



# HGLRC Sector132 FPV Racing Drone

4K

**Manual**



# Contents

Product Specifications.....	1
Interface Description.....	2
Check the flight control drive.....	3
Calibration accelerometer.....	4
URAT serial port use.....	5
Select aircraft model.....	6
Choose ESC/Motor protocol.....	7
Setting up the receiver.....	8
VTX serial port use. VTX uses OSD smart audio.....	9
GPS parameters setting.....	10
Check receiver signal.....	11
Select flight mode startup mode.....	12
OSD settings.....	13
LED settings.....	14
Troubleshooting.....	15



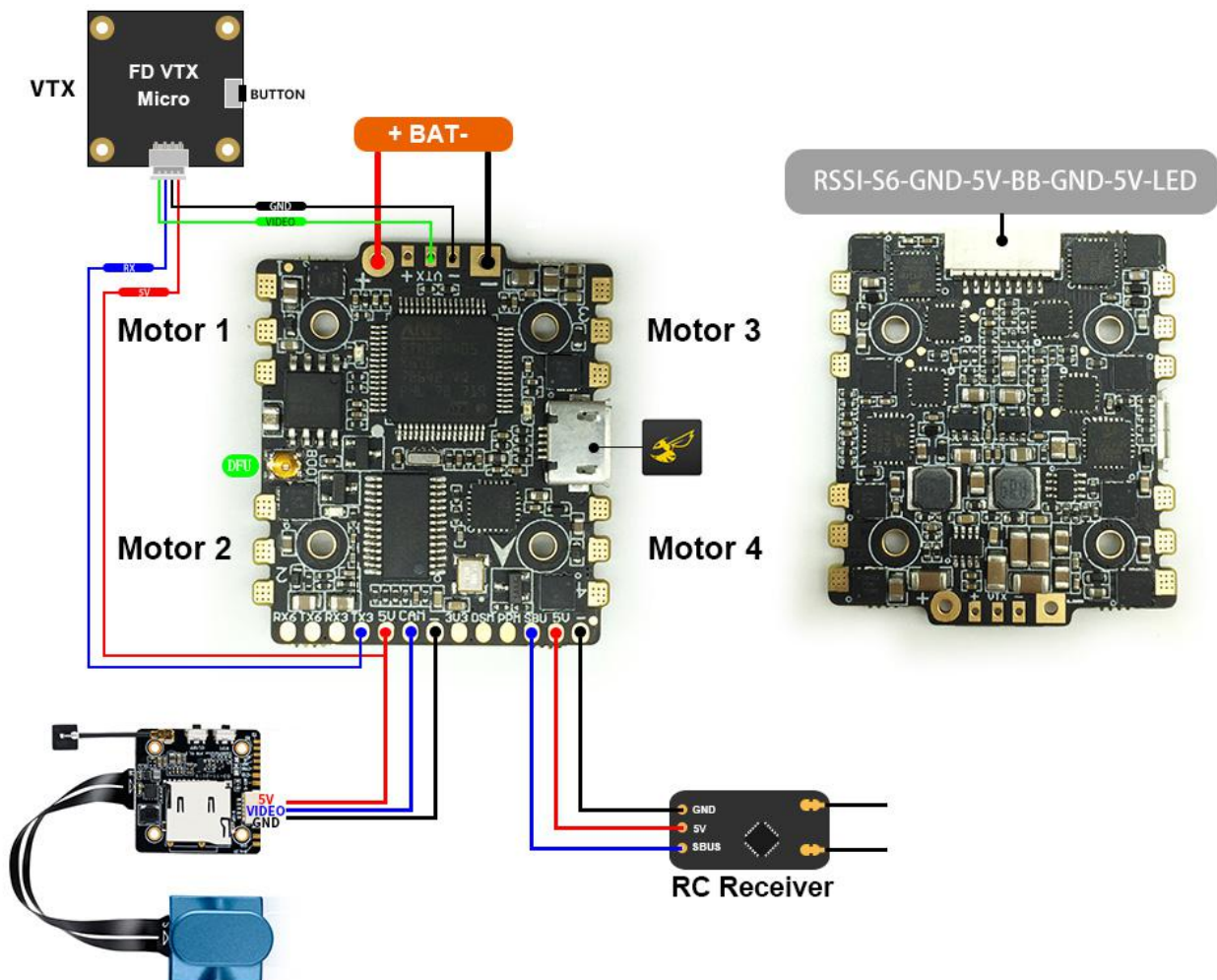
## Package Included

HGLRC Sector132 FPV Racing Drone 4K*1	
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# 1.Product Specifications

Product parameters	
Item Name	Sector132 FPV Racing Drone 4K
Frame Kit	Sector132 Frame Kit
Flight Controller	F4 Zeus AIO
VTX	FD VTX Micro
Camera	CADDX Tarsier 4K
Motor	FD1106 kv3800
Support Neceiver	SBUS .PPM .DSMX
Input Voltage	3-4S Lipo
Size	180mm x 150mm
Weight	153.7g (BNF)

# 2. Interface Description



## 3. Check the flight control drive

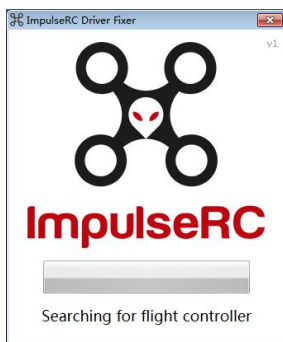
1. Long Press BOOT buttons.connect USB.The system automatically install the driver



