

Sector150 HD

FPV Racing Drone

Manual



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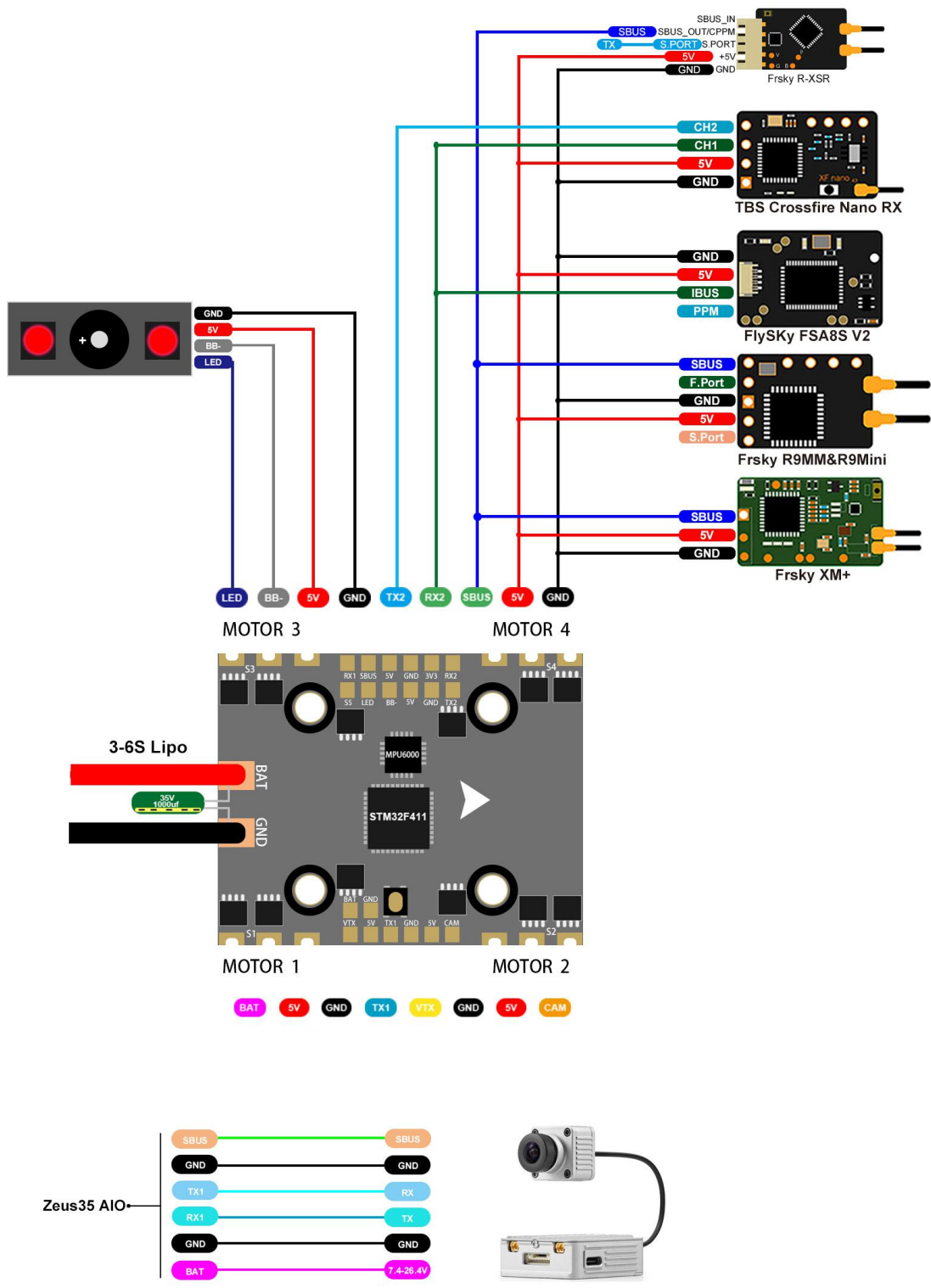
Package Included

| | |
|----------------------------------|-----------------|
| Sector150 HD FPV Racing Drone *1 | Accessory Bag*1 |
|----------------------------------|-----------------|

1. Product Specifications

| Product parameters | |
|--------------------|----------------------------------|
| Model | Sector150 HD FPV Racing Drone |
| Weight | 245.9g |
| Frame Kit | Sector150 Freestyle Frame Kit |
| Flight Controller | Zeus35 AIO Flight Controller |
| ESC | 35A 4in1 ESC |
| VTX | DJI Air Unit |
| Motor | 1408 kv3600 |
| Support receiver | SBUS .DSMX.i.BUS |
| Input Voltage | 3-4S Lipo |

2. Interface Description



3. Check the flight control drive

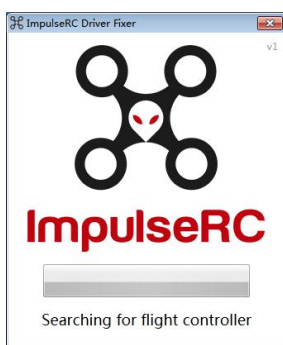
1. Long Press BOOT buttons.connect USB.The system automatically install the driver



