

LiteRadio 3 Pro Radio Transmitter

The LiteRadio 3 Pro is a remote control that supports EdgeTX system. Since its release in 2020, the BETA FPV LiteRadio series remote control has been loved by many RC model players. As a handle remote control, the LiteRadio 3 Pro has expanded its functions to meet the needs of more model enthusiasts.

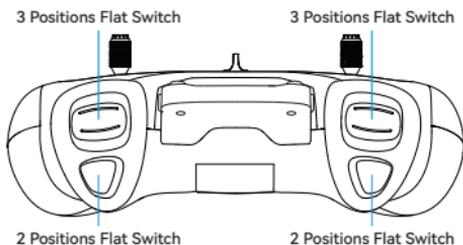
LiteRadio 3 Pro as a new member of this series, has the following characteristics.

- Hall Joystick
- Support 8 Channels
- The default system is EdgeTX system.
- 1.3 inch OLED display screen
- Support external Nano Module
- Built-in 2000mAh battery, support USB charging
- USB Joystick mode supports most model simulators
- Built-in TX module support various protocols such as ExpressLRS 2.4G/CC2500 version.

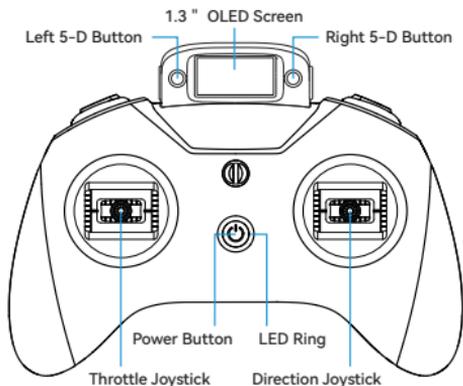
1. Overview

Diagrams of the LiteRadio 3 Pro are as below.

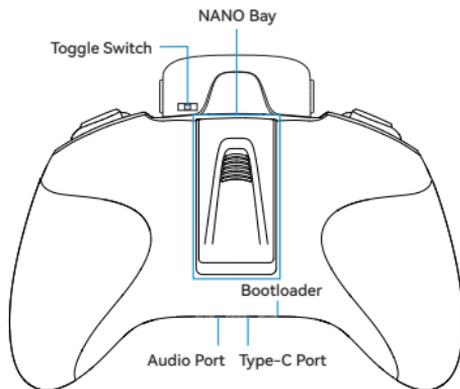
Top view:



Front view:



Back view:



- **Power Button:** Long press to turn on/off.
- **Bootloader Button:** Turn off the radio transmitter. Press the Bootloader button and Power button, release at the same time, switch on to enter the Bootloader interface.
- **Toggle Switch:** Toggle to activate the fine-tuning function of the remote control joystick.
- **Left 5-D Button:** Toggle the button up/down/left/right to fine-tune the joystick. Press the button to exit/return to the page.
- **Right 5-D Button:** Toggle the button up/down/left/right to select and move. Press the button to confirm/enter.

2. LED Status and Sound Mode

- The status of the LED light described with the remote control status.

LED Status	Status Description	Operation Description
Green light solid on	Booting	Press and hold the power button till turn on
Red light solid on	Throttle joystick or switches is not on the lowest	Press any key to skip or both the joystick and the key are hit to the lowest position
Blue light solid on	Working	
Red light solid on when turning off	On charging	
Red light off when turning off	Charge complete	

- The remote can be set up to Sound/Vibration/Silent Mode; the default mode is Sound+Vibration.

3. Interface and Operation

- **Boot Tips:**

Power on and enter the operation interface of the system. If the channel switch is not at the lowest position, the remote control will show an abnormal channel warning. Follow the prompt "Press any key to skip", press any 5-D button to skip, or adjust the channel status to the lowest position to enter the next page.

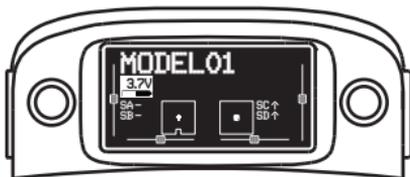


If the remote control is not fully charged, the screen interface will warn "RTC Battery low", press any 5-D button according to the prompt "Press any Key" to enter the next page.