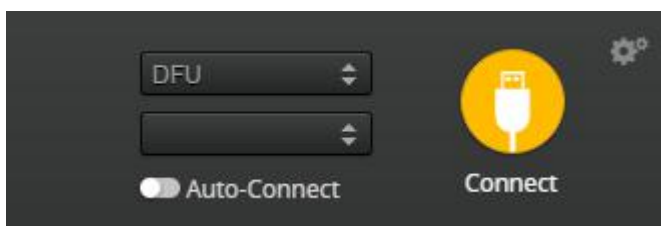
2.Driver cannot be installed, please download ImpulseRC\_Driver\_Fixer



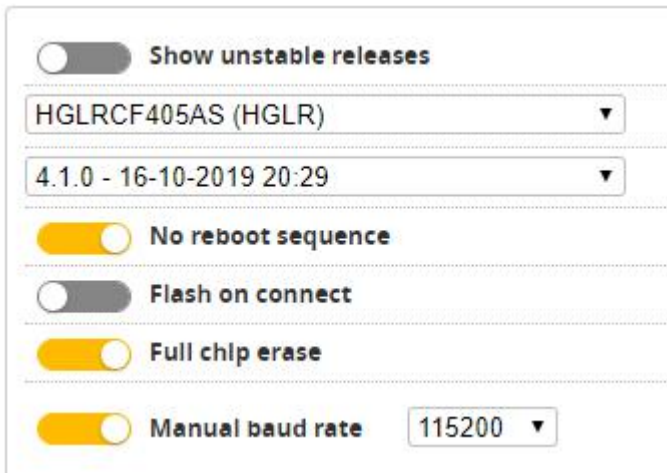
3.Double-click on the run(Plug in the flight controller to automatically install the driver)




4.open betafight configurator , enter DFU mode

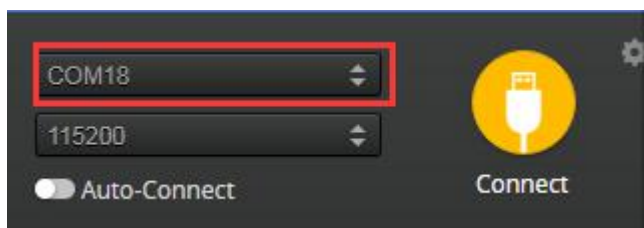


5. Click **Firmware Flasher** Select firmware version




6. Click **Load Firmware [Online]** Load firmware. **Flash Firmware** Waiting for completion **Erasing ...** It will be prompted upon completion. **Programming: SUCCESSFUL**

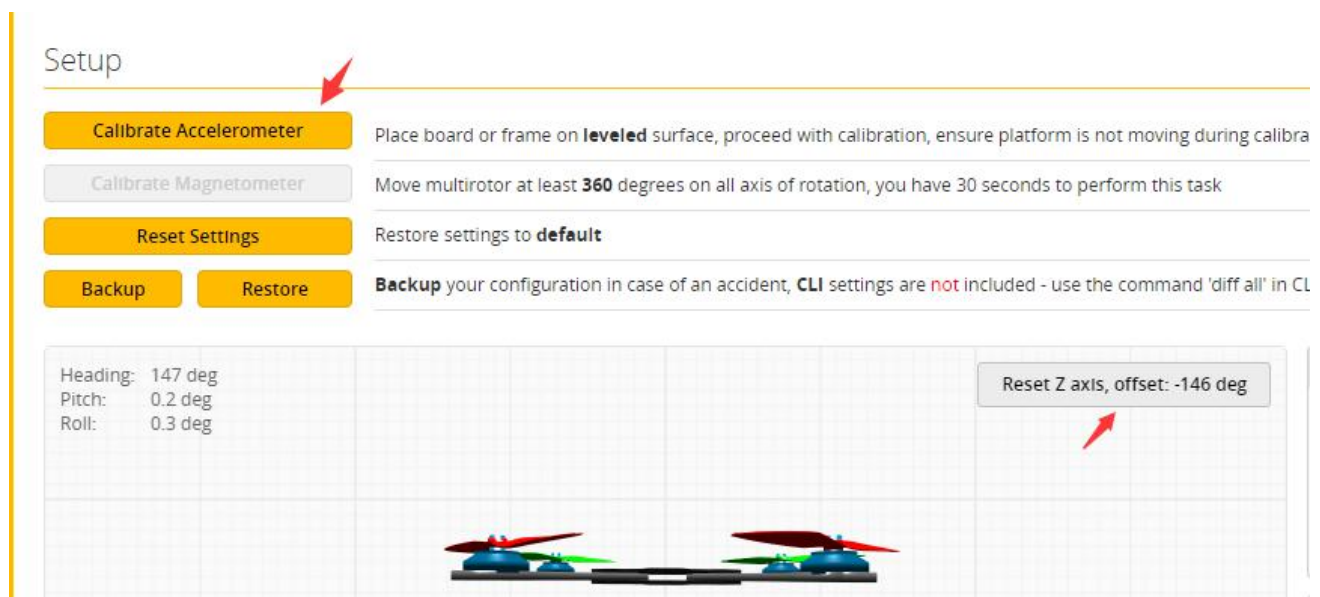
7. open betaflyght configurator  . Controller plugged into the computer. Betaflight Automatically assigned port, click “Connect” Enter setup interface (Different computer COM)



# 4. Calibration accelerometer

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

Click again 



The screenshot shows a web interface for aircraft calibration. At the top, the word "Setup" is displayed. Below it, there are four main sections:

- Calibrate Accelerometer** (highlighted with a red arrow): Place board or frame on **leveled** surface, proceed with calibration, ensure platform is not moving during calibra
- Calibrate Magnetometer**: Move multirotor at least **360** degrees on all axis of rotation, you have 30 seconds to perform this task
- Reset Settings**: Restore settings to **default**
- Backup** and **Restore**: **Backup** your configuration in case of an accident, **CLI** settings are **not** included - use the command 'diff all' in CL

Below these sections is a data table and a 3D model of a multirotor aircraft. The data table shows:

Heading:	147 deg
Pitch:	0.2 deg
Roll:	0.3 deg

The 3D model shows the aircraft from a top-down perspective. A red arrow points to a button labeled "Reset Z axis, offset: -146 deg" located in the top right corner of the 3D view area.