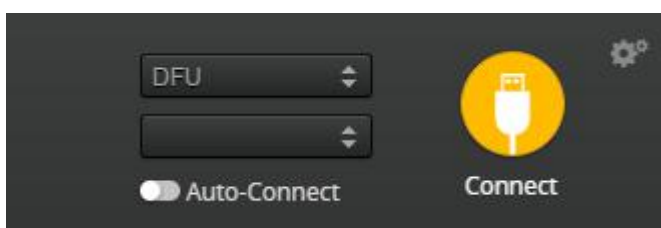
2.Driver cannot be installed, please download ImpulseRC_Driver_Fixer



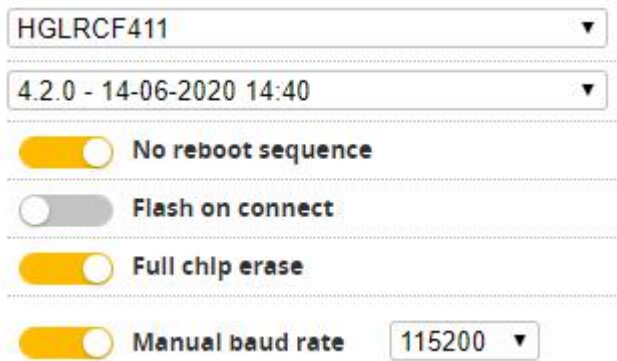
3.Double-click on the run(Plug in the flight controller to automatically install the driver)



4.open betafight configurator , enter DFU mode



5. Click **Firmware Flasher** Select firmware version



6. Click **Load Firmware [Online]** Load firmware. **Flash Firmware** Waiting for

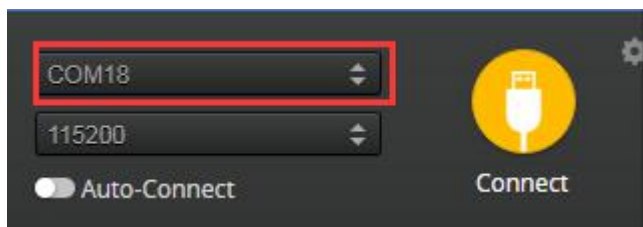
completion **Erasing ...** It will be prompted upon

completion. **Programming: SUCCESSFUL**

7. open betaflyght configurator  . Controller plugged into the

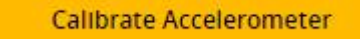
computer. Betaflight Automatically assigned port, click “Connect”

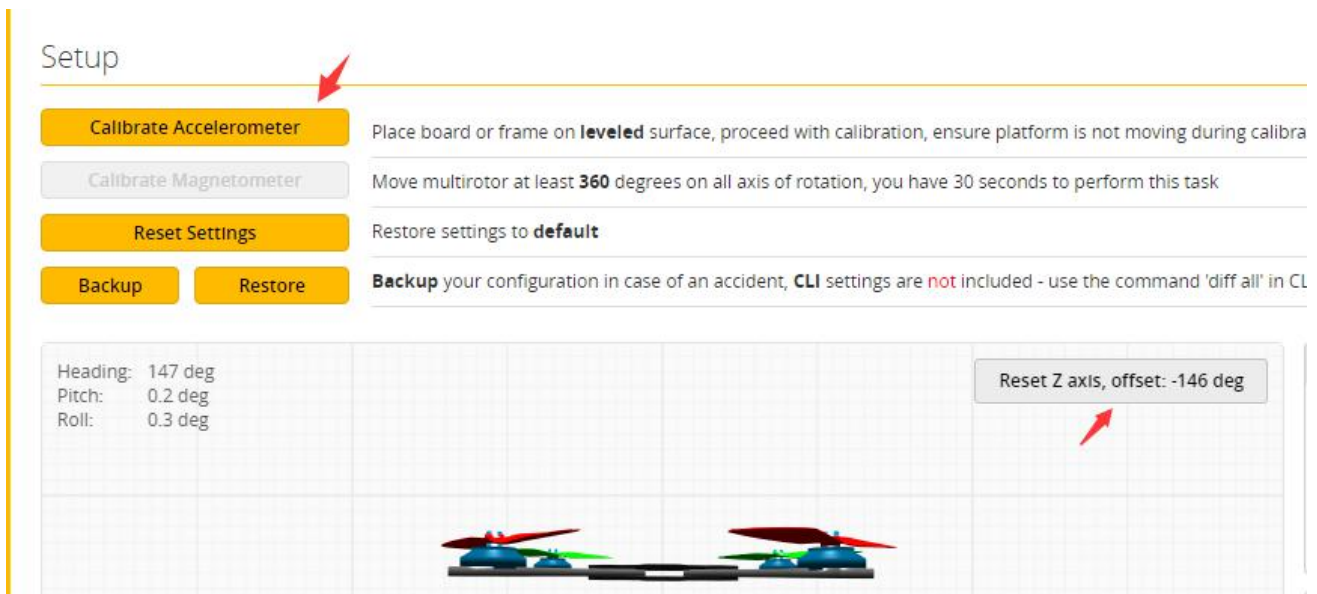
Enter setup interface (Different computer COM)



