SKYDROID-M12 instruction manual

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Preface

Part 1: introduction of interfaces, buttons and indicator lights.

Part 2: debug app introduction

Part 3: receiver flight control wiring and settings

Part 4: how to upgrade firmware

Part 5. How to switch left and right hand throttle

Part 6: frequently asked questions (continuous updating)

Introduction to the M12 link control system

SKYDROID-M12 is a low latency long-range UAV link. The whole system consists of 2 parts: ground remote controller and airborne terminal.

Ground remote control:

1, 2.4G wireless transceiver: used for transmitting remote control signal + app point operation + receiving sky-end data (i.e., data transmission) flight data.

2, built-in 4000ma battery: ultra low power consumption, life time 30-40 hours.

3, 2.4G chip: 100MW power, the test can be the farthest distance of 60km remote control, and the stable distance is 20-30km.

Receiver:

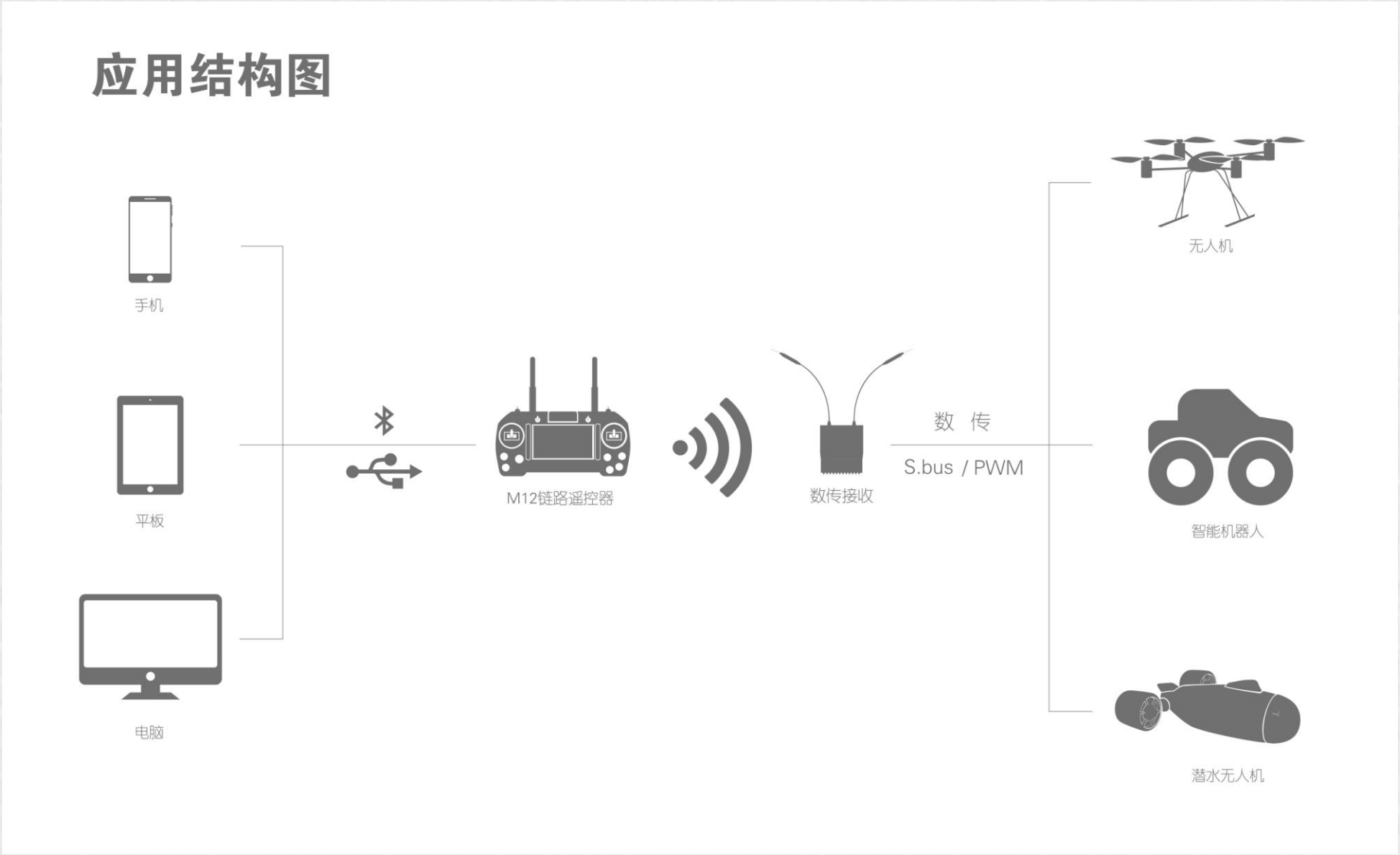
1, real dual redundant dual antenna design

2, excellent algorithm control and frequency hopping algorithm. The communication ability of weak signal is greatly increased.