## 5.URAT serial port use

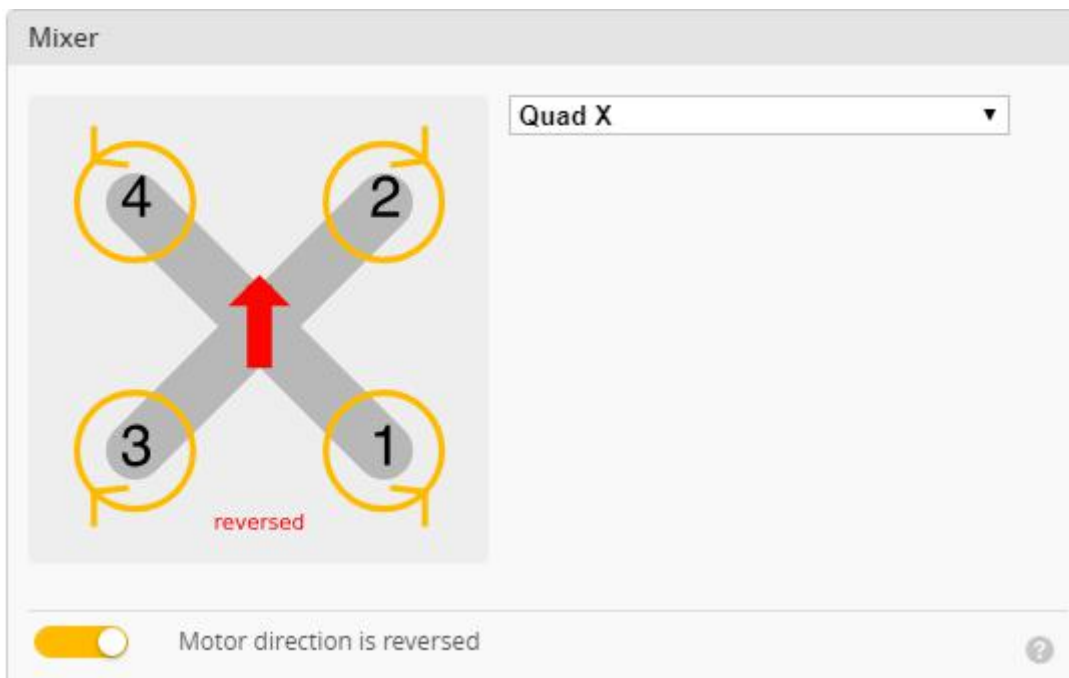
URAT1 uses the receiver

UART3 can use GPS/VTX


URAT6 can use ESC telemetry / GPS

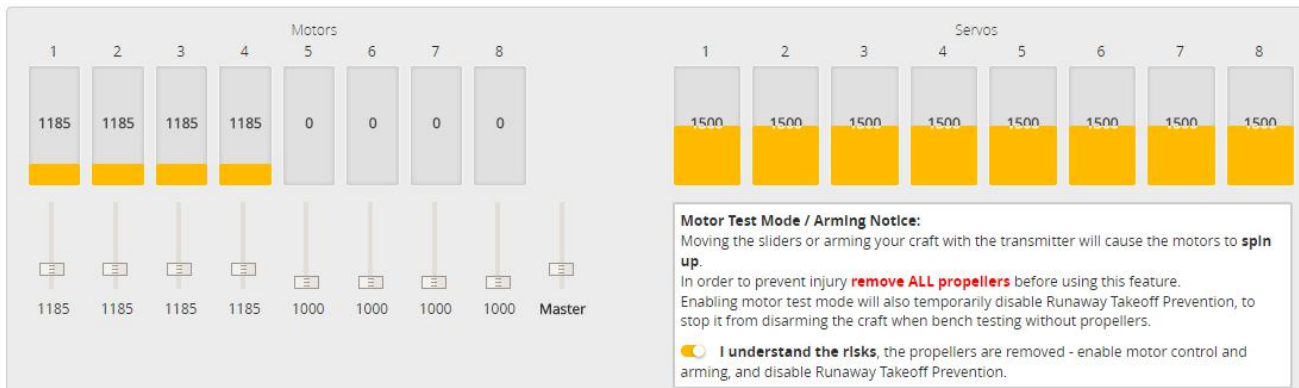
## 6.Select aircraft model

1.Click  Configuration Select model





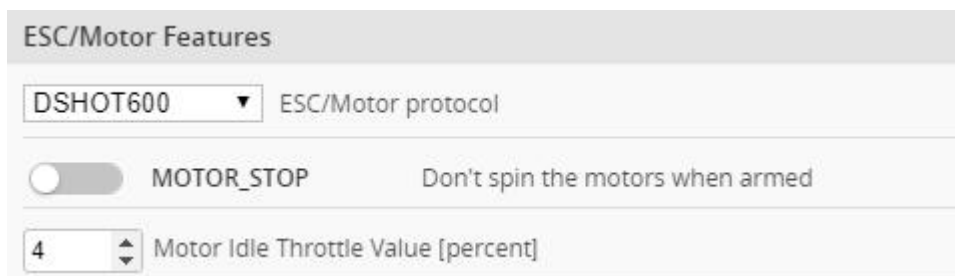
2. Click  Click “**I understand the risks**” Push Master to check motor steering “**Master**” Steering can be changed at [BLHeliSuite](#)