4. Calibration accelerometer

1. Put the aircraft horizontal and click “Reset Z axis”

Click again 





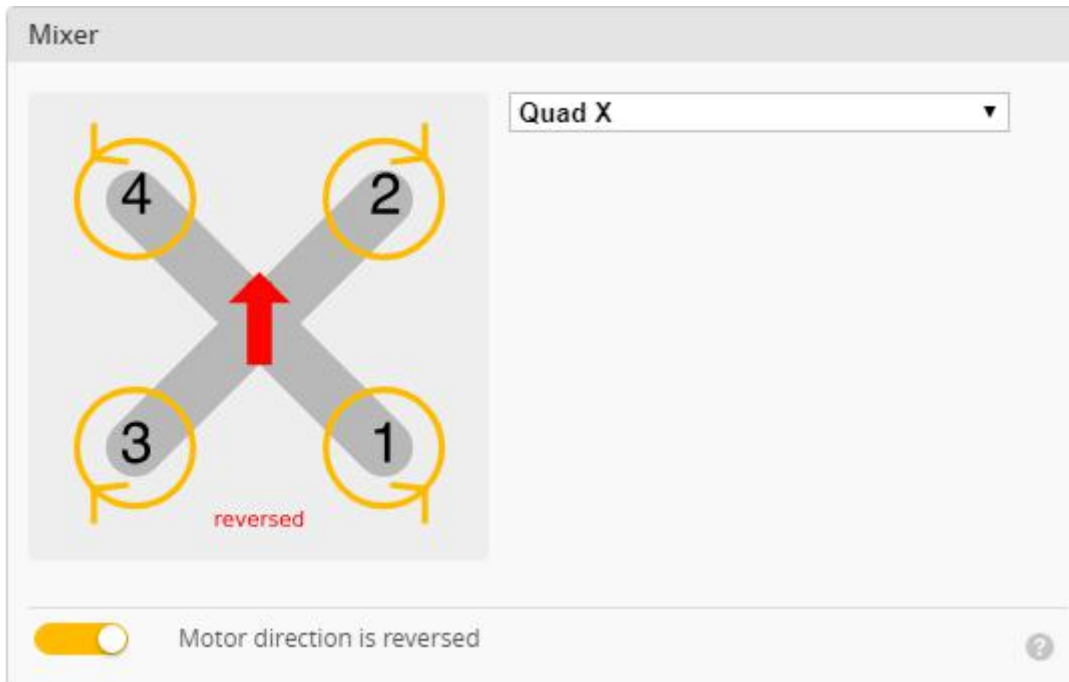
5. URAT serial port use


URAT1 uses VTX image transmission

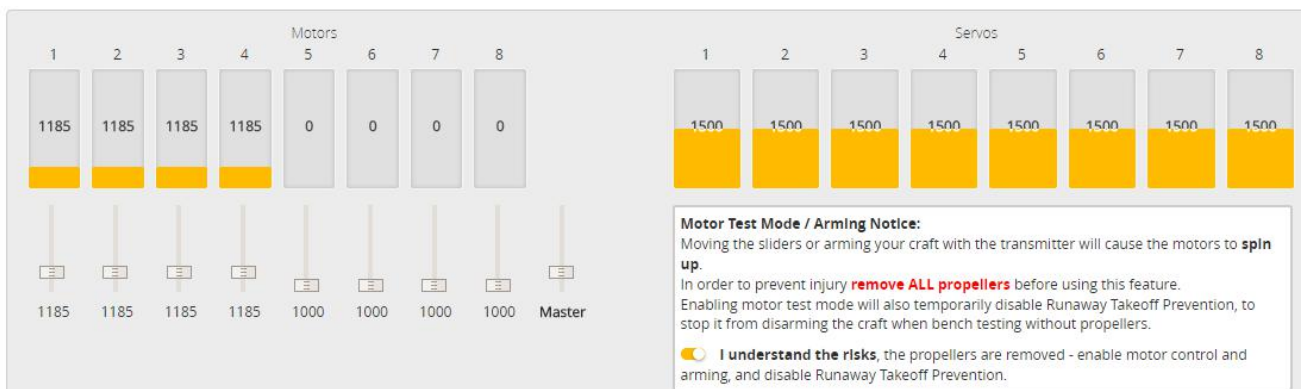
UART2 uses receiver telemetry

6. Select aircraft model

1. Click  Configuration  Select model

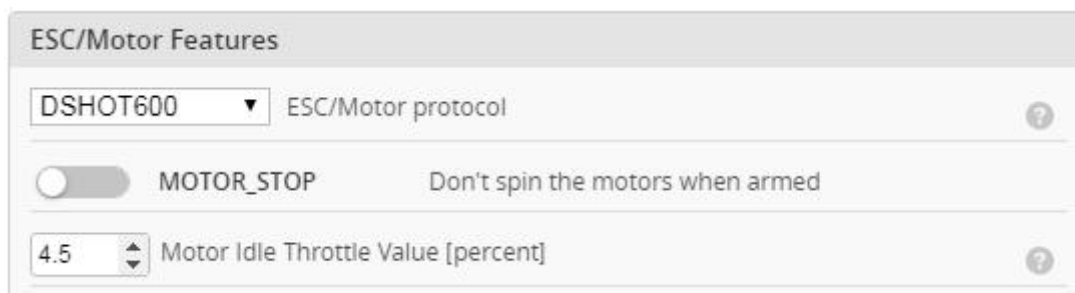


