

LiteRadio 4 Neo说明书-英文版

20260520修改内容说明：

- 降本后去掉蓝牙功能；
- 修改电池容量和续航时间；
- 将LR4 Neo和LR4 SE的说明书合并；

说明：LR4遥控器说明书分为“使用说明书”和“Support”两个部分，其中“使用说明书”会制作成纸质说明书附于产品包装内；“Support”仅放在官网Support页面，且内容会根据上位机的版本有所更新；

LiteRadio 4 Manual

LiteRadio 4 is a brand new radio transmitter from BETA FPV, equipped with ExpressLRS 2.4G protocol and the latest version of BETA FPV LiteRadio operating system.

It is compatible with FPV drones equipped with ELRS 2.4G series receivers, and also supports a variety of popular FPV simulators, including DJI Virtual Flight, meeting the needs of both beginners and advanced pilots.



Product Profile

Features

- Features the latest BETA FPV LiteRadio radio transmitter system
- Added 2 new tactile switches and upgraded the number of output channels to 10
- Added 2 trim buttons for LiteRadio 4 Neo, manually adjusting the corresponding joystick offset and quickly balancing the aircraft during flight.
- Upgraded signal accuracy and extended service life
- New Xbox mode for practicing in DJI Virtual Flight, compatible with computers, cell phones and tablets of various systems
- Built-in 1S 1000mAh Li-ion battery
- Support 15W max charging, fully charging the battery in just 30 minutes

Specifications

- Model: LiteRadio 4 Neo/LiteRadio 4 SE
- Operating Frequency: 2.4000-2.4835 GHz
- ELRS Transmit Power (EIRP): 2.4GHz<20dbm
- WiFi Transmit Power (EIRP): 2.4GHz<5dbm
- Operating Temperature: -10°C to 40°C
- Charging Ambient Temperature: 0°C to 35°C
- Battery Capacity: 1000mAh (Li-ion battery)
- USB Charging Input: 5V, supports up to 3A fast charging
- Product Weight: Approximately 210g
- Dimensions: 172.5mm*118.5mm*72.5mm

Default Setting

Mode

- Mode 2 (Left stick throttle)

RF Module Configuration

- Built-in RF Module: ON
- Built-in RF Module Wireless Protocol: ELRS3 2.4G

ExpressLRS System Configuration

- Transmit Power: 100mW
- Packet Rate: 250 HZ
- Telemetry Rate: 1:64

Channel Configuration

Channel	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
Input	Roll (A)	Pitch (E)	Throttle (T)	Yaw (R)	SA	SB	SC	SD

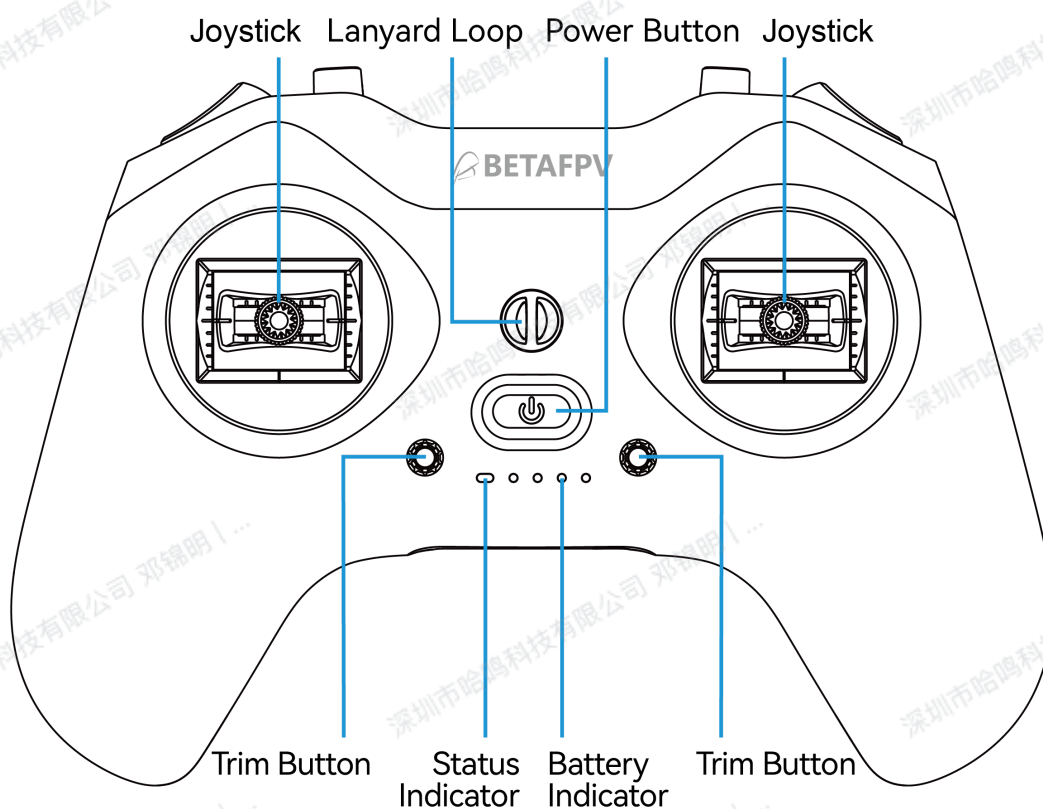
Other Settings

- Buzzer Tone Switch: ON
- Joystick Center Deadband: 1% (Joystick center dead zone does not act on the throttle channel)

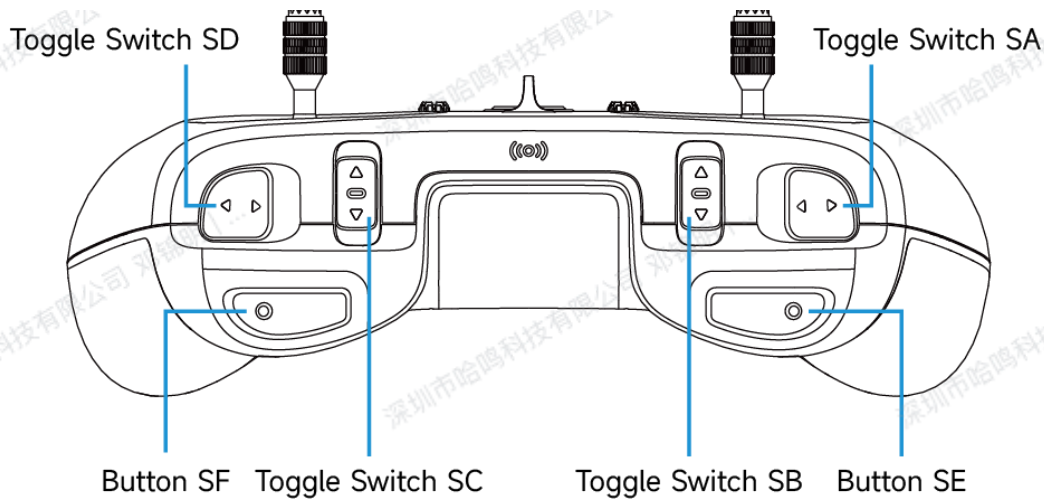
Appearance

LiteRadio 4 Neo and LiteRadio 4 SE transmitters differ only in the front trim buttons. The illustrations below use the LiteRadio 4 Neo as an example.