- **Default Interface**

After skipping the warning interface, the remote control enters the default interface. To switch to the default interface, push the right side 5-D button up/down.

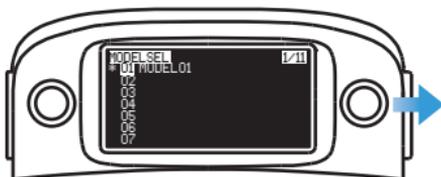


• Setting Mode:

1. Enter the mode.

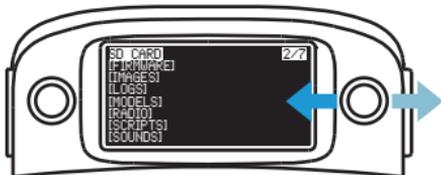


Push the right 5-D button to the left for 1 second to enter the tool setting mode



Push the right 5-D button to the right for 1 second to enter the setting mode

2. Switching the setting page.



Move the right 5-D button left/right to switch to another setting page

3. Exit setting mode.



Short press the left side 5-D button to exit the setting mode and return to the default interface

- Radio Transmitter Setting and Binding (ELRS 2.4G version)

Confirm the built-in protocol: It's ELRS version when the sticker in nano module bay shows "ExpressLRS".

1. These settings are required when using the internal ELRS TX module, shown as below.

Set External RF to OFF, and turn Internal RF on and select CRSF protocol.

```
SETUP 2/11
Glob.Funcs [X]
Internal RF
Mode CRSF
Ch. Range CH1-16
Receiver 00
External RF
Mode OFF
```

```
SETUP 2/11
Glob.Funcs [X]
Internal RF
Mode CRSF
Ch. Range CH1-16
Receiver 00
External RF
Mode OFF
```

Binding: Enter the ExpressLRS.lua interface, select Bind to do the linking.

```
BETAFPV 2400TX 0/250 -
> TX Power
> VTX Administrator
> WiFi Connectivity
[BLE Joystick]
[Bind]
2.2.0 ISM2G4 442a9d
```

2. These settings are required when installing and using the external TX module, shown as below.

Turn on External RF and select the correct protocol based on the external module, set Internal RF to OFF.

```
SETUP 2/11
Mode OFF
External RF
Mode CRSF
Ch. Range CH1-16
Receiver 00
Trainer
Mode Master/Jack
```

Binding: Based on the module manual to do the linking.

- Radio Transmitter Setting and Binding (CC2500 version)

Confirm the built-in protocol: It's CC2500 version when the sticker in nano module bay shows "CC2500".

1. These settings are required when using the internal CC2500 TX module, shown as below.

Turn External RF option OFF. Turn on the Internal RF and select the corresponding protocol under MULTI mode.

SETUP		2/11
No Telem	<input type="checkbox"/>	
No Ch. map	<input type="checkbox"/>	
Low Power	<input type="checkbox"/>	
External RF		
Mode	OFF	
Trainer		
Mode	Master/Jack	

SETUP		2/11
Mode	MULTI	
Type	FrSky	
Subtype	D16	
Status	No telemetry	
Ch. Range	CH1-16	
Receiver	00 [Bnd] [Rns]	
Freq tune	0 RSSI(0)	

Binding: Enter the setup of mode interface, select Bind to do the linking.

SETUP		2/11
Mode	MULTI	
Type	FrSky	
Subtype	D16	
Status	No telemetry	
Ch. Range	CH1-16	
Receiver	00 [Bnd] [Rns]	
Freq tune	0 RSSI(0)	

2. These settings are required when installing and using the external TX module, shown as below.

Turn on External RF and select the correct protocol based on the external module, then set Internal RF to OFF option.