2. Click  Motors Click **“I understand the risks”** Push Master to check motor steering **“Master”** Steering can be changed at [BLHeliSuite](#)



7. Choose ESC protocol

1. Choose the right ESC protocol, the optional universal protocol DSHOT600.



ESC/Motor Features

DSHOT600 ESC/Motor protocol

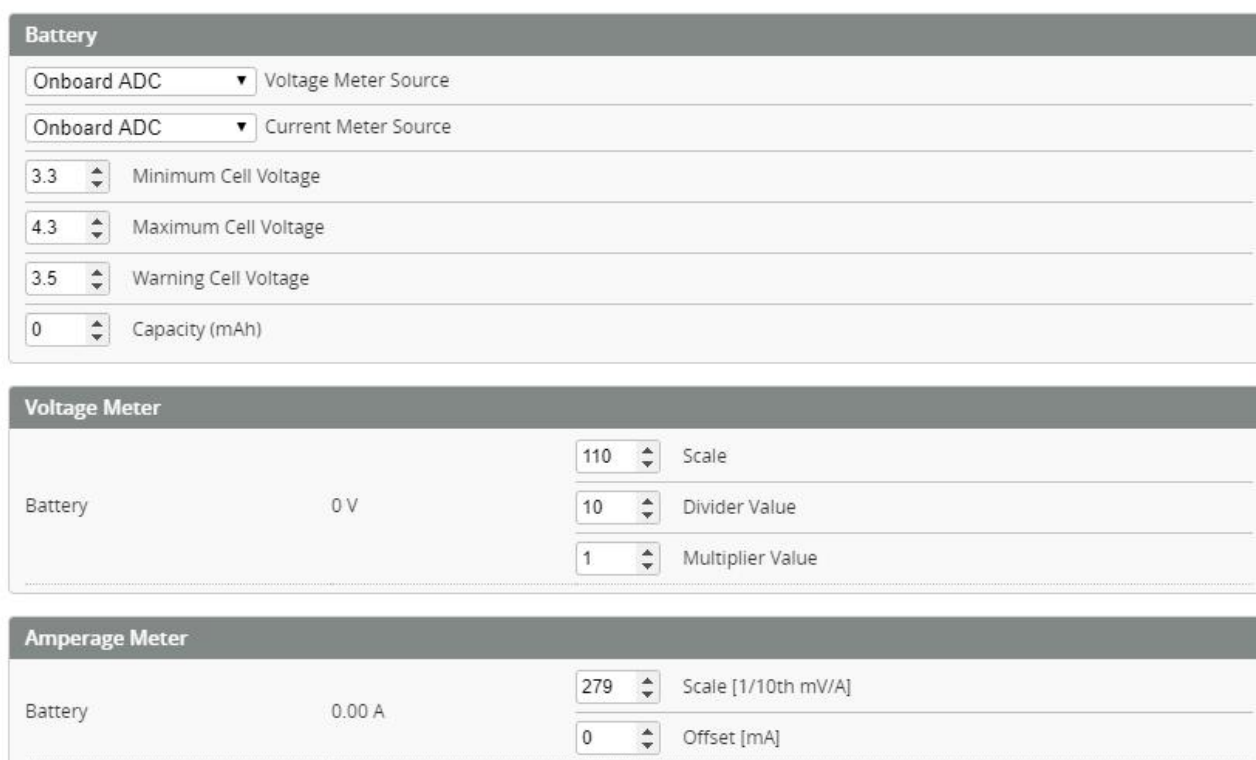
MOTOR_STOP Don't spin the motors when armed