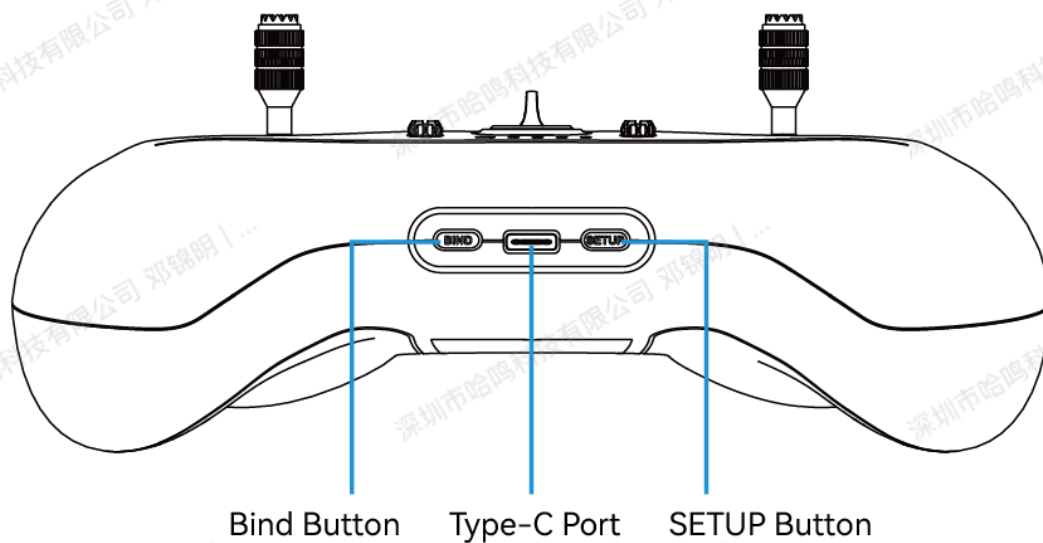
LiteRadio 4 Neo Front View



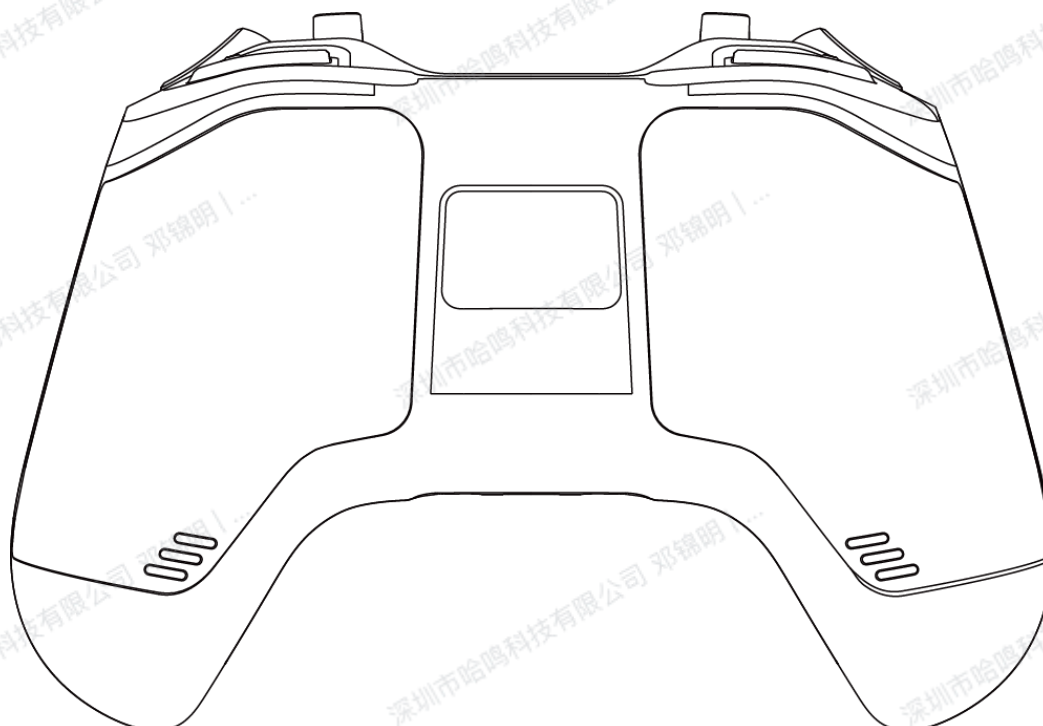
LiteRadio 4 Neo Top View



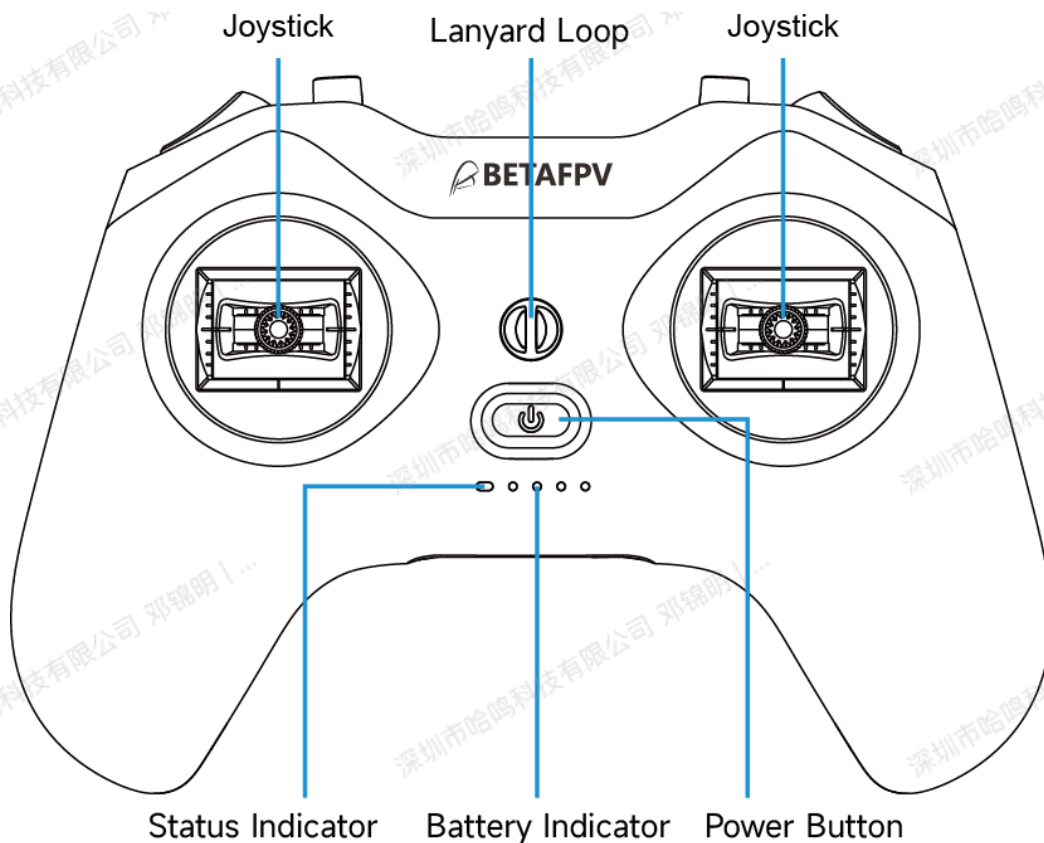
LiteRadio 4 Neo Bottom View



LiteRadio 4 Neo Back View



LiteRadio 4 SE Front View



Basic Operations

Power on/off

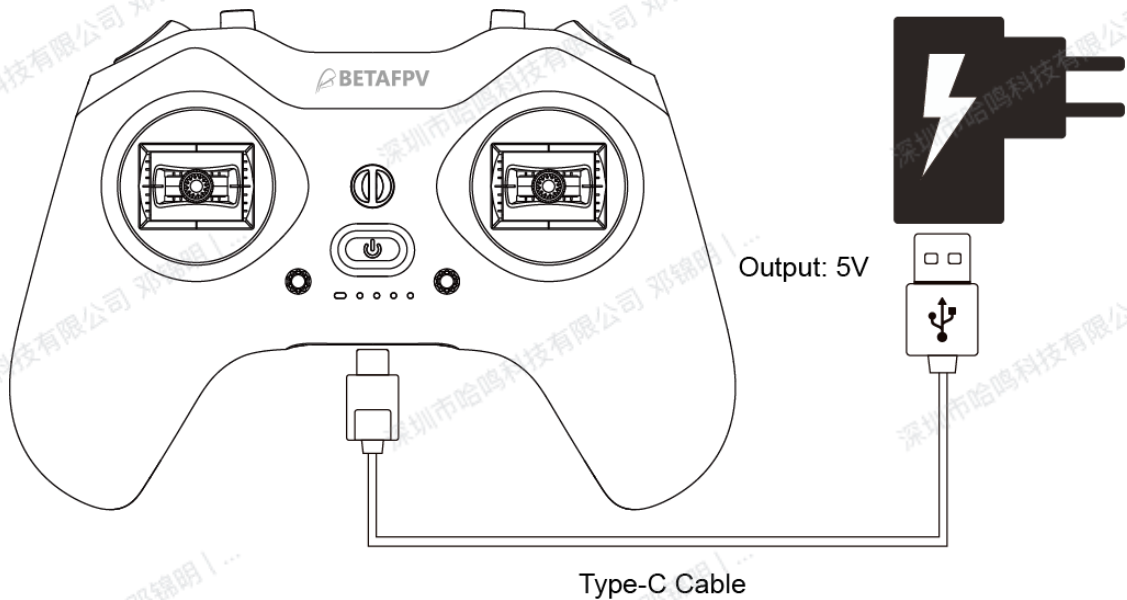
- Short press and then long press the power button, wait for the indicator lights to light up one by one and accompanied by the “beep beep beep” sound, the radio transmitter will be turned on.
- Short press and then long press the power button again, when the indicator lights turn off one by one and accompanied by “beep beep beep” sound, indicating the radio transmitter has powered off.
- Short press the power button to display the current battery level.

Mode	LED Indicator	Buzzers	Description
Working	Blue light solid on	No	Working
Wi-Fi	Green light solid on	No	Wi-Fi

Throttle position warning	Red light solid on	No	The throttle joystick is not at its lowest position, please move the throttle joystick to the lowest position
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Charging

To ensure safety during storage and transportation, the built-in lithium battery is shipped with about 80% charge. When getting your new LiteRadio 4 radio transmitter, please fully charge the batteries before using it.