SETUP		2/11
Mode	OFF	
External RF		
Mode	CRSF	
Ch. Range	CH1-16	
Receiver	00	
Trainer		
Mode	Master/Jack	

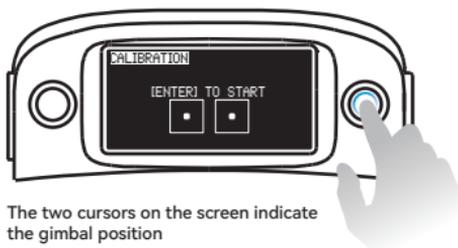
Binding: For binding of the transmitter module, please refer to its manual to complete the binding process..

4. Gimbal Calibration

First step: Enter calibration mode.

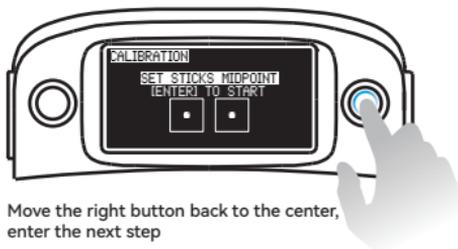


Move the right button to the left, enter setting mode and select "Calibration" for Gimbal Calibration

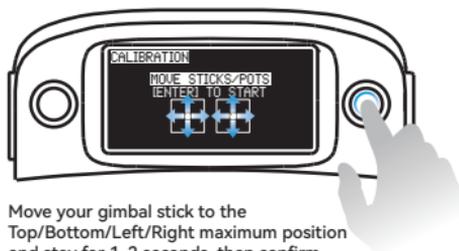


The two cursors on the screen indicate the gimbal position

Second Step: Complete the calibration with prompts.



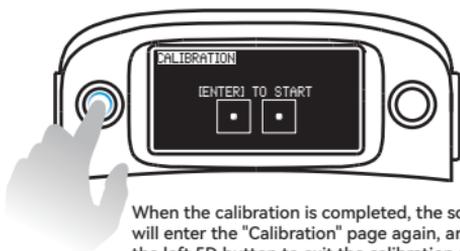
Move the right button back to the center, enter the next step



Move your gimbal stick to the Top/Bottom/Left/Right maximum position and stay for 1-2 seconds, then confirm to end calibration

Note: Do not use too much force during the calibration process, so as not to affect the calibration accuracy, please move the joystick slightly during the calibration process.

Third Steps: Exit calibration mode.

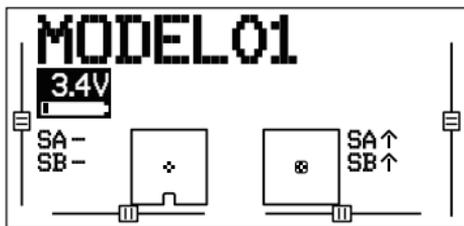


When the calibration is completed, the screen will enter the "Calibration" page again, and press the left 5D button to exit the calibration page

5. Low Battery Alert and Charging

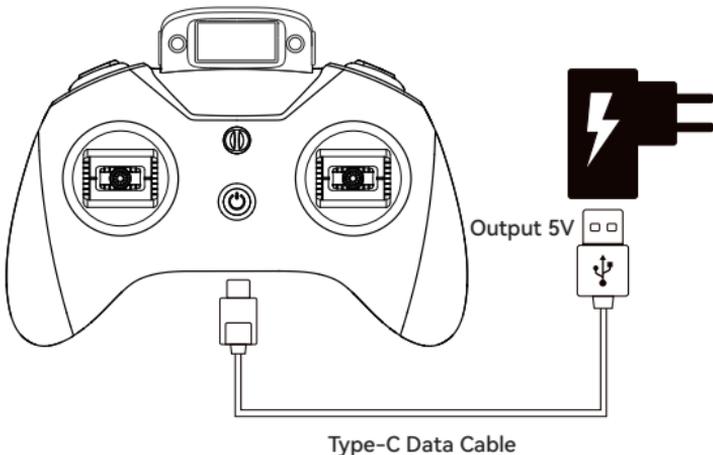
LiteRadio 3 Pro radio transmitter has a built-in 2000mAh battery, therefore, there is no need for an external battery. The normal voltage of battery is 4.2V-3.4V. The screen will display the battery voltage in real-time.