The screenshot shows the BLHeliSuite interface for configuring motors and servos. On the left, under the 'Motors' section, there are eight motor channels. Channels 1-4 are set to 1185, and channels 5-8 are set to 0. Below the motor channels are sliders and a 'Master' button. On the right, under the 'Servos' section, there are eight servo channels, all set to 1500. A 'Motor Test Mode / Arming Notice' box is visible, containing the following text: 'Moving the sliders or arming your craft with the transmitter will cause the motors to spin up. In order to prevent injury remove ALL propellers before using this feature. Enabling motor test mode will also temporarily disable Runaway Takeoff Prevention, to stop it from disarming the craft when bench testing without propellers.  I understand the risks, the propellers are removed - enable motor control and arming, and disable Runaway Takeoff Prevention.'

## 7. Choose ESC/Motor protocol

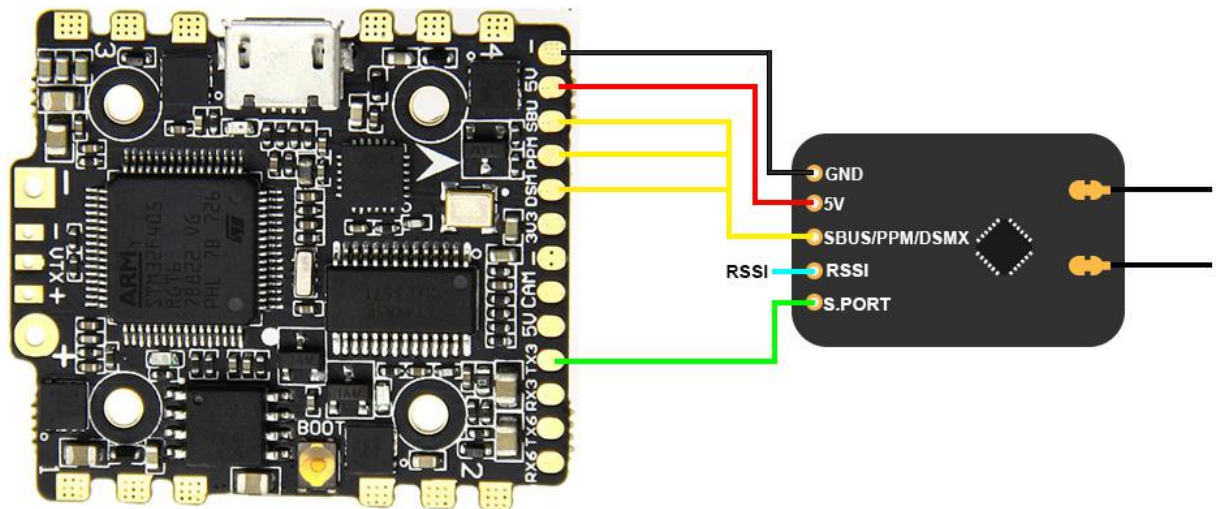
1. Choose the correct ESC / Motor protocol, recommends using DSHT600



The screenshot shows the 'ESC/Motor Features' settings in BLHeliSuite. The 'ESC/Motor protocol' is set to 'DSHOT600'. The 'MOTOR\_STOP' toggle is turned off, with the label 'Don't spin the motors when armed'. The 'Motor Idle Throttle Value [percent]' is set to 4.

# 8. Setting up the receiver

## 1. Receiver connection diagram



2. Click  have found “UART1” Open 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 checked="" type="checkbox"/>	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾
UART3	<input type="checkbox"/> 115200 ▾	<input type="checkbox"/>	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾	IRC Tramp ▾ AUTO ▾
UART6	<input type="checkbox"/> 115200 ▾	<input type="checkbox"/>	Disabled ▾ AUTO ▾	GPS ▾ 9600 ▾	Disabled ▾ AUTO ▾

### 3. 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

### 4. Set the PPM receiver

**Receiver**

PPM RX input ▼ Receiver Mode

### 5. 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

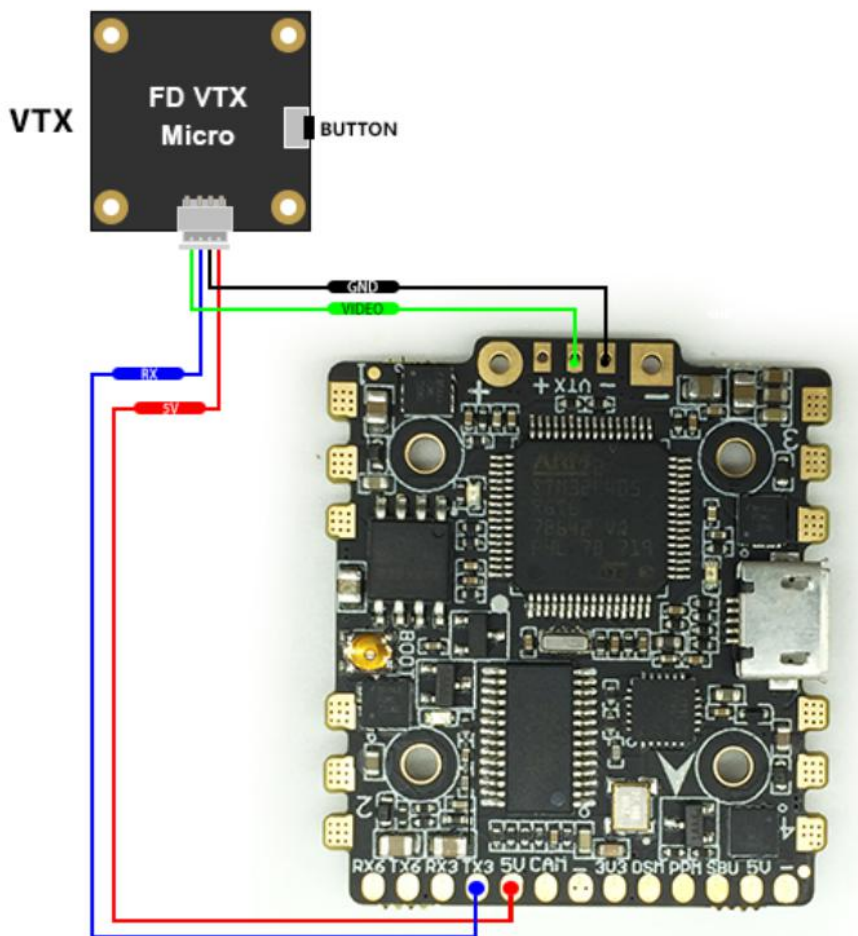
### 6. Turn on the receiver telemetry serial port Function on