3. While receiving the remote control signal, reserve TX RX and return the flight data to the ground remote controller. Maximize the use of 2.4G wireless bandwidth, to solve the 433 and 915 bands in small UAV and congested space instability and non-interference.

4, PWM and SBUS output simultaneously, and support device extension.

三、Diagram



Part 1: introduction of interfaces, buttons and indicator lights.

Replaceable antenna

Mobile bracket: pull up when using.。

Temporarily no function

Power switch

Battery lamp

3 segment of lever

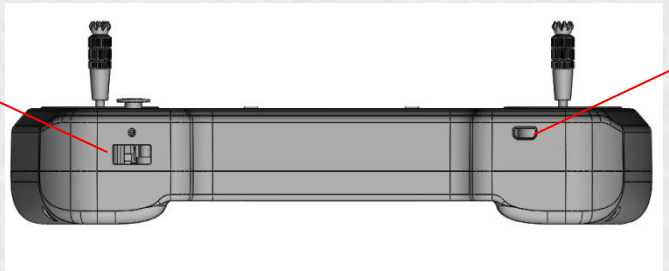
3 segment of lever

Rocker, waterproof and dustproof

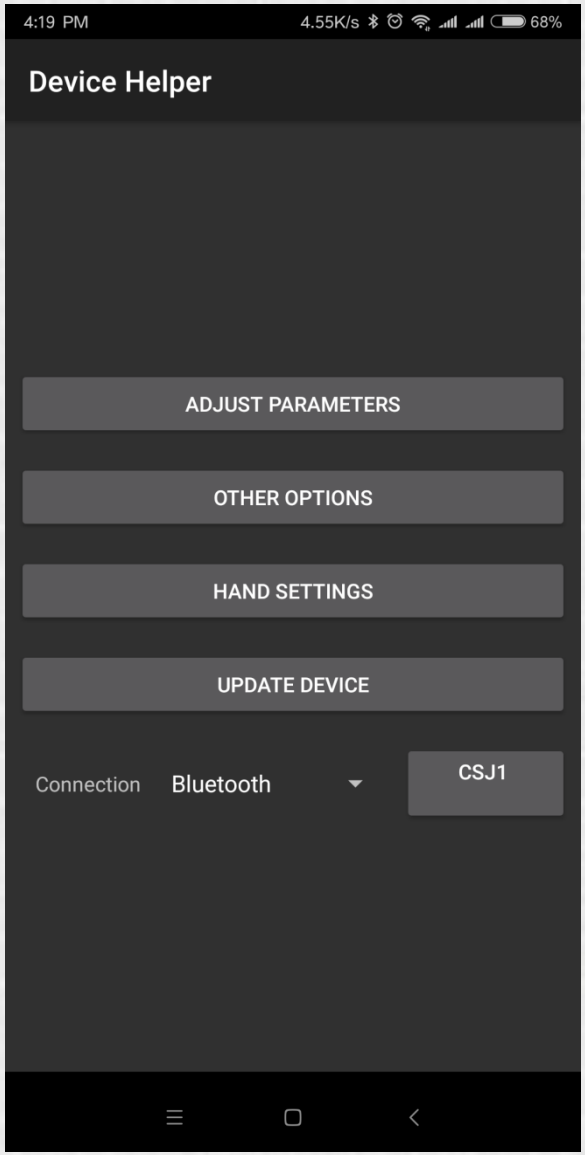
Button, three segment switch
Short press and long press

Small rocker speed mode + angle mode

5V output and charging lamp



1, charging interface 5V1A
2, upgrading firmware.
3. Connect PC control software. missionplanner



The second part connects mobile phone parameter APP.

1. Transmitter and receiver wiring and energizing.

2, APP currently supports Android system only.