4.5 Motor Idle Throttle Value [percent]

8. Voltage parameters setting

1. Click **Power & Battery** Setting parameters

Power & Battery



Battery

Onboard ADC Voltage Meter Source

Onboard ADC Current Meter Source

3.3 Minimum Cell Voltage

4.3 Maximum Cell Voltage

3.5 Warning Cell Voltage

0 Capacity (mAh)

Voltage Meter

Battery 0 V

110 Scale

10 Divider Value

1 Multiplier Value

Amperage Meter

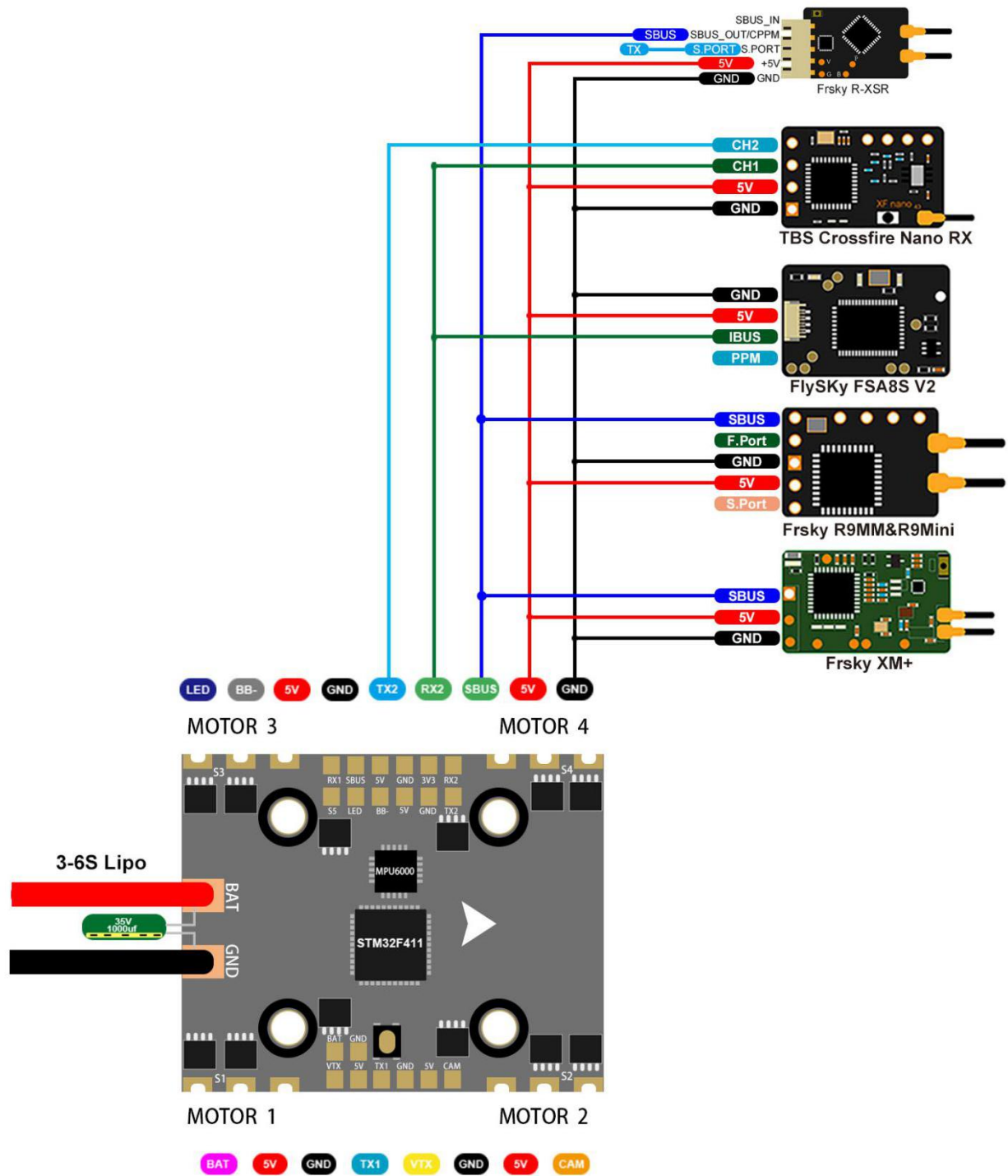
Battery 0.00 A

279 Scale [1/10th mV/A]

0 Offset [mA]

9. Setting up the receiver

1. Receiver connection diagram



2. Click **Ports** .have found “**UART2**” Open (**SBUS**) the receiver serial port

| Identifier | Configuration/MSP | Serial Rx | Telemetry Output | Sensor Input | Peripherals |
|------------|--|-------------------------------------|-------------------|-------------------|------------------------|
| USB VCP | <input checked="" type="checkbox"/> 115200 ▼ | <input type="checkbox"/> | Disabled ▼ AUTO ▼ | Disabled ▼ AUTO ▼ | Disabled ▼ AUTO ▼ |
| UART1 | <input type="checkbox"/> 115200 ▼ | <input type="checkbox"/> | Disabled ▼ AUTO ▼ | Disabled ▼ AUTO ▼ | VTX (IRC Tran ▼ AUTO ▼ |
| UART2 | <input type="checkbox"/> 115200 ▼ | <input checked="" type="checkbox"/> | Disabled ▼ AUTO ▼ | Disabled ▼ AUTO ▼ | Disabled ▼ AUTO ▼ |