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 checked="" type="checkbox"/>	Disabled ▼ AUTO ▼	Disabled ▼ AUTO ▼	Disabled ▼ AUTO ▼
UART3	<input type="checkbox"/> 115200 ▼	<input type="checkbox"/>	SmartPort ▼ AUTO ▼	Disabled ▼ AUTO ▼	Disabled ▼ AUTO ▼
UART6	<input type="checkbox"/> 115200 ▼	<input type="checkbox"/>	Disabled ▼ AUTO ▼	Disabled ▼ AUTO ▼	Disabled ▼ AUTO ▼

**TELEMETRY** Telemetry output

# 9.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.

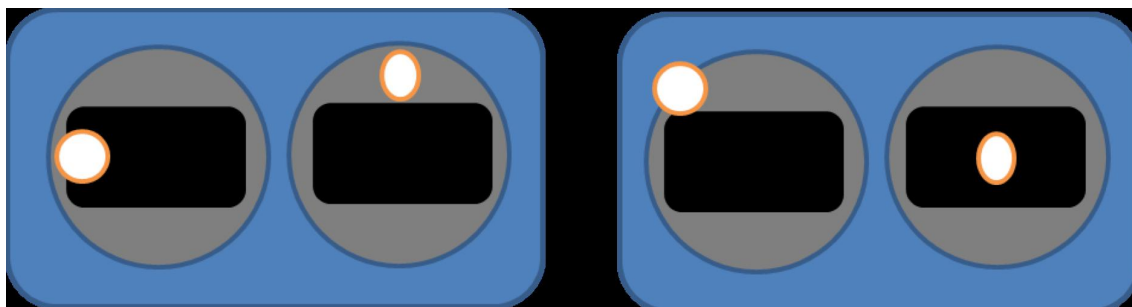
Identifier	Configuration/MSP	Serial Rx	Telemetry Output	Sensor Input	Peripherals
USB VCP	<input checked="" type="checkbox"/> 115200 ▾	<input type="checkbox"/>	Disabled ▾   AUTO ▾	Disabled ▾   AUTO ▾	Disabled ▾   AUTO ▾
UART1	<input type="checkbox"/> 115200 ▾	<input checked="" type="checkbox"/>	Disabled ▾   AUTO ▾	Disabled ▾   AUTO ▾	Disabled ▾   AUTO ▾
UART3	<input type="checkbox"/> 115200 ▾	<input type="checkbox"/>	Disabled ▾   AUTO ▾	Disabled ▾   AUTO ▾	Disabled ▾   AUTO ▾
UART6	<input type="checkbox"/> 115200 ▾	<input type="checkbox"/>	Disabled ▾   AUTO ▾	Disabled ▾   AUTO ▾	<div style="border: 1px solid red; padding: 2px;">           Disabled ▾            Disabled            Blackbox logging            TBS SmartAudio            IRC Tramp            RunCam Device            Benewake LIDAR         </div>

### 3. Use OSD to adjust VTX

which displays information like battery voltage and mAh consumed while you fly. In addition, the Betaflight OSD can be used to configure the quadcopter, making in-field adjustments and tuning more convenient.

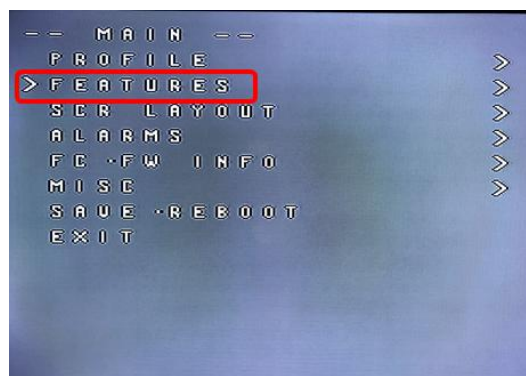
MODE2

MODE1



The graphics above show the stick command to bring up the OSD menu. The stick command is: throttle centered, yaw left, pitch forward. The exact stick command therefore depends on which mode your transmitter sticks are in.