Website: (www.fuav.xin) Download app: device helper, or QRcode

3, Start up (short press and then press long), use your Android phone to search Bluetooth, M12-XXX. pairing code is 1234.

4,,Start app, select Bluetooth connection, and select Bluetooth that has just been matched

Parameter adjustment is used to adjust the channel's reverse, binding and failsafe

Other options are used to select receiver SBUS, PPM output, and digital baud rate, Bluetooth name.

Hand set - switch throttle hand.

Upgrade device - used to update firmware online.

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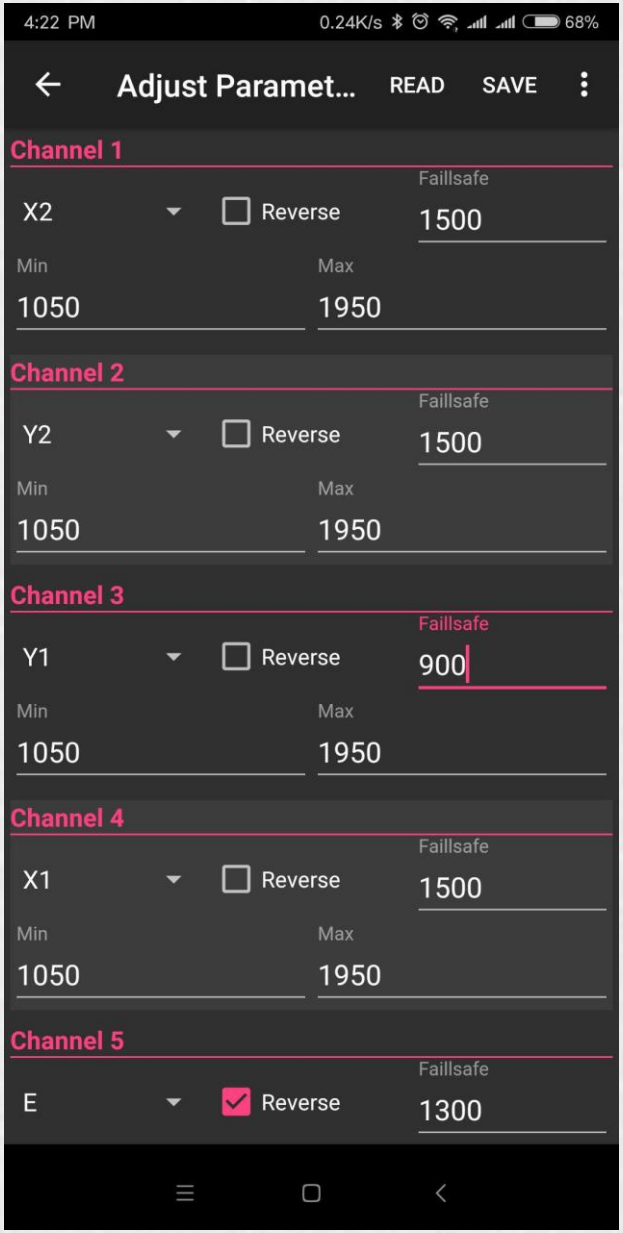


5、The parameter -app will read the current value of transmitter and receiver.