3. Open (**i.BUS/DSMX**) receiver serial port

| Identifier | Configuration/MSP | Serial Rx | Telemetry Output | Sensor Input | Peripherals |
|------------|--|-------------------------------------|-------------------|-------------------|------------------------|
| USB VCP | <input checked="" type="checkbox"/> 115200 ▼ | <input type="checkbox"/> | Disabled ▼ AUTO ▼ | Disabled ▼ AUTO ▼ | Disabled ▼ AUTO ▼ |
| UART1 | <input type="checkbox"/> 115200 ▼ | <input type="checkbox"/> | Disabled ▼ AUTO ▼ | Disabled ▼ AUTO ▼ | VTX (IRC Tran ▼ AUTO ▼ |
| UART2 | <input type="checkbox"/> 115200 ▼ | <input checked="" type="checkbox"/> | Disabled ▼ AUTO ▼ | Disabled ▼ AUTO ▼ | Disabled ▼ AUTO ▼ |

4. Set the **SBUS** receiver

Receiver

Serial-based receiver (SPEKSAT, 5 ▼) 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

5. Set the **i.BUS** receiver

Receiver

Serial-based receiver (SPEKSAT, 5 ▼) Receiver Mode

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

IBUS ▼ Serial Receiver Provider

6. Set the **DSMX** receiver

Receiver

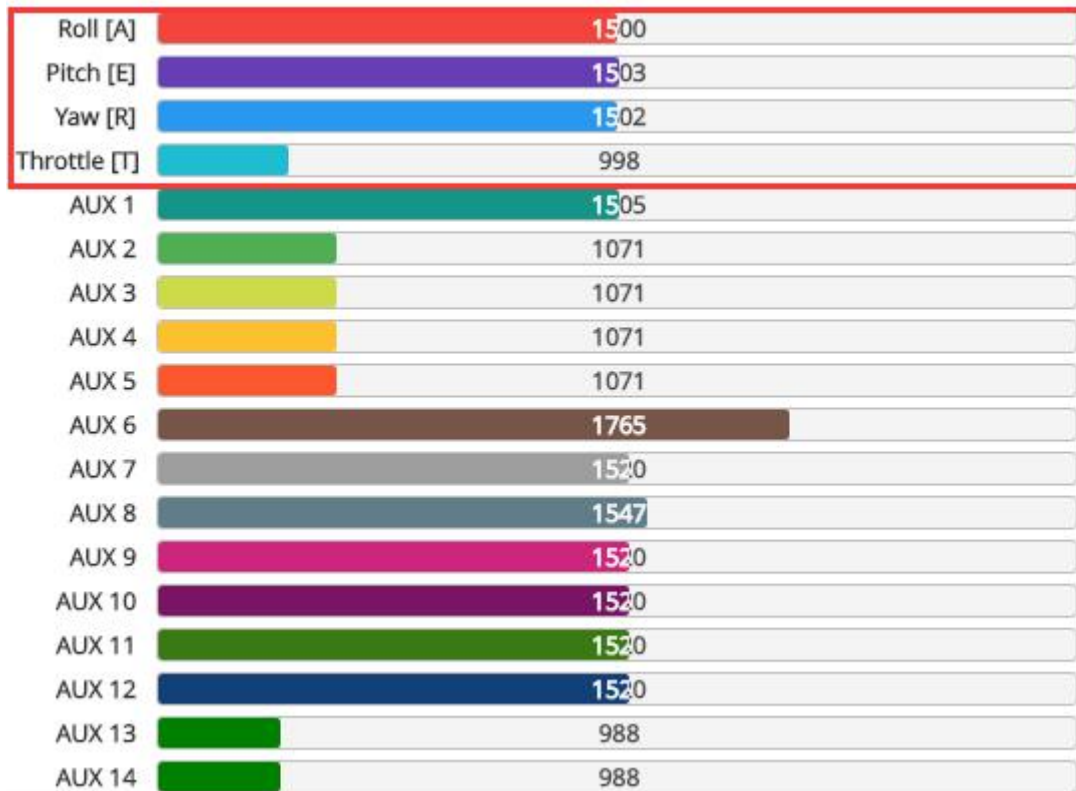
Serial-based receiver (SPEKSAT, 5 ▼) Receiver Mode