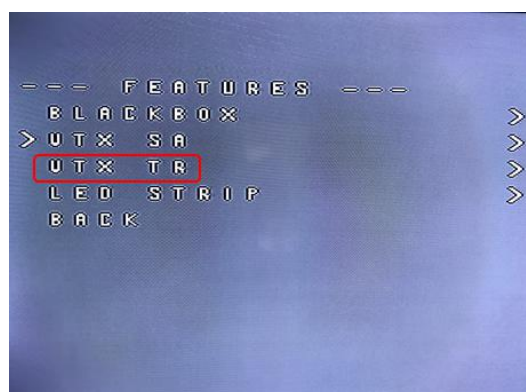
In the OSD menu, use pitch up/down to move the cursor between menu items. When a menu option has a > symbol to the right of it, this indicates that it contains a sub-menu. Roll-right will enter the sub-menu. For example, in the screen to the right, moving the cursor to “Features” and then moving the roll stick to the right will enter the “Features” sub-menu.



If you are using a video transmitter that supports remote configuration, enter the “Features” menu to configure the vTX. From there, enter either “VTX SA” if you are using SmartAudio (TBS Unify) or “VTX TR” if you are using IRC Tramp Telemetry.

To adjust PIDs, rates, and other tuning-related parameters, enter the “Profile” sub-menu.

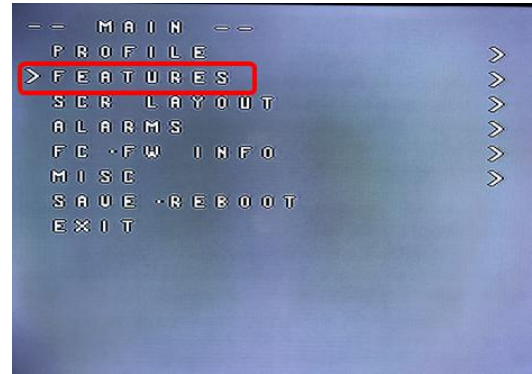
In the “Scr Layout” sub-menu, you can move the OSD elements (like battery voltage, mAh, and so forth) around on the screen.



The “Alarms” sub-menu lets you control when the OSD will try to alert you that battery voltage is too low or mAh consumed is too high.

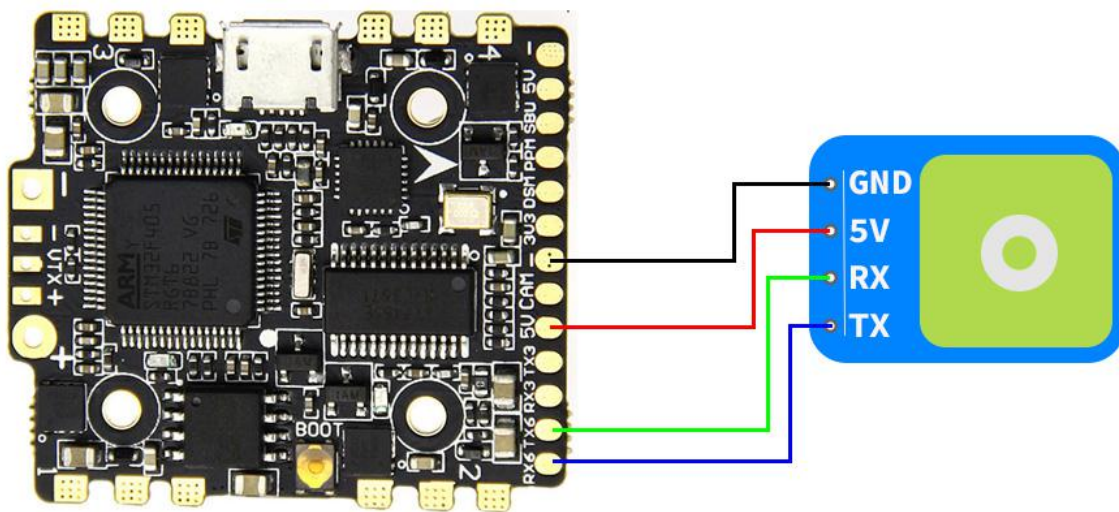
When a parameter can be modified, the parameter's current value will be shown on the right-hand side of the screen. In this case, roll left/right will adjust the parameter up and down.

The screen to the right shows the current vTX settings. From here, you can change the frequency band, channel, and power level of the video transmitter. After making the changes, move the cursor to "Set" and press roll-right to confirm the settings.