For example

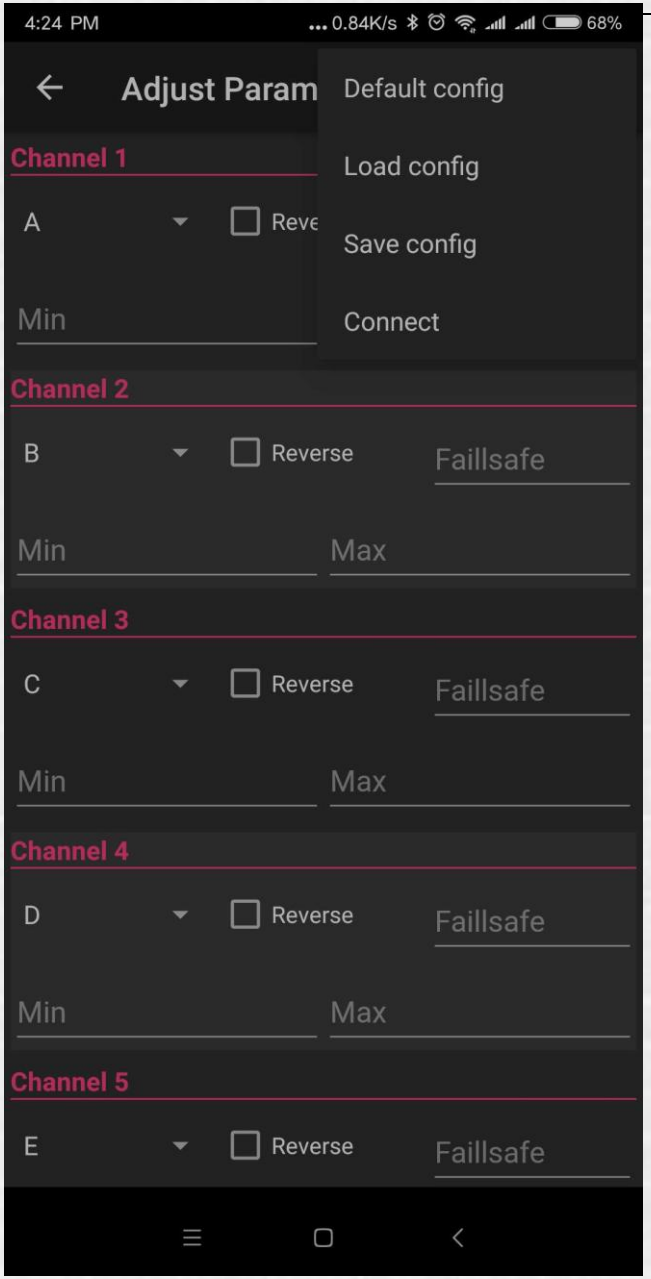
Channel 1: Binding key is X2, no reverse, failsafe 1500, minimum rudder is 1050, maximum rudder is 1950

Channel 2: Binding key is Y2, no reverse, failsafe 1500, minimum rudder is 1050, maximum rudder is 1950

Channel 3: Binding key is Y1, no reverse, failsafe900, minimum rudder is 1050, maximum rudder is 1950

Channel 4: Binding key is X1, no reverse, failsafe 1500, minimum rudder is 1050, maximum rudder is 1950

Note: if you want to maintain the value before losing control, failsafe fill in "0". After adjustment, check correctly, click on the upper right corner to write, otherwise you will not be able to record the transmitter and receiver.