When the battery voltage is less than 3.4V, the radio transmitter's low-voltage alarm will be triggered: the battery icon on the screen flashes with the buzzer vibration and the speaker emits a "dididi" sound. Please turn it off in time to recharge it.



Charging procedures are as below for reference:

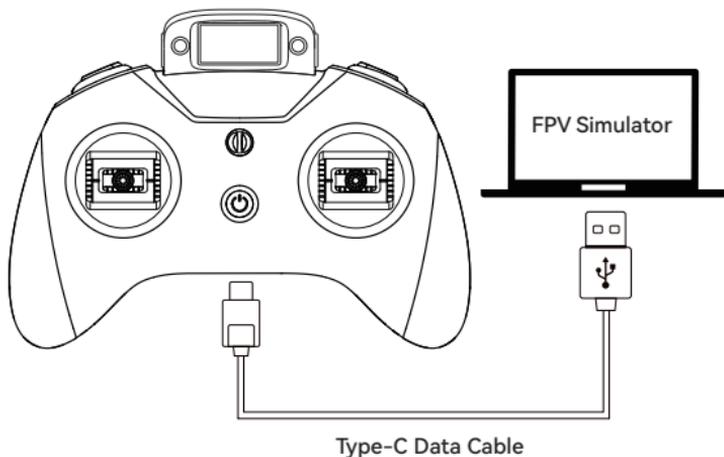
- Turn off the radio transmitter;
- Plug the USB cable with adapter into the remote control radio transmitter (5V output adapter is allowed);
- LED ring displaying red indicates that the remote is charging. The LED ring turning off means the remote is fully charged.



The continuous working time for a fully charged battery is about 15 hours (100mW transmit power);
Turning off a fully charged radio, the battery capacity can be kept at about 80% for 30 days.

6. HID Joystick

When LiteRadio 3 Pro connected to PC, it can be used as a USB gamepad and practice model simulators. Specific steps:



- Turn on the radio transmitter;
- Connect the transmitter to the computer via USB data cable. The LED indicator will turn green when the radio transmitter is fully charged, and turns red when it is out of power;
- The prompt of the radio transmitter will be popped up, please kindly choose "USB Joystick (HID)";
- The PC will automatically install the driver. After the driver is installed successfully, a prompt will be popped up, indicating that the computer has successfully recognized the radio transmitter and can use it normally.

Other devices



BETA FPV LiteRadio3 Pro Joystick

Users need to manually install a driver if the PC doesn't install automatically or is installed incorrectly.

Note: When the remote is turned off and connected to the computer, there is no signal output from the USB port, and the Joystick function cannot be used.

7. More Information

Please contact us on BETA FPV website (Technical Support-> Radio Transmitter) for more information: Common problems, Newest instruction, etc.

<https://support.betafpv.com/hc/en-us>

Refresh the ELRS firmware:

<https://github.com/ExpressLRS/ExpressLRS-Configurator>

Refresh the CC2500 firmware:

<https://github.com/pascallanger/DIY-Multiprotocol-TX-Module>

- How to upgrade the firmware.
- How to create a radio transmitter model.

LiteRadio 3 Pro遥控器是一款支持EdgeTX系统的遥控器。BETA FPV LiteRadio系列遥控器从2020年发布以来，深受广大模型爱好者喜爱。LiteRadio 3 Pro遥控器作为一款手柄遥控器，在功能上做了更大的扩展，能够满足更多的模型爱好者的使用需求。

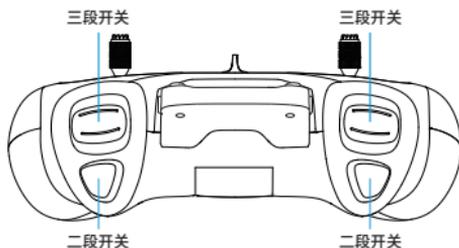
LiteRadio 3 Pro作为该系列中新的成员，它具备了以下特点。

- 霍尔摇杆
- 支持8通道
- 默认EdgeTX系统
- 1.3寸OLED显示屏
- 支持外接Nano高频头扩展
- 内置2000mAh电池，支持USB充电
- USB Joystick模式支持绝大部分模型模拟器
- 内置高频头提供ExpressLRS 2.4G/CC2500版本