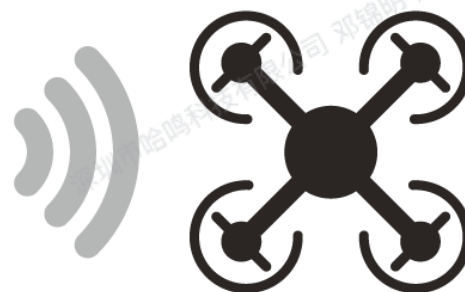
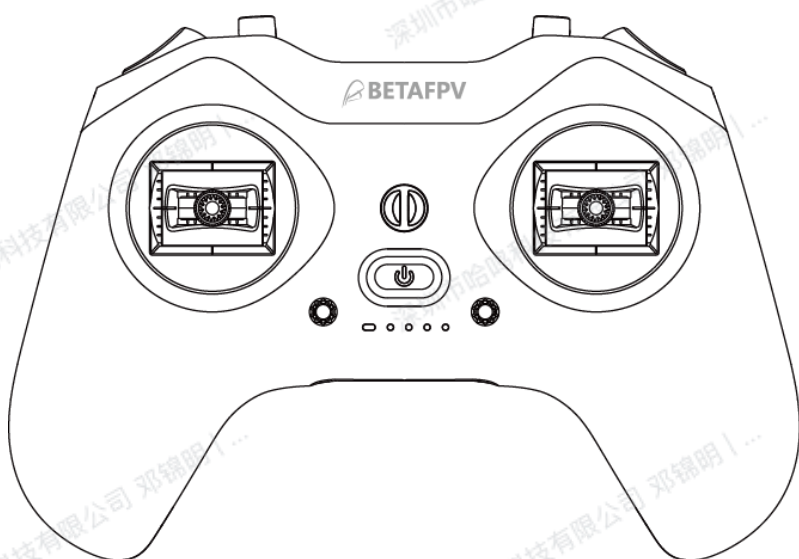


- Turn off the radio transmitter.
- Use a USB cable to connect the radio transmitter to a 5V adapter.
- Disconnect the adapter as soon as possible after charging is complete.
- When using the 3A/5V fast charger, the LiteRadio 4 radio transmitter takes only about 30 minutes from low battery warning level to fully charge.

Battery	Led Indicator	Buzzers	Description
Low Battery Warning	Orange light flashes four times and battery indicators turn off	With the sound of “beep beep beep”	Batteries are too low, need to be charged with the radio transmitter

Charging	Red light flashes and the battery indicators are lit one by one	No	Charging
Charging complete	Green light flashes and battery indicator is solid on	No	Charging complete

Frequency Binding with Receivers



- Turn on the radio transmitter.
- Put the receiver into the binding mode. Power the receiver on and off three times in quick succession to enter binding mode. For more details, please refer to the receiver's instruction manual.
- Long press the BIND button at the bottom of the radio transmitter to enter the binding state. This state lasts for up to 8 seconds.
- After the binding is successful, the radio transmitter emits a confirmation tone and automatically exits binding mode.
- If the binding is not completed within 8 seconds, please repeat the above operation.
- If you need to exit the binding mode, please short press the BIND button.
- After the receiver is successfully bound, it will automatically connect the next time it is turned on, and there is no need to repeat the binding.

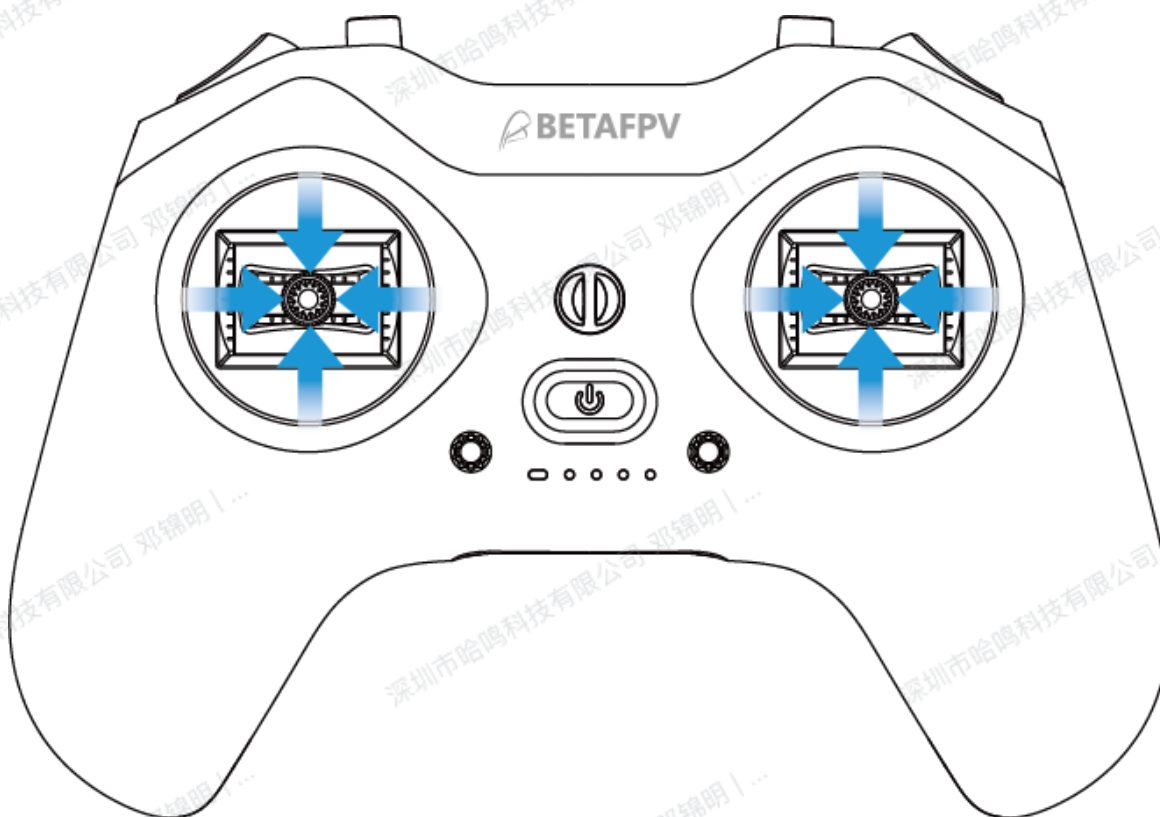
Bind Status	Led Indicator	Buzzer	Description
Binding	Status indicator flashes red twice rapidly.	Accompanied by the sound of "beep beep"	Binding

Binding complete	No	Beep sound (one short and one long)	Binding complete
Disconnection warning	No	Beep sound (One long and one short)	The receiver connection is interrupted and not reconnected/bound

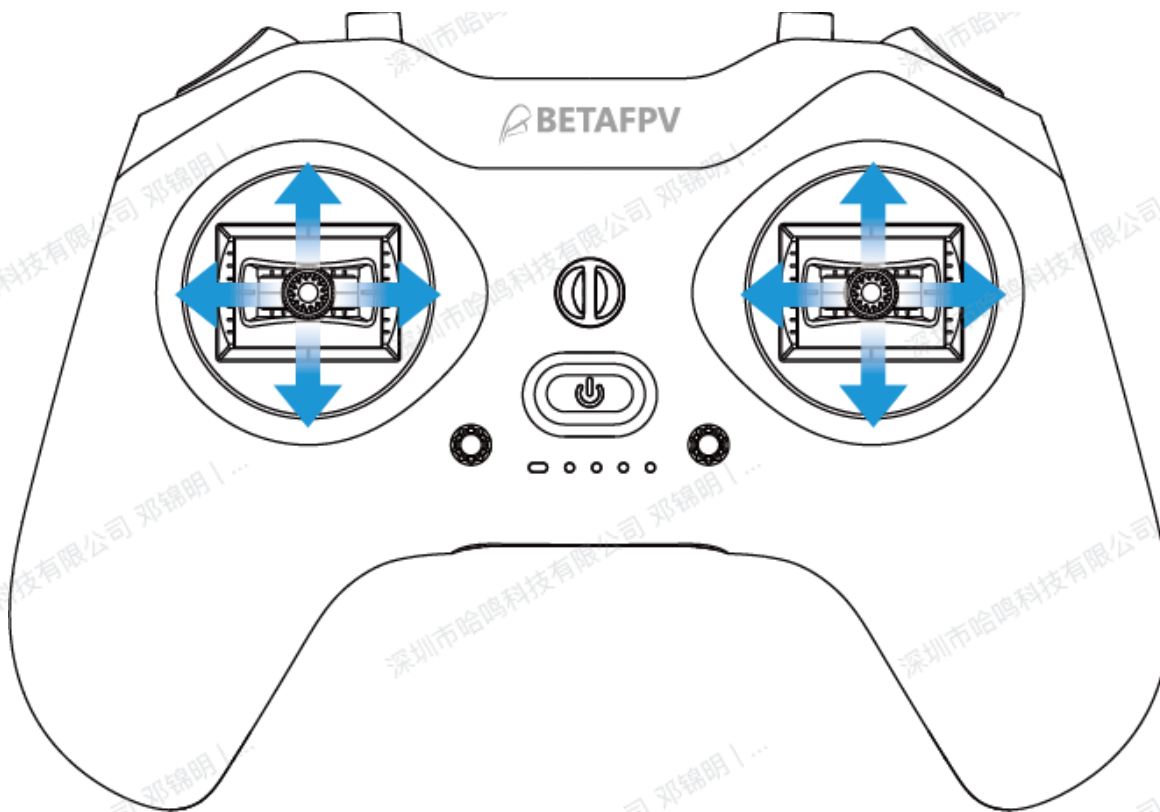
Calibrating the Joystick

Joystick calibration consists of two stages, the first stage is to calibrate the joystick center position and the second stage is to calibrate the joystick boundaries.