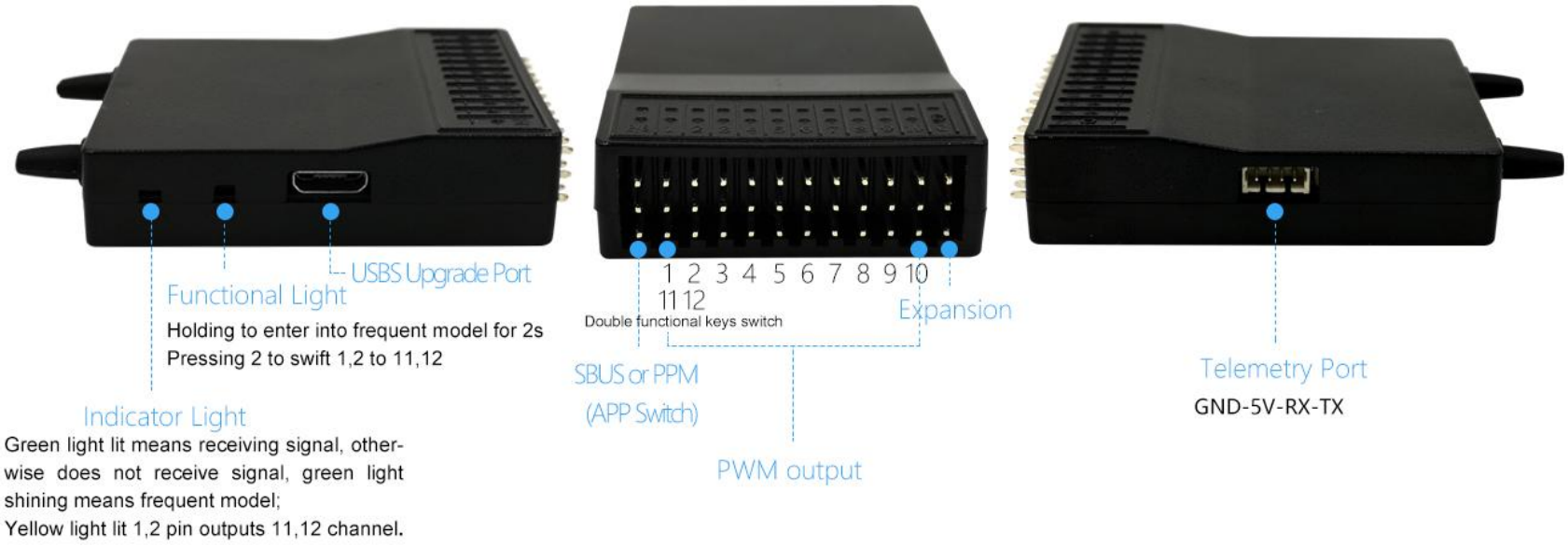


6、Parameter save, parameter loading

In order to facilitate the replacement of models, or batch configuration. We can save the parameters on your mobile phone. Each time you load parameters and write to the transmitter and receiver, you can quickly configure them.

The custom name can be saved, and the arguments are loaded equally.。

The third part: receiver flight control wiring and setting.



GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND
5Vs	5V	5V	5V	5V	5V	5V	5V	5V	5V	5V	D
Sbus Ppm	1/11	2/12	3	4	5	6	7	8	9	10	C

Fault light:

Red light flashing --- receiver fails to pass self test, re energized test, if still red light flash need repair

The fourth part: M12 how to upgrade firmware.

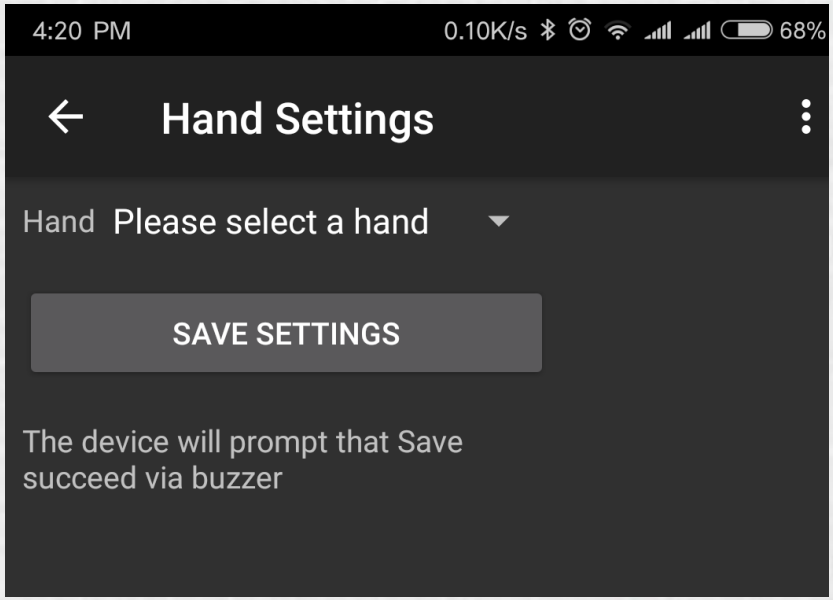
Download the device helper connect the remote control with Bluetooth. Select Bluetooth, refer to the first part.