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

SPEKTRUM2048 ▼ Serial Receiver Provider

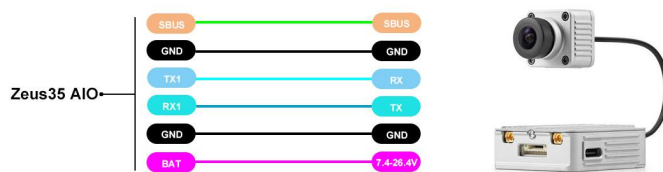
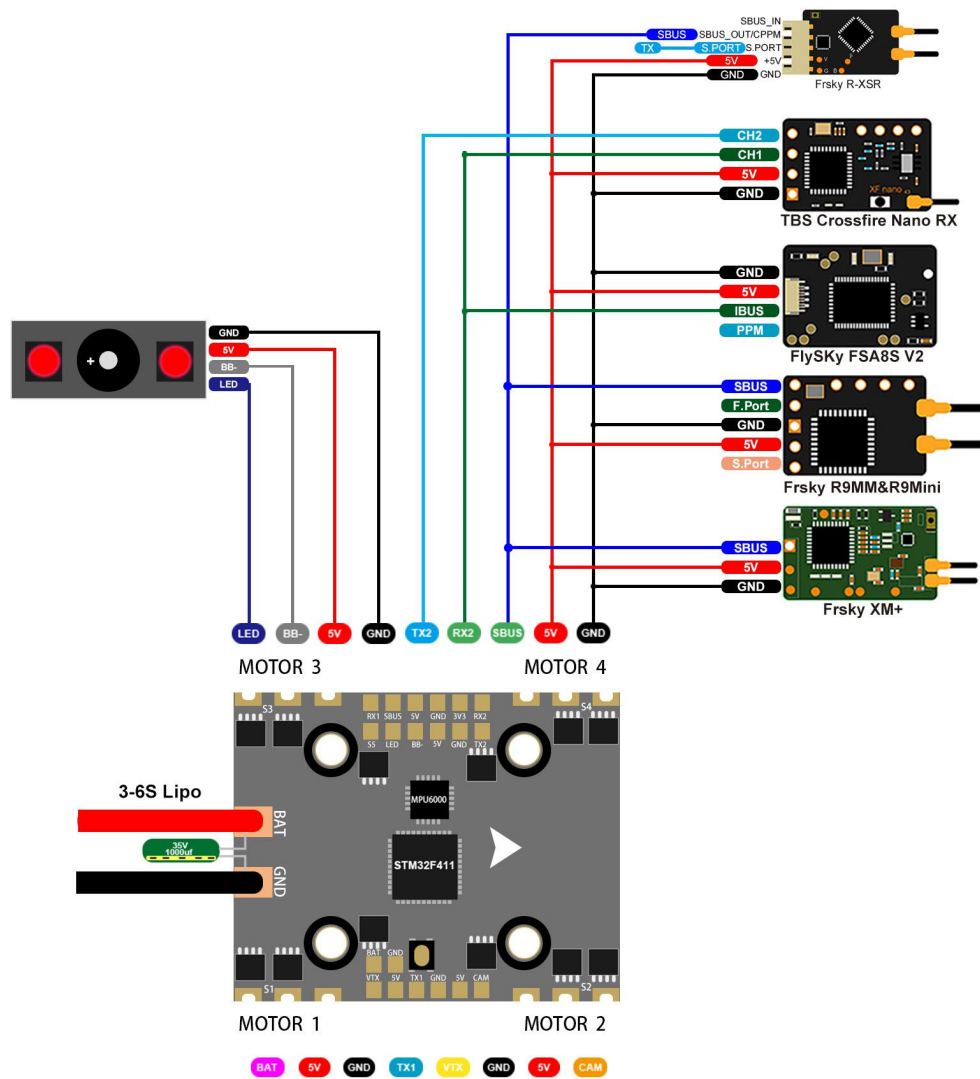
10. Check receiver signal

1. Click  Receiver Check the remote control output signal



11.VTX serial port use. VTX uses OSD smart audio


1.VTX connection diagram



2.VTX serial port opens. The protocol is selected according to its own VTX protocol.

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

12.Select flight mode startup mode

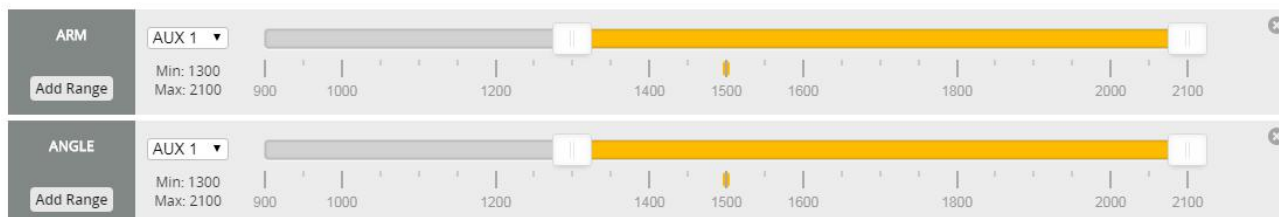
1. Click  Modes set up the function of remote control switch across the channel (below are for reference only)

Modes

WIKI

Use ranges to define the switches on your transmitter and corresponding mode assignments. A receiver channel that gives a reading between a range min/max will activate the mode. Remember to save your settings using the Save button.