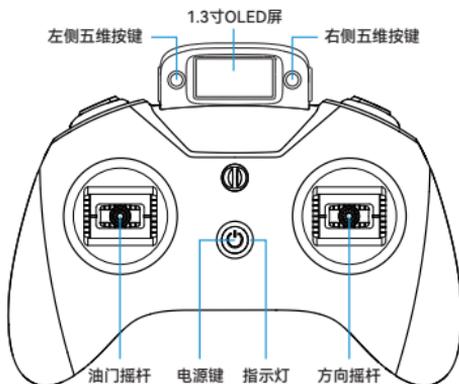
1.外观形态

LiteRadio 3 Pro遥控器外观形态如下图所示。

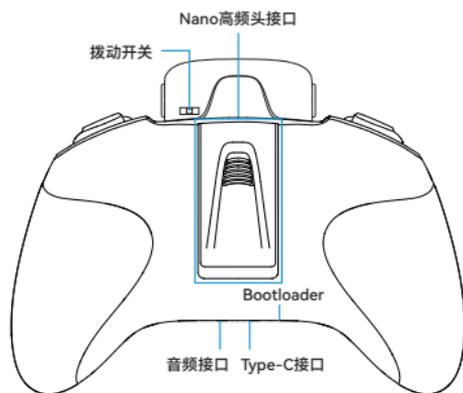
顶部图示：



正面图示：



背面图示：



- 开机键：长按开机/关机。
- Bootloader键：遥控器关机，同时按住Bootloader键和电源键，同时松开后，进入Bootloader界面。
- 拨动开关：拨动开关激活遥控器摇杆的微调功能。
- 左侧五维按键：向上/下/左/右拨动按键对摇杆进行微调；按下按键退出/返回页面。
- 右侧五维按键：向上/下/左/右拨动按键进行选择移动；按下按键为“确认/进入”。

2.LED状态和声音模式

- 遥控器开关按键下LED提示灯，用于提示遥控器的常见状态。

指示灯状态	状态说明	解决办法
绿色常亮	正在开机	长按开机键直到完成开机
红色常亮	油门摇杆或者按键不在最低位	按任意键跳过或者摇杆和按键都打到最低位
蓝色常亮	正常工作状态	
关机状态红灯亮	充电中	
关机状态红灯灭	充电完成	

- 遥控器可以设置声音、震动或者静音模式；默认为声音+震动模式。

3.界面及操作

- 开机提示

开机进入系统操作界面，如通道开关不在最低位，遥控器会警示通道状态，按照提示“Press any key to skip”按任意五维按键跳过，或将通道状态调至最低位，即可进入下一页。

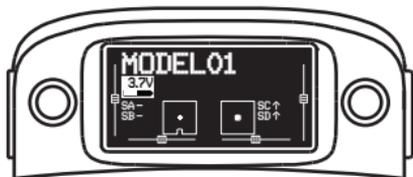


如遥控器电量非满电状态时，屏幕界面会警示“RTC Battery low”，按照指示“Press any Key”按下任意五维按键，进入下一页。



- 默认界面

跳过警示界面后，遥控器进入默认界面，通过向上/向下拨动屏幕右侧五维按键，切换默认界面。

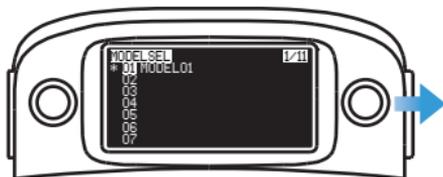


● 设置模式：

1. 进入模式。

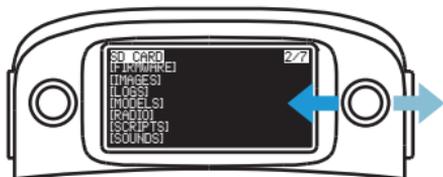


向左拨动右侧五维按键1秒，进入遥控器设置模式



向右拨动右侧五维按键1秒，进入模型设置模式

2. 切换页面。



向左/向右拨动右侧五维按键对设置页面进行切换

3. 退出设置模式。



短按左侧五维按键退出设置模式，
返回默认界面

● 遥控器高频头设置及绑定 (ELRS 2.4G版本)