# 10.GPS parameters setting

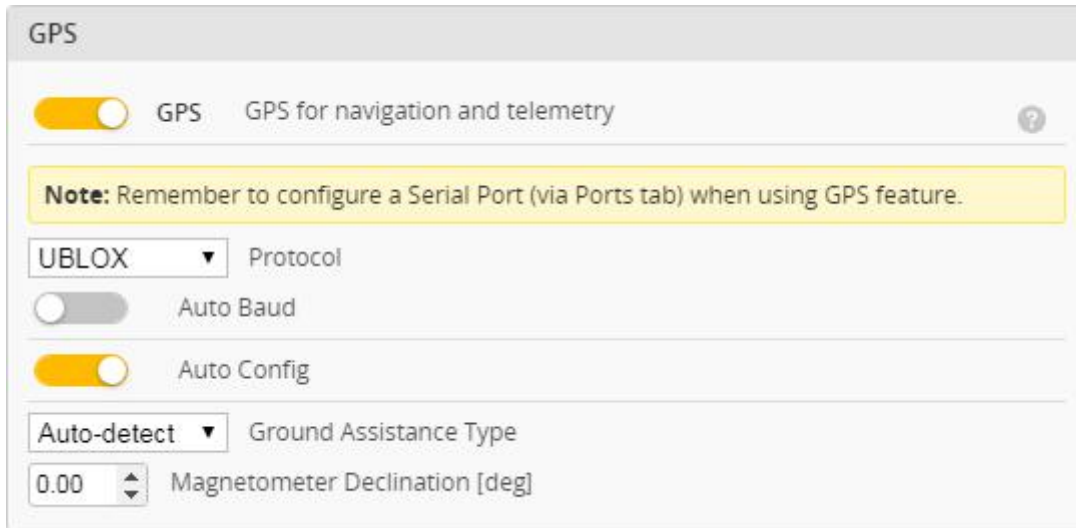
## 1. GPS connection diagram



## 2. Open the GPS serial port

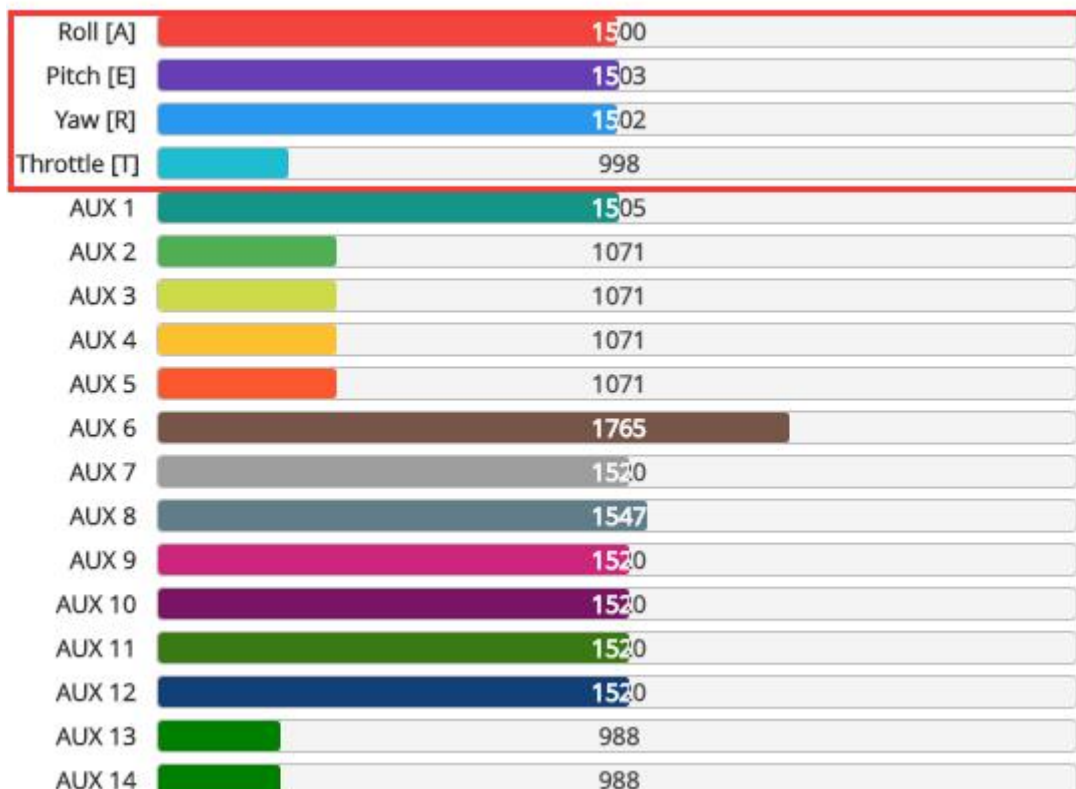
Identifier	Configuration/MSP	Serial Rx	Telemetry Output	Sensor Input	Peripherals
USB VCP	<input checked="" type="checkbox"/> 115200 ▾	<input type="checkbox"/>	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾
UART1	<input type="checkbox"/> 115200 ▾	<input checked="" type="checkbox"/>	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾
UART3	<input type="checkbox"/> 115200 ▾	<input type="checkbox"/>	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾
UART6	<input type="checkbox"/> 115200 ▾	<input type="checkbox"/>	Disabled ▾ AUTO ▾	<b>GPS ▾ 9600 ▾</b>	Disabled ▾ AUTO ▾