- Turn on the radio transmitter.
- Long press the SETUP button on the bottom of the radio transmitter to enter the first stage of the joysticks calibration state.
- Move all joysticks to the center position.



- Press the setup button briefly, the radio transmitter will record the center point of the joysticks and enter the second stage.
- Toggle the joysticks, gently touch the four boundaries: up, down, left and right.

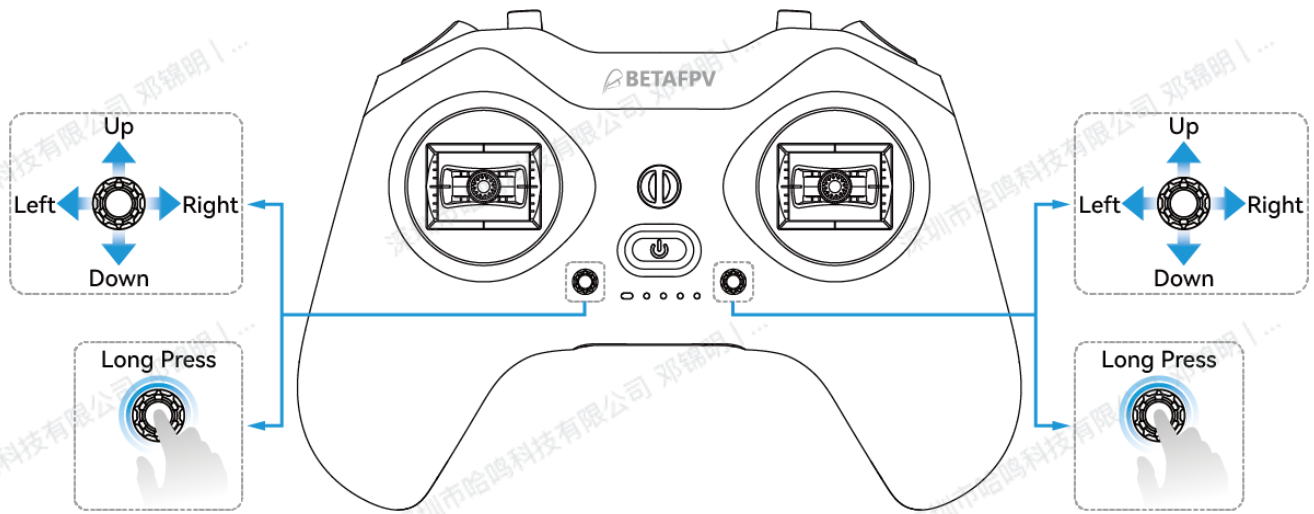


- Short press the SETUP button again, the radio transmitter records the joystick boundaries and complete the calibration.
- The joysticks of the LiteRadio 4 radio transmitter are calibrated at the factory, and need to be re-calibrated only if the radio transmitter is subjected to violent impacts, or if you notice a significant shift in the joysticks signal after extended use.

Calibration	Led Indicator	Buzzer	Descriptions
Calibration Center	Red lights flash three times	Accompanied by the sound of "beep beep"	Enter the joystick calibration mode and move all joysticks to the center position to set the midpoint.
Calibration Boundary	Red lights flash three times	Accompanied by the sound of "beep beep"	Gently move the joystick to the four boundaries of up, down, left, and right to set the maximum range of the joystick.
Calibration Complete	Red lights flash three times	Beep sound (one short and one long)	Calibration complete

Trim

The LiteRadio 4 Neo features two additional trim buttons compared with the LiteRadio 4 SE. The new trim buttons allow manual adjustment of the joystick offset, ensuring precise centering and reducing stick drift.



- Short press the trim button up/down/left/right, and the output of the corresponding joystick will shift up/down/left/right by 1%;
- Long press the trim button up/down/left/right, and the output of the corresponding joystick will continue to shift up/down/left/right until released;
- Long press the center of the trim button to reset all offset compensation values for the corresponding joystick to zero.

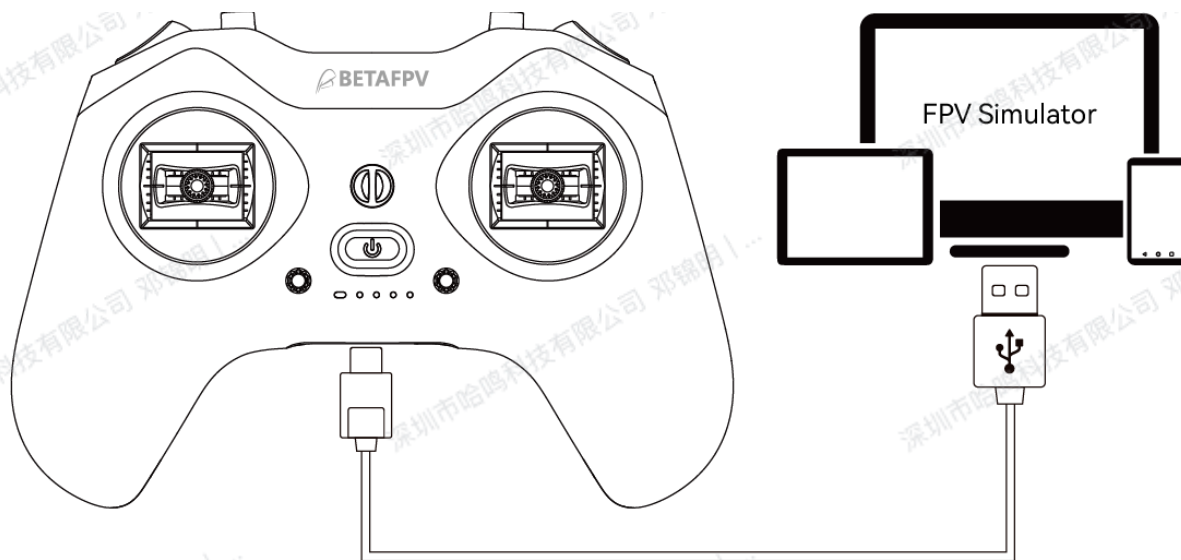
Connecting to Simulators

The LiteRadio 4 radio transmitter can be connected to computers, phones and tablets for practicing FPV simulator or DJI Virtual Flight simulator.

Simulator Software/Operating System	Windows	macOS	Android
FPV Simulator	√	√	√
DJI Virtual Flight	√ (Data Cable Xbox Mode)	×	√ (Data Cable Joystick Mode)

Solution 1: Joystick Mode

The USB cable joystick mode is compatible with both Windows and macOS computers, and supports all major FPV simulators except DJI Virtual Flight.



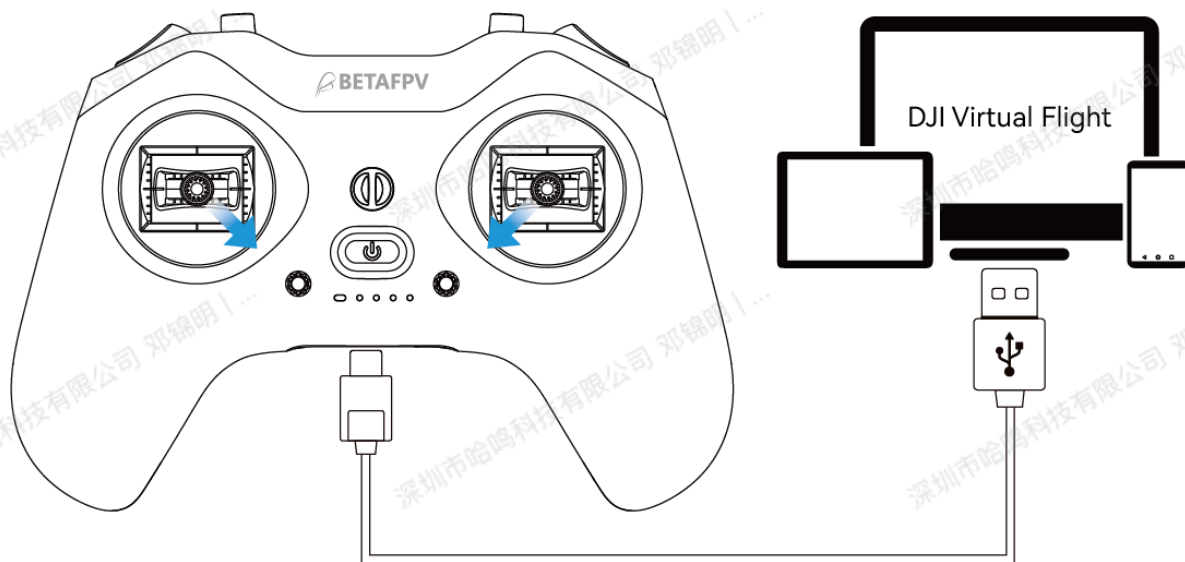
Type-C Cable

- Turn off the radio transmitter.
- Use a USB data cable to connect the radio transmitter and computer.
- At this time, the LiteRadio 4 radio transmitter can be identified as a “BETAFPV Joystick”.