如何确认遥控器内置协议：当遥控器Nano槽面标有“ExpressLRS”时，遥控器为内置ELRS版本。

1、当使用内置ELRS高频头时，需要将遥控模型如下设置：

将External RF 设置为OFF，将Internal RF 打开并选择为CRSF。

```
SETUP 2/11
Glob.Funcs  [X]
Internal RF
Mode        CRSF
Ch. Range   CHI-16
Receiver    00
External RF
Mode        OFF
```

```
SETUP 2/11
Glob.Funcs  [X]
Internal RF
Mode        [CRSF]
Ch. Range   CHI-16
Receiver    00
External RF
Mode        OFF
```

对频操作：进入ExpressLRS.lua 界面，选择Bind进入对频。

```
BETA FPV 2400TX 0/250 -
> TX Power
> VTX Administrator
> WiFi Connectivity
  [BLE Joystick]
  [Bind]
2.2.0 ISM2G4 442a9d
```

2、当安装并使用外置高频头时，需要将遥控器模型如下设置：

将External RF 打开并根据外部高频头选择正确协议，将Internal RF 设置为OFF

```
SETUP 2/11
Mode        OFF
External RF
Mode        CRSF
Ch. Range   CHI-16
Receiver    00
Trainer
Mode        Master/Jack
```

对频操作：根据安装的高频头使用说明进行对频。

● 遥控器高频头设置及绑定 (CC2500版本)

如何确认遥控器内置协议：遥控器Nano槽面标有“CC2500”时，为内置CC2500版本。

1、当使用内置CC2500高频头时，需要将遥控模型如下设置：

将External RF 设置OFF，将Internal RF 打开并选择MULTI 的对应协议

SETUP		2/11
No Telem	<input type="checkbox"/>	
No Ch. map	<input type="checkbox"/>	
Low Power	<input type="checkbox"/>	
External RF		
Mode	OFF	
Trainer		
Mode	Master/Jack	

SETUP		2/11
Mode	MULTI	
Type	FrSky	
Subtype	D16	
Status	No telemetry	
Ch. Range	CH1-16	
Receiver	00 [Bnd] [Rns]	
Freq tune	0 RSSI(0)	

对频操作：在模型设置界面，选择Bind进入对频。

SETUP		2/11
Mode	MULTI	
Type	FrSky	
Subtype	D16	
Status	No telemetry	
Ch. Range	CH1-16	
Receiver	00 [Bnd] [Rns]	
Freq tune	0 RSSI(0)	

2、当安装并使用外置高频头时，需要将遥控器模型如下设置：

将External RF 打开并根据外部高频头选择正确协议，将Internal RF 设置为OFF

SETUP		2/11
Mode	OFF	
External RF		
Mode	CRSF	
Ch. Range	CH1-16	
Receiver	00	
Trainer		
Mode	Master/Jack	

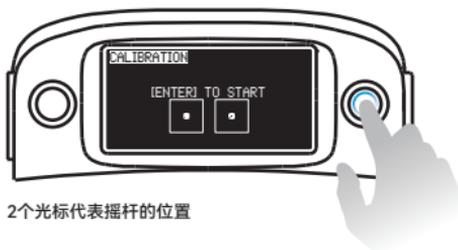
对频操作：根据安装的高频头使用说明进行对频。

4.摇杆校准

第一步：进入校准模式。

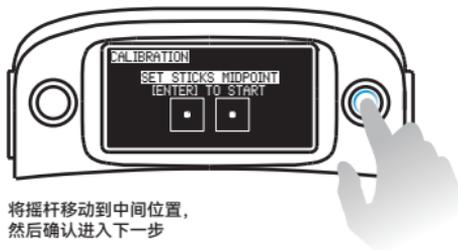


向左拨动右侧五维按键进去遥控器设置模式，选中并确定进入“Calibration”