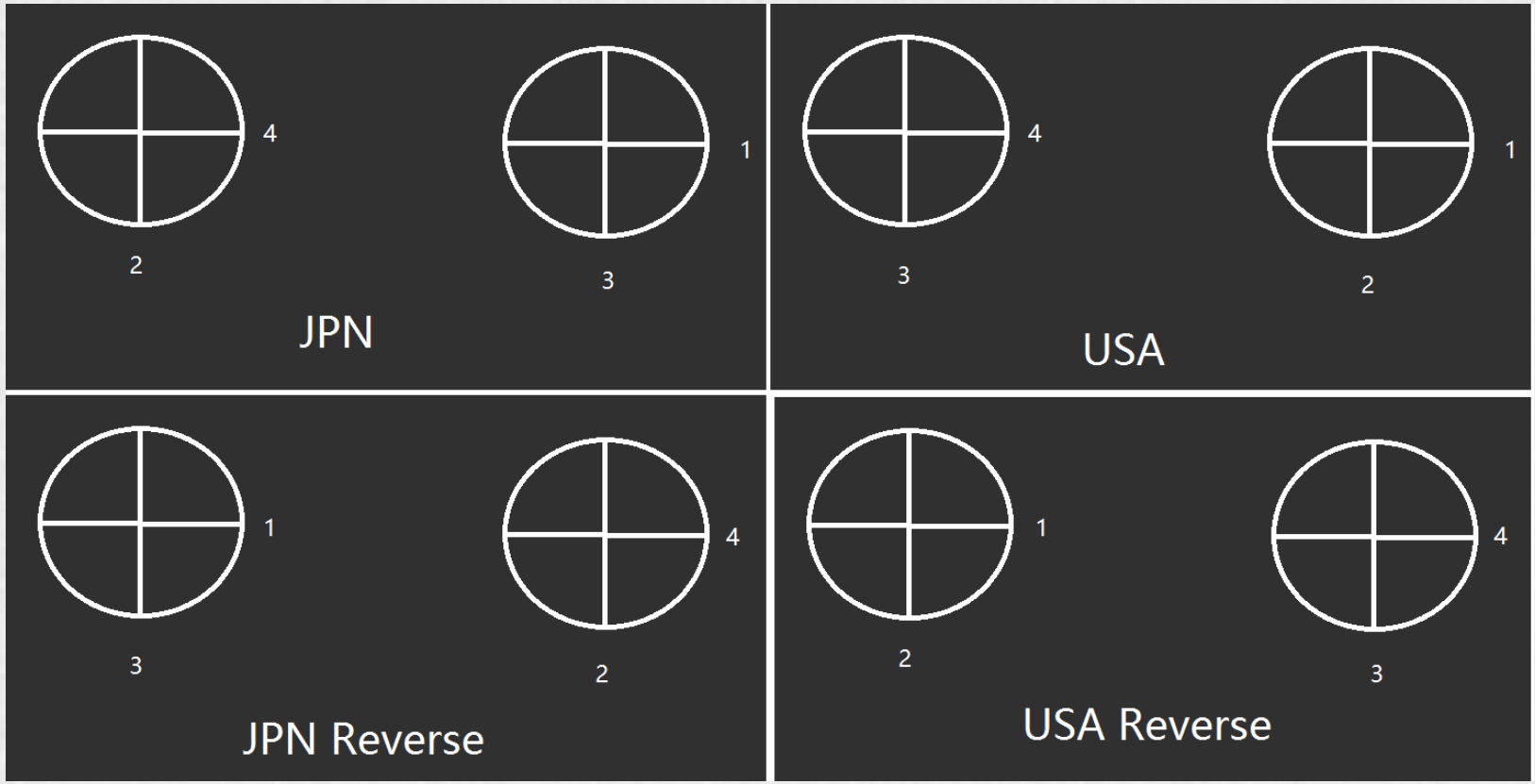
Turn off the remote control, hold down the "A button" and turn on the machine. The remote control drops into the download mode.

Open the device helper, click Check and update, if you have new firmware, please click to upgrade immediately.

第五部分：M12 如何左右手切换

There are 4 hand shapes in the device helper.





The sixth part: common problems (continuous updating)

Question1: How far can M12L remote control go?

Answer: According to our own sea level test, using ordinary antenna can reach about 30-60 kilometers, high gain antenna has no data for the time being, because there is no such long-range aircraft.

Question2:Does M12L receiver support PPM and SBUS?

Answer: support! By default, the first row of pins is the SBUS signal interface. If you want to use the PPM signal, you can switch in app.

Question3:how do we define the two antennas on the M12 host?

Answer: 2 antennas are 2.4G, two are digital transmission, and they are all remote control. Using diversity technology.

Question4:How do we define the two antennas on the M12l receiver?

Answer: Receiver adopts dual antenna redundancy design, that is to say, two antennas receive the host signal at the same time, and transmit the return signal at the same time. When flying, it is suggested that two antennas should be separated at a certain angle, and then drift with the wind to achieve better reception effect.

Question5: what does M12L standard box contain?

Answer: M12L host * 1, 2.4G antenna * 2, data line * 1, receiver * 1 (including wiring), mobile phone bracket * 1, wrench * 1 (adjusting bracket tightness)

Question5：how does M12L charge?

Answer: Use the micro USB data line in M12L package to insert charging and discharging indicator lamp: The lamp will flicker when charging.

There will be more information on the website **www.fuav.xin**

If you use QQ, you can add groups : 318480806, or you can add WeChat public address.