Show/hide unused modes



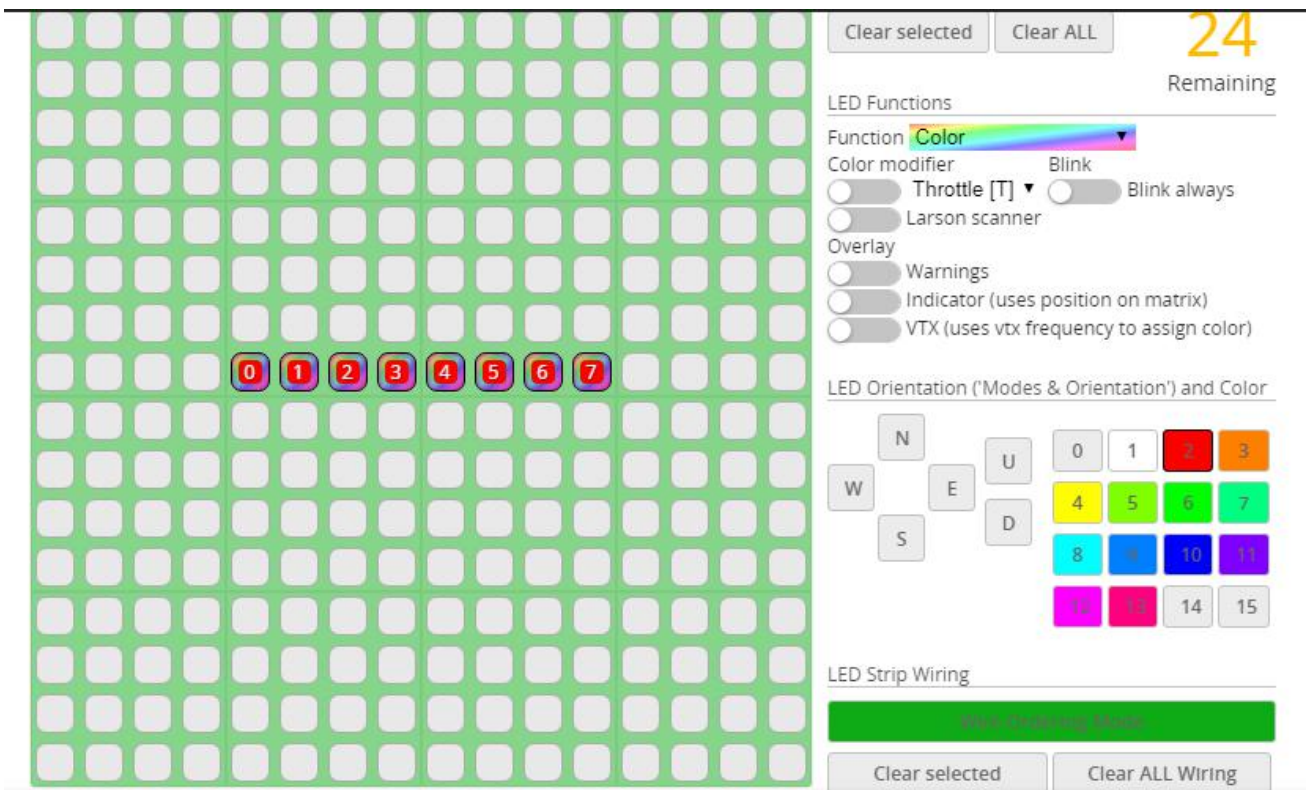
The screenshot shows the Modes configuration interface. It features two mode configuration sections: ARM and ANGLE. Each section has a dropdown menu set to 'AUX 1' and an 'Add Range' button. Below each dropdown is a range slider with a scale from 900 to 2100. The ARM section shows a range from 1300 to 2100. The ANGLE section also shows a range from 1300 to 2100. A yellow bar highlights the range between 1300 and 2100 on both sliders. A small orange dot is visible on the slider at the 1500 mark.

13.LED settings

1. Click  Configuration Turn on LED support



2. Click  LED Strip. Click  set according to need



Clear selected Clear ALL **24** Remaining

LED Functions
Function **Color**
Color modifier Blink
 Throttle [T] Blink always
 Larson scanner

Overlay
 Warnings
 Indicator (uses position on matrix)
 VTX (uses vtx frequency to assign color)

LED Orientation ('Modes & Orientation') and Color

| | | | | | |
|---|---|----|----|----|----|
| N | U | 0 | 1 | 2 | 3 |
| W | E | 4 | 5 | 6 | 7 |
| S | D | 8 | 9 | 10 | 11 |
| | | 12 | 13 | 14 | 15 |

LED Strip Wiring

Wire Ordering Mode

Clear selected Clear ALL Wiring

14. Troubleshooting

Warning:

Please read the cautions as follows, otherwise stability of your flight controller cannot be ensured, your flight controller will even get damaged.

- Keep focus on the polarity. Check carefully before power supply.
- Cut off the power when you connect, plug and pull anything.
- The refresh rate of PID and Gyroscope is up to 8K/8K.

after sales question:

1. After receiving the goods, it is found that the product can not be used normally. If the return to the factory is a quality problem, the repair service will be provided free of charge.
2. If the product is damaged due to improper operation, the repair service may be provided under the condition that the inspection can be repaired.
3. For domestic customers, please contact the after-sales service personnel.
For overseas customers, please contact the official website for after-sales service.

Product daily problems

1. When plugged in the battery, the aircraft does not pass the self-test

without "BBB" sound. There is only one sound.

Please check if the ESC agreement is correct

2.The spin of the aircraft keeps spinning

1. Please check if the propeller is correct

2. Please check if the motor direction is correct