3. When using the GPS function, remember to configure the serial port (via the Ports tab).




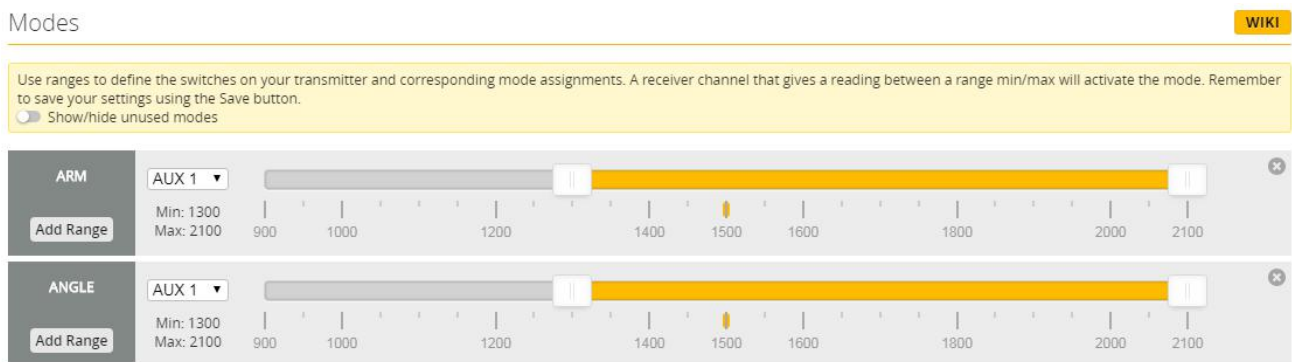
# 11. Check receiver signal

1. Click  Receiver. Check the remote control output signal




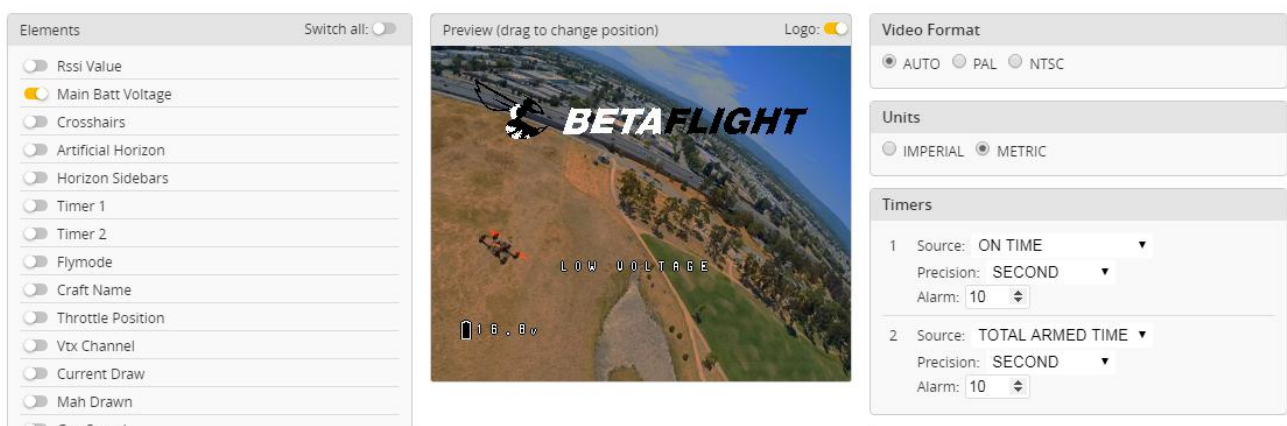
# 12. Select flight mode startup mode

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



# 13. OSD settings

1. Click  OSD the OSD Settings, according to the need to choose, drag the OSD schematic diagram of the parameters can be adjusted.



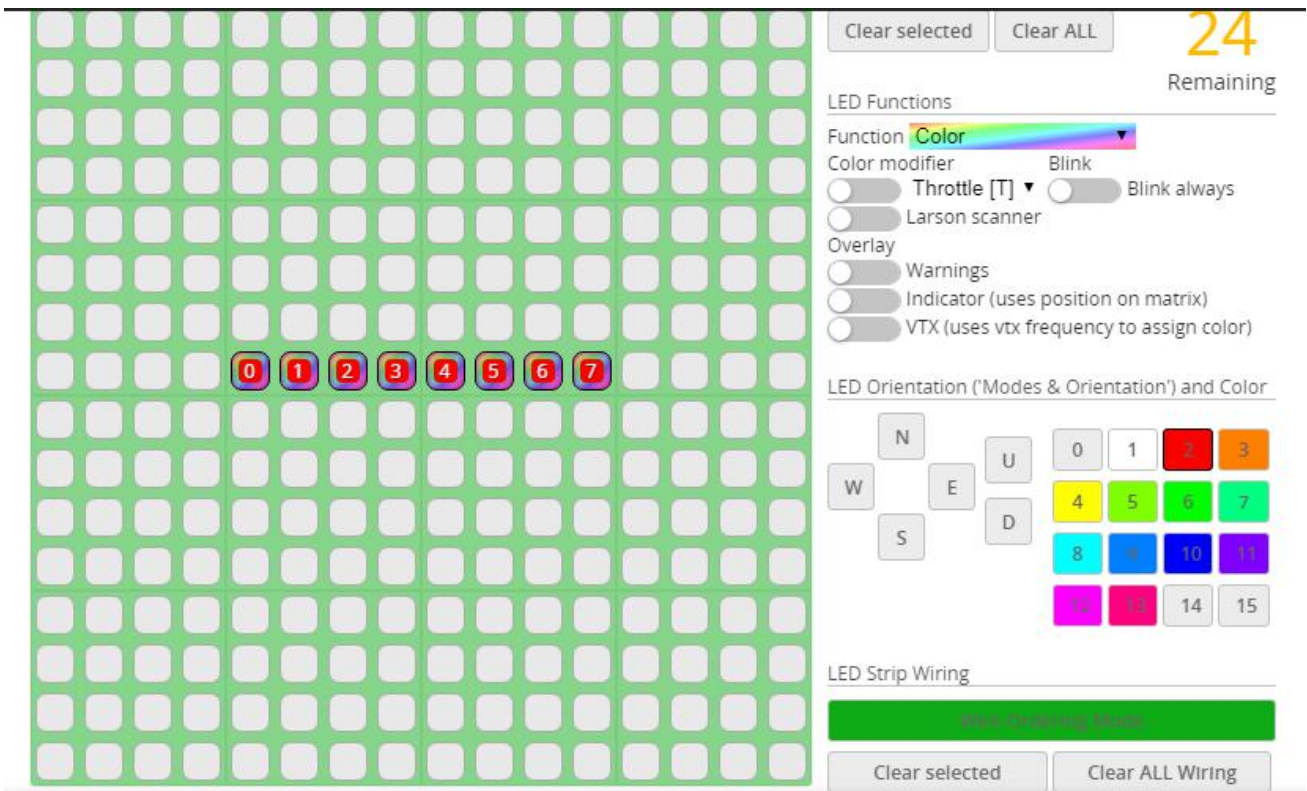


# 14.LED settings

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

# 15. 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 32K/16K.

## 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.OSD garbled:

If you find garbled characters, please open Betaflight, click “OSD” .and click “Font Manager” clicks on “Upload Font” to update

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

### 3.The spin of the aircraft keeps spinning

1. Please check if the propeller is correct
2. Please check if the motor direction is correct