Note: In the power-on state, there is no USB signal output and the joystick mode can't be used.

Solution 2: Xbox Mode

Xbox Mode requires a USB cable connection. It can be used to practice in DJI Virtual Flight simulator or other FPV simulators that support Xbox Mode, and is compatible with Windows/macOS computers, as well as Android phones and tablets.



Type-C Cable

- Turn off the radio transmitter.
- At the same time, turn the left joystick to the lower right corner and the right joystick to the lower left corner, at this time, use the USB cable to connect the radio transmitter to the computer, phones and tablets, the status indicator will flash white lights 3 times, indicating that it has successfully entered the Xbox mode.

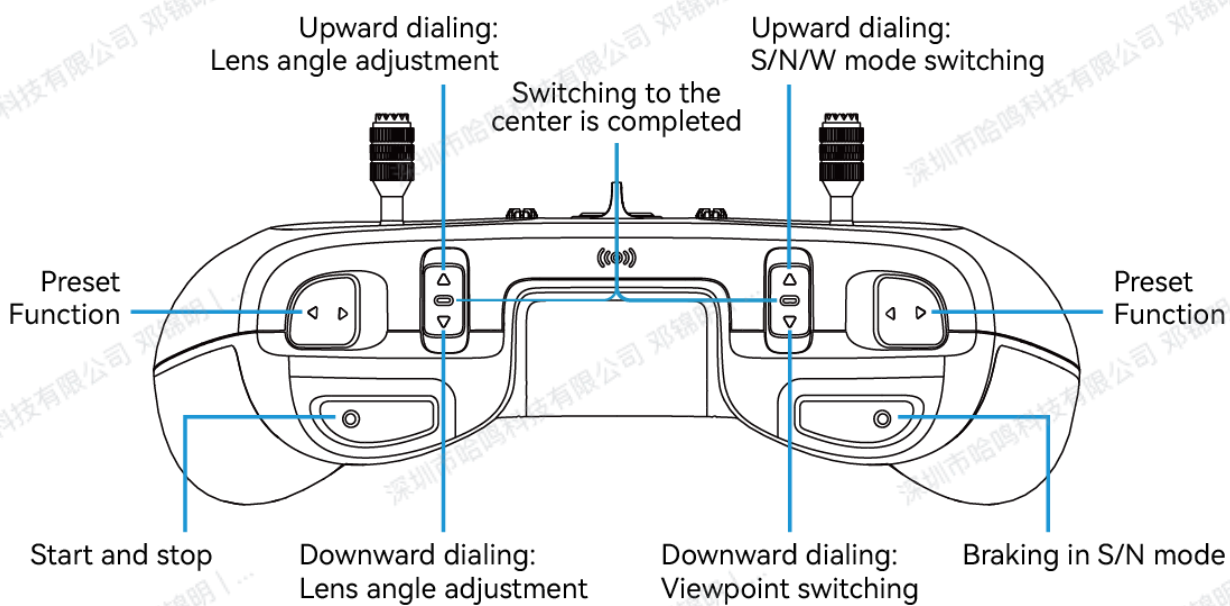
- At this time, the LiteRadio 4 radio transmitter can be recognized as “BETA FPV Joystick”.

Note:

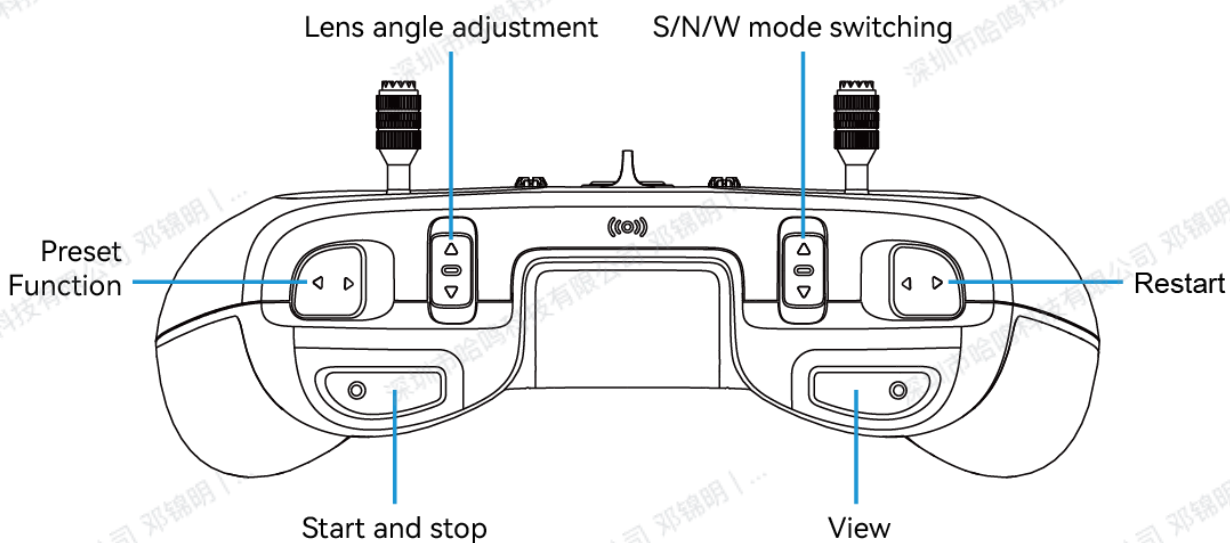
- There is no signal output from the USB of the radio transmitter in the power-on state, and Xbox mode cannot be used.
- After connecting to Xbox mode under Windows system, if you find that the cursor moves, please move the joystick and three-position switches of the radio transmitter to the center position, and move the two-position switches to the left and right.

DJI Virtual Flight Default Button Functions

- Windows Operating System



- Android Operating System



Configure Radio Transmitter

BETAFPV Configurator is a configuration tool independently developed by BETAFPV. It can configure specifications or upgrade firmware for LiteRadio series radio transmitter. It is compatible with computers running Windows, Linux and macOS.

Download: https://github.com/BETAFPV/BETAFPV_Configurator/releases

Connecting BETAFPV Configurator

- Turn off the radio transmitter.
- Connect the radio transmitter and computer by the USB cable.
- Open the BETAFPV Configurator application and switch to the radio transmitter configuration program.
- Click the “Connect Radio Transmitter” button in the upper right corner of the interface to enter the setup interface.

Note: In the power-on state, there is no signal output from the USB of the radio transmitter, so you can't use BETAFPV Configurator. Please do remember turn off the radio transmitter.

Upgrading the Radio Transmitter Firmware

- Turn off the radio transmitter and disconnect the USB connection.
- Press and hold the power button while holding down the SETUP button, the status indicator lights up blue with “beep beep” sound, and enter the radio transmitter firmware flashing mode.
- Use the USB cable to connect the radio transmitter and computer.
- Open the BETAFPV Configurator application and switch to the radio transmitter configuration program
- Click the "Firmware Flasher" button in the upper left of the interface to enter the firmware flashing page.
- Follow the “Steps of How to Flash” at the bottom of the firmware programming interface to complete the programming.

Note: When the radio transmitter is turned on, there is no USB signal output, so it is impossible to upgrade the firmware of the radio transmitter. Please do remember turn off the radio transmitter.

Visit the official support page for detailed BETAFPV Configurator tutorials and the latest firmware downloads.

Support page link: <https://support.betafpv.com/hc/en-us/articles/36869017436953-LiteRadio-4>

Compliance Information

FCC statements

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications or changes to this equipment. Such modifications or changes could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Radiation Exposure Statement

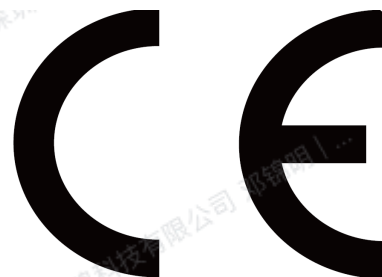
The SAR limit of USA (FCC) is 1.6 W/kg averaged over one gram of tissue.

