Output
USB VCP	<input checked="" type="checkbox"/> 115200	<input type="checkbox"/>	Disabled AUTO
UART1	<input type="checkbox"/> 115200	<input type="checkbox"/>	Disabled AUTO
UART2	<input type="checkbox"/> 115200	<input checked="" type="checkbox"/>	Disabled AUTO

Receiver

Serial-based receiver (SPEKSAT, S) Receiver Mode

Note: Remember to configure a Serial Port (via Ports tab) and choose a Serial Receiver

SPEKTRUM1024 Serial Receiver Provider

SPEKTRUM1024

SPEKTRUM2048

BETAFLIGHT

Please go to the Google App Store to download and install the BETAFLIGHT Assistant Software

The screenshot displays the Betaflight website interface. At the top, there is a navigation bar with the Betaflight logo and version number (10.4.0) on the left, and connection settings (COM1, 115200) and a '连接' (Connect) button on the right. Below the navigation bar is a sidebar menu with options like '欢迎' (Welcome), '设置文档 & 支持' (Settings, Docs & Support), and '固件烧写工具' (Firmware Flashing Tool). The main content area features the Betaflight logo and a welcome message: '欢迎使用Betaflight - 配置程序, 为简化固件升级, 设置和调校飞控而生的工具。' (Welcome to use Betaflight - Configuration Program, a tool designed to simplify firmware upgrades, settings, and tuning of flight controllers). The main content is divided into three columns: '硬件' (Hardware) with links to download the Blackbox log viewer and firmware, '参与开发' (Participate in Development) with instructions on how to help improve the software, and '开源/捐赠说明' (Open Source/Donation Statement) with a 'Donate' button. The footer contains status information: '端口利用率: 下行: 0% 上行: 0%' (Port Utilization: Down: 0% Up: 0%), '数据包接收: 0' (Data Packets Received: 0), 'I2C 错误: 0' (I2C Errors: 0), '循环时间: 0' (Loop Time: 0), and '配置程序: 10.4.0' (Configuration Program: 10.4.0).