2个光标代表摇杆的位置

第二步：根据提示完成校准。



将摇杆移动到中间位置，然后确认进入下一步



将摇杆分别向上/下/左/右移动至极限位置停留置1-2秒，然后确定完成校准

注意：校准过程中请勿用力过猛，以免影响校准精度，请在校准过程中轻微移动摇杆。

第三步：完成校准，退出校准模式。

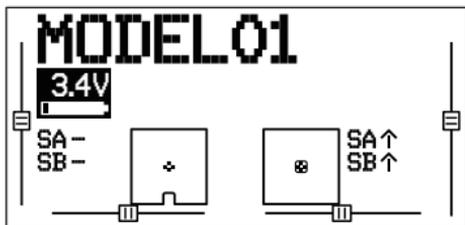


校准完成后，屏幕再次进入“Calibration”页面，按下左侧五维按键退出校准页面即可

5.低电量警报及充电

遥控器已经内置了2000mAh的电池，无需再外接电池，电池正常使用电压为4.2V-3.4V，屏幕实时显示电池电压。

当电池电压小于3.4V时会触发遥控器低电压报警，表现为：屏幕电池图标闪烁并伴随蜂鸣器震动和扬声器发出“滴滴滴，滴滴滴”提示音。请及时关机充电。



充电方式如下：

- 关闭遥控器；
- 使用USB线连接遥控器和适配器（5V输出的适配器即可，例如手机充电器）；
- LED红灯常亮，表示正在充电中；LED灯光熄灭，表示充电结束。

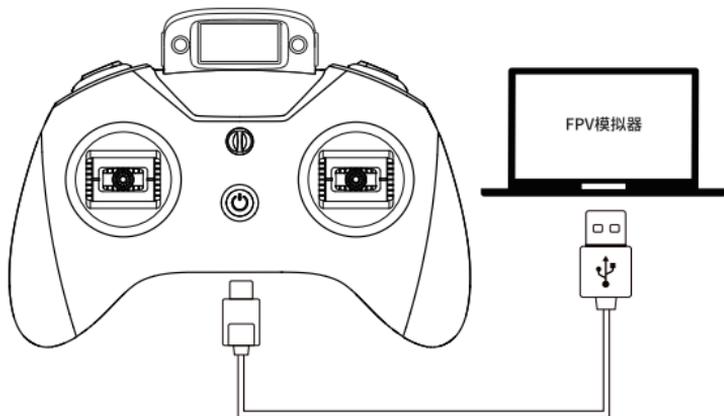


Type-C数据线

电池充满，可以连续使用15小时左右（100mW发射功率）；
电池充满，关机放置，可以保证30天电池电量仍保持在80%左右。

6.HID Joystick模式使用

在连接个人电脑后，LiteRadio 3 Pro遥控器可作为USB游戏手柄使用，可以用来练习模型模拟器。具体步骤如下：



Type-C数据线

- 遥控器开机；
- 使用一根USB数据线连接遥控器和PC电脑，遥控器满电状态下LED变为绿色，不满电状态下LED变为红色；
- 遥控器弹出提示，选择“USB Joystick (HID)”；
- PC会自动安装驱动，驱动安装成功后弹出提示框，说明电脑已经成功识别到此遥控器并可以正常使用。

其他设备



BETA FPV LiteRadio3 Pro Joystick

若无法正常识别出遥控器，则可能是电脑没有自动安装驱动，或者识别了错误的驱动程序，需要重新安装驱动。

注意：遥控器关机状态下连接到电脑，USB口无信号输出，无法使用Joystick功能。

7.更多信息

了解咨询更多信息，如常见问题，最新说明书等，请到BETA FPV官方支持网站（技术支持->遥控器指南）获取。

<https://support.betafpv.com/hc/zh-cn>

更新刷写内置ELRS固件：

<https://github.com/ExpressLRS/ExpressLRS-Configurator>

更新刷写内置CC2500固件：

<https://github.com/pascallanger/DIY-Multiprotocol-TX-Module>

- 如何升级固件；
- 如何创建遥控器模型。



Instagram



Facebook



Youtube



BETAFPV