This product has also been tested against this SAR limit.

To maintain compliance with FCC RF exposure requirements, the use of belt clips, holsters, and similar accessories should not contain metallic components in their assembly. The use of accessories that do not satisfy these requirements may not comply with RF exposure requirements and should be avoided.

EU Declaration of Conformity

Hereby, Shenzhen Baida Moxing Co.,Ltd. declares that the radio equipment type LiteRadio 4 Neo is in compliance with directive 2014/53/EU.



The full text of the EU declaration of conformity is available at the following internet address: <https://support.betafpv.com/hc/en-us>

Specific Absorption Rate (SAR)

- Your device is tested to comply with applicable requirements and regulations of the European Union of human exposure to radio waves.
- Specific Absorption Rate (SAR) is used to measure radio waves absorbed by human. The device complies with RF specifications when the device is used at a distance of 0mm from your limbs. The SAR limit is 4.0 W/kg averaged over 10 gram of tissue in the European Union.
- LiteRadio 4 was tested and recorded the maximum SAR value was 1.78W/kg for the limbs.

CAUTION RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.

DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

Disclaimer

Before using this product, please read and comply with the operating guidelines in this manual carefully. If the product malfunctions or becomes unusable due to irregular operation, BETAFPV may not be able to provide you with the corresponding warranty measures and other after-sales services.

By using this product, you are deemed to have read and accepted all the terms and conditions associated with this product.

The supported wireless operating frequency bands and their corresponding usable ranges vary across different countries and regions. Please refer to your local laws and regulations for specific details.

The documentation for this product is subject to change without notice, please visit www.betafpv.com for the latest information.

Support

Configuration Parameter

BETA FPV Configurator is a ground station application independently developed by BETA FPV. It can configure specifications or upgrade firmware for LiteRadio series radio transmitter. It is compatible with computers running Windows, Linux and macOS.

Download: https://github.com/BETA FPV/BETA FPV_Configurator/releases

Connecting BETA FPV Configurator

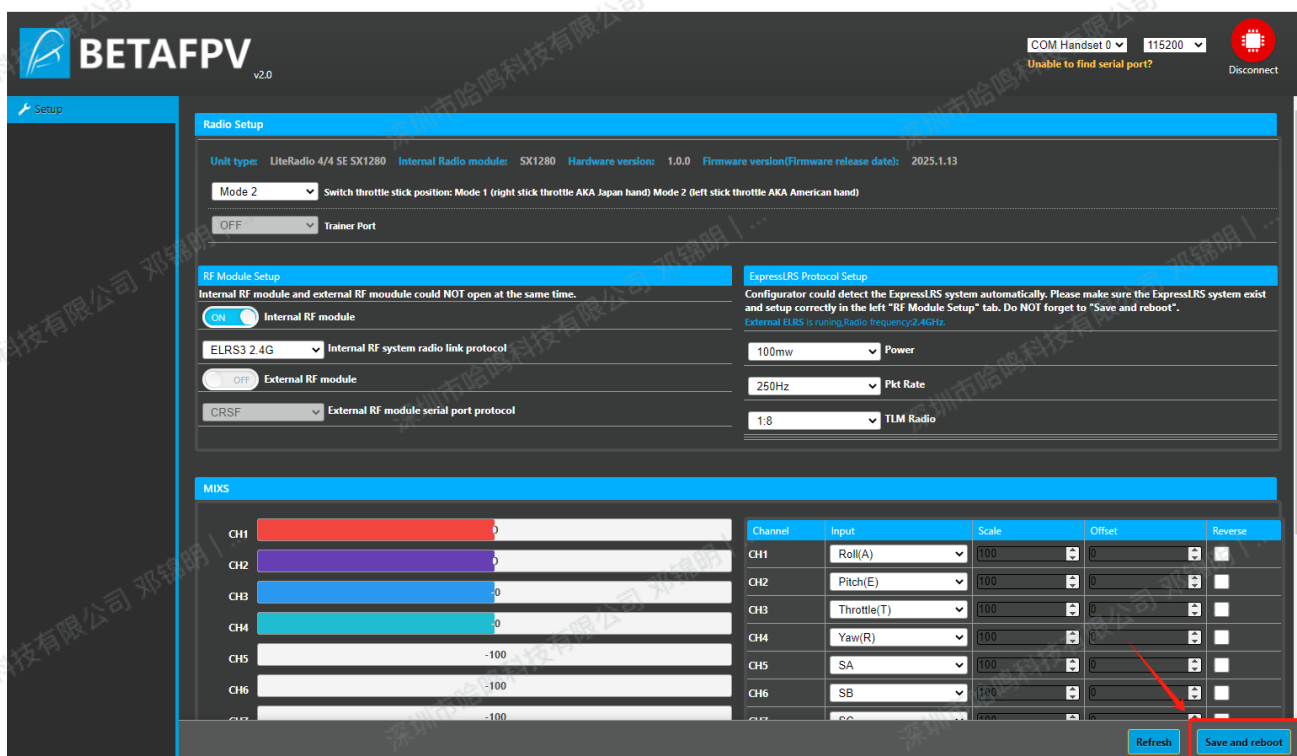
- Turn off the radio transmitter.
- Connect the radio transmitter and computer by the USB cable.
- Open the BETA FPV Configurator application and switch to the radio transmitter configuration program.



- Click the "Connect RC" button in the top-right corner of the interface to enter the remote control configuration interface.



- After modifying the configuration, click the "Save and reboot" button in the bottom-right corner of the interface to complete the configuration.



Note: In the power-on state, there is no signal output from the USB of the radio transmitter, so you can't use BETA FPV Configurator. Please do remember turn off the radio transmitter.

Configuration Parameter

Basic Configuration

- Radio Transmitter Mode: Mode1(throttle is in the right hand i.e.) /Mode2(throttle is in the left hand i.e.)

ExpressLRS System Configuration

- Transmit Power: 25mW/50mW/100mW
- Packet Rate: 500Hz/250Hz/150Hz/50Hz
- Telemetry Rate: OFF/1:128/1:64/1:32/1:16/1:8/1:4/1:2

Channel Configuration

- Input
- Ratio
- Offset compensation
- Reverse

Other Settings

- Buzzer: ON/OFF
- Joystick Center Deadband: 0%-10% (Joystick center deadband does not act on the throttle channel)

Note:

- After modifying the configuration, click the "Save and reboot" button in the bottom-right corner of the interface to complete the configuration.
- Since the LiteRadio 4 remote control has a built-in radio frequency (RF) module and does not support an external RF module, there is no need to set the RF module configuration.

Firmware Upgrade

The firmware of the LiteRadio 4 consists of two parts: the remote control and ELRS, which need to be flashed in different ways.

Firmware download address: <https://support.betafpv.com/hc/en-us/articles/36869017436953-LiteRadio-4>

Upgrading the Radio Transmitter Firmware

- Turn off the radio transmitter and disconnect the USB connection.
- Press and hold the power button while holding down the SETUP button, the status indicator lights up blue with “beep beep” sound, and enter the radio transmitter firmware flashing mode.
- Use the USB cable to connect the radio transmitter and computer.

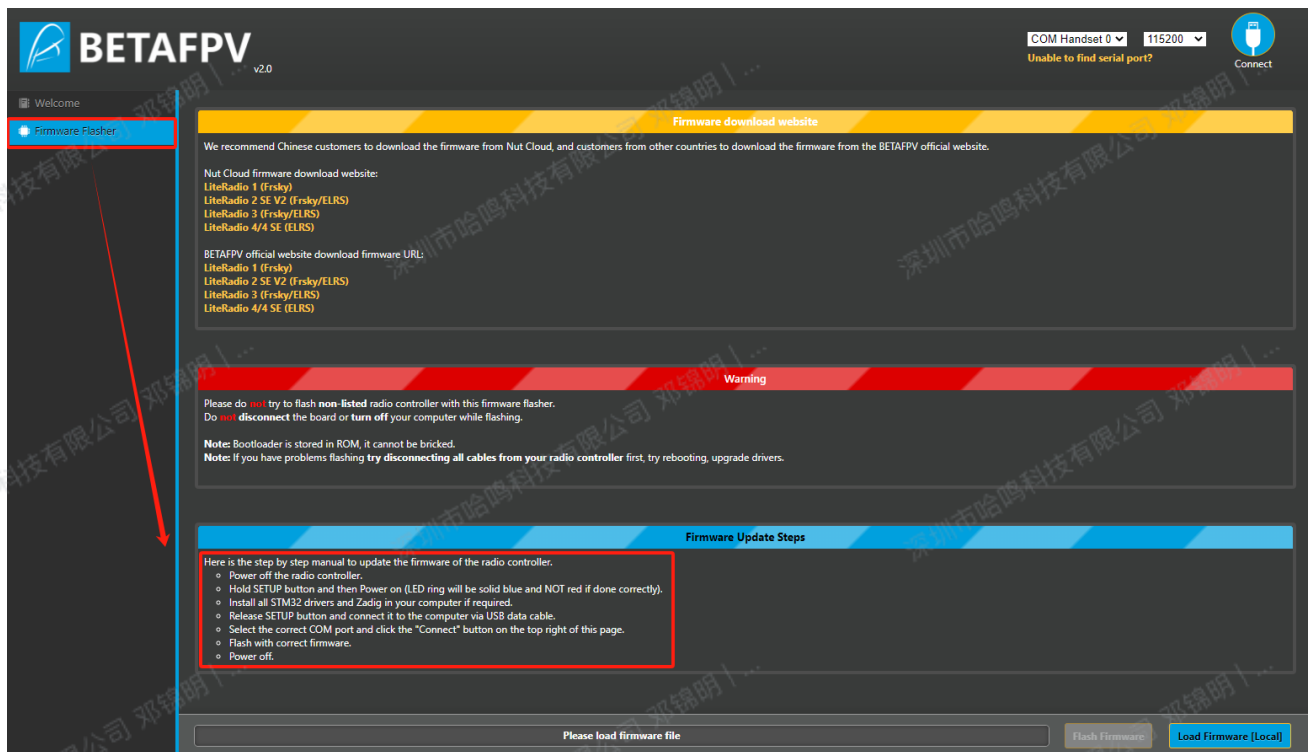
- Open the BETAFPV Configurator application and switch to the radio transmitter configuration program



- Click the "Firmware Flasher" button on the upper left of the interface to enter the firmware flash interface.



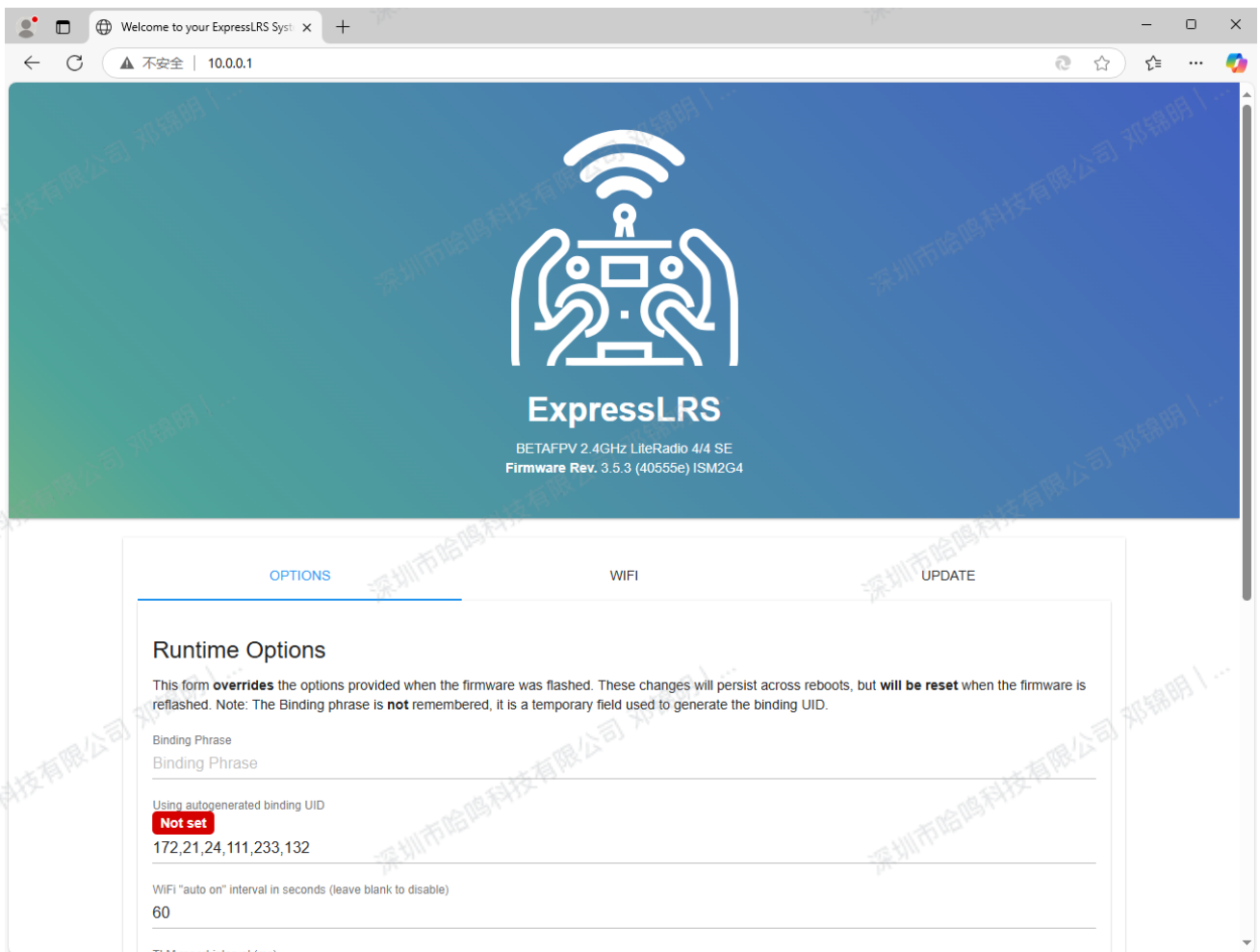
- Follow the “Steps of How to flash” at the bottom of the firmware programming interface to complete the programming.



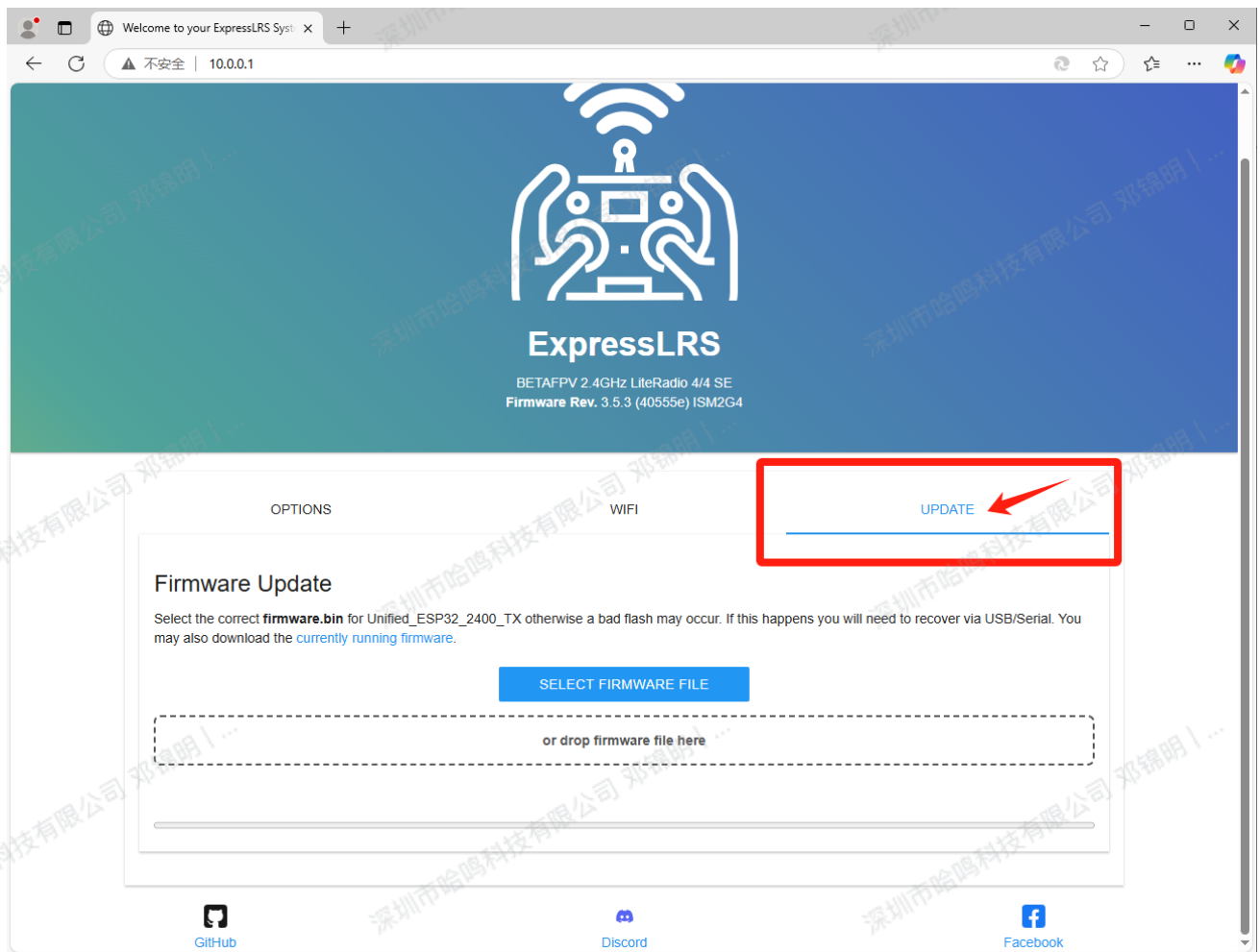
- Short-press the power button to exit flashing mode and power down.

Flashing the ELRS firmware

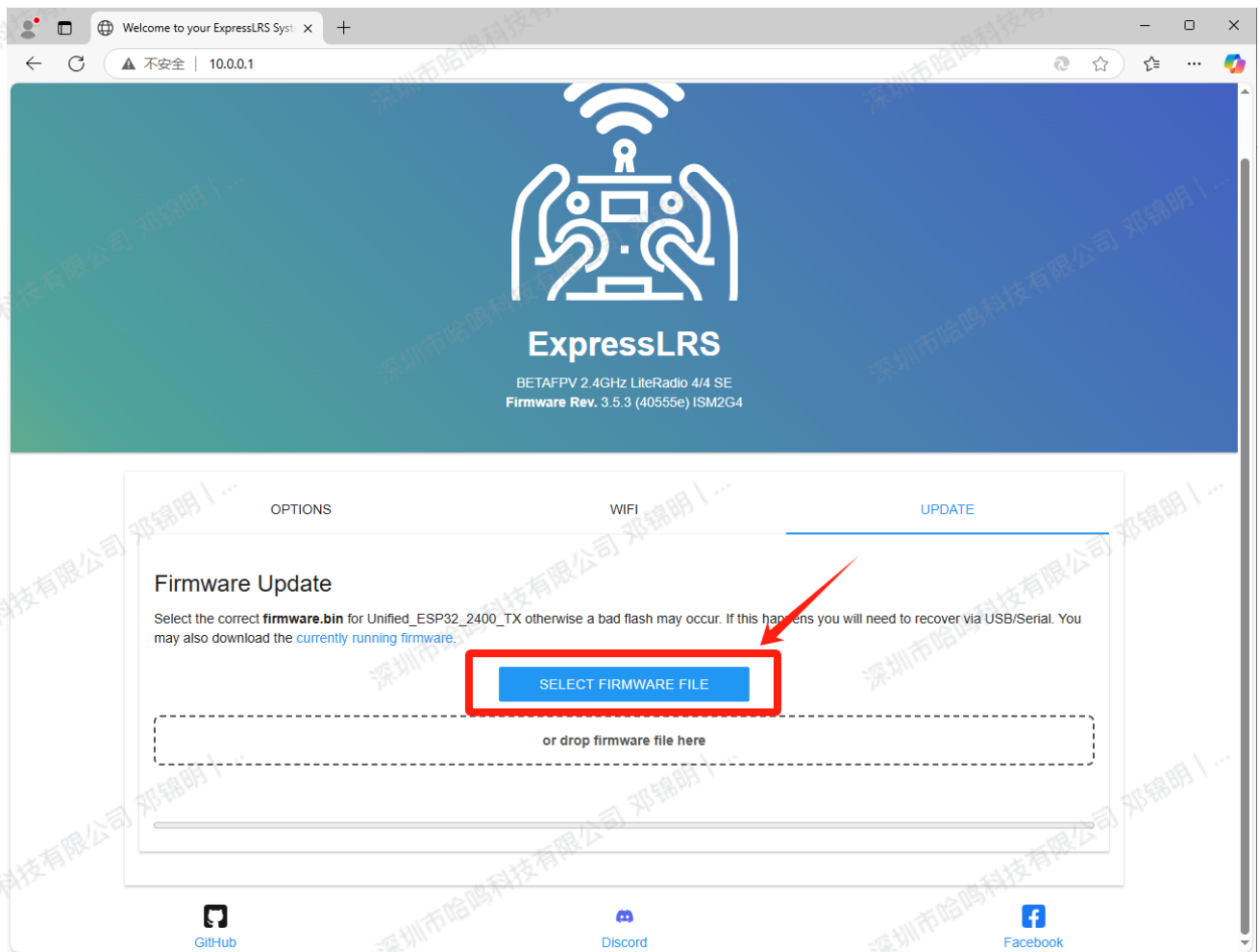
- While holding down the BIND key, quickly press and then long-press the power button to turn on.
- Press the BIND key briefly again. The status light will change from purple to green, indicating that the remote control has entered Wi-Fi mode.
- Connect the remote control to the computer via the Wi-Fi network named "ExpressLRS TX". The default password is "expresslrs".
- After a successful connection, the browser will automatically open and load the ExpressLRS configuration page.



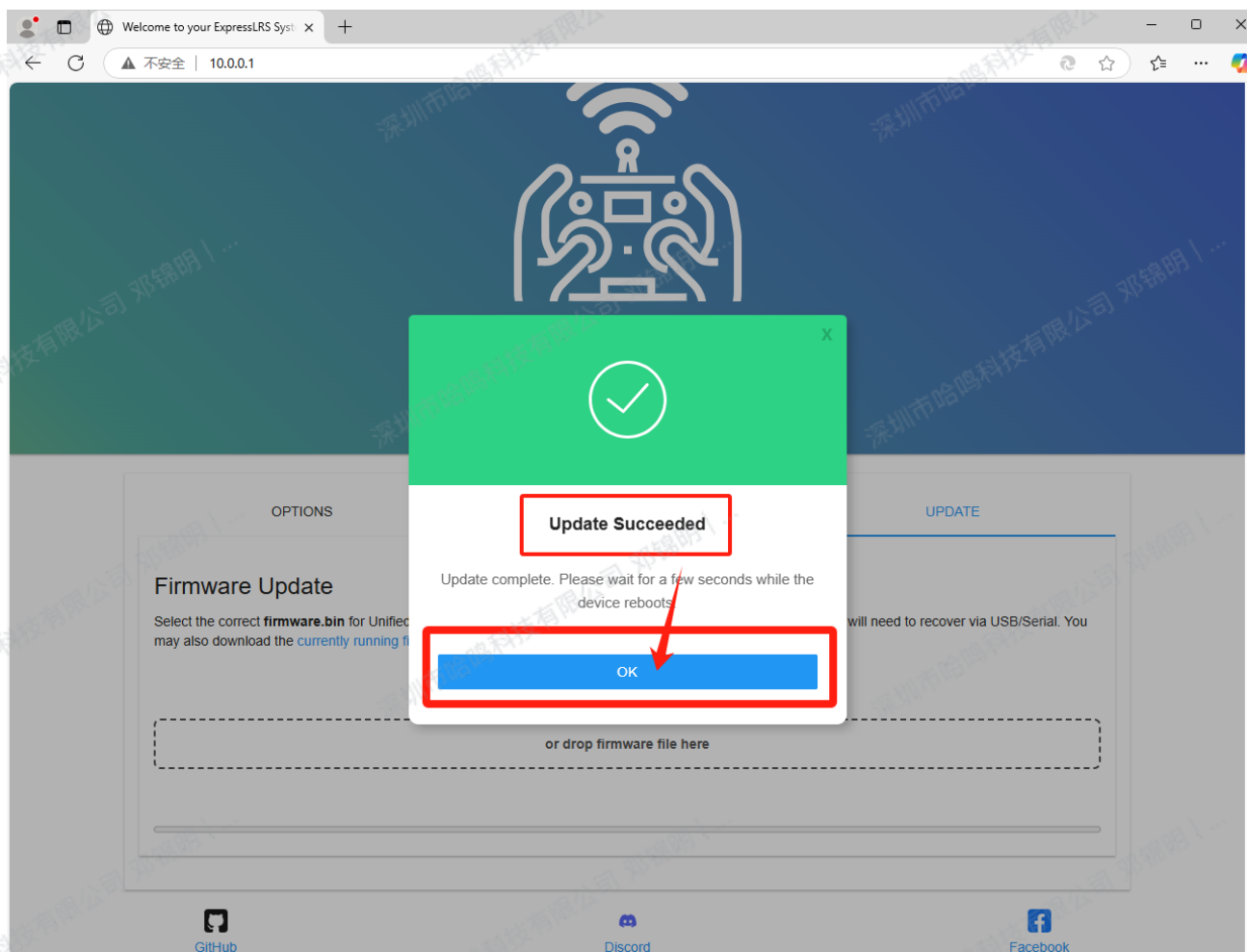
- Navigate to the UPDATE tab.



- Click the "SELECT FIRMWARE FILE" button, select the local firmware, and then start the flashing process.



- Verify that 'Update Succeeded' is displayed, indicating a successful firmware update.



- Short-press and then long-press the power button to exit flashing mode and turn off the transmitter.

Precautions for Firmware Flashing

- Please select the correct firmware version.
- Please ensure that the radio transmitter has sufficient battery power.
- Do not disconnect the connection between the radio transmitter and the computer during the flashing process.