

# HGLRC

# Zeus35

# 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 protocol.....	7
Voltage and current parameters setting.....	8
Setting up the receiver.....	9
VTX serial port use. VTX uses OSD smart audio.....	10
Check receiver signal.....	11
Select flight mode startup mode.....	12
OSD settings.....	13
LED settings.....	14
Troubleshooting.....	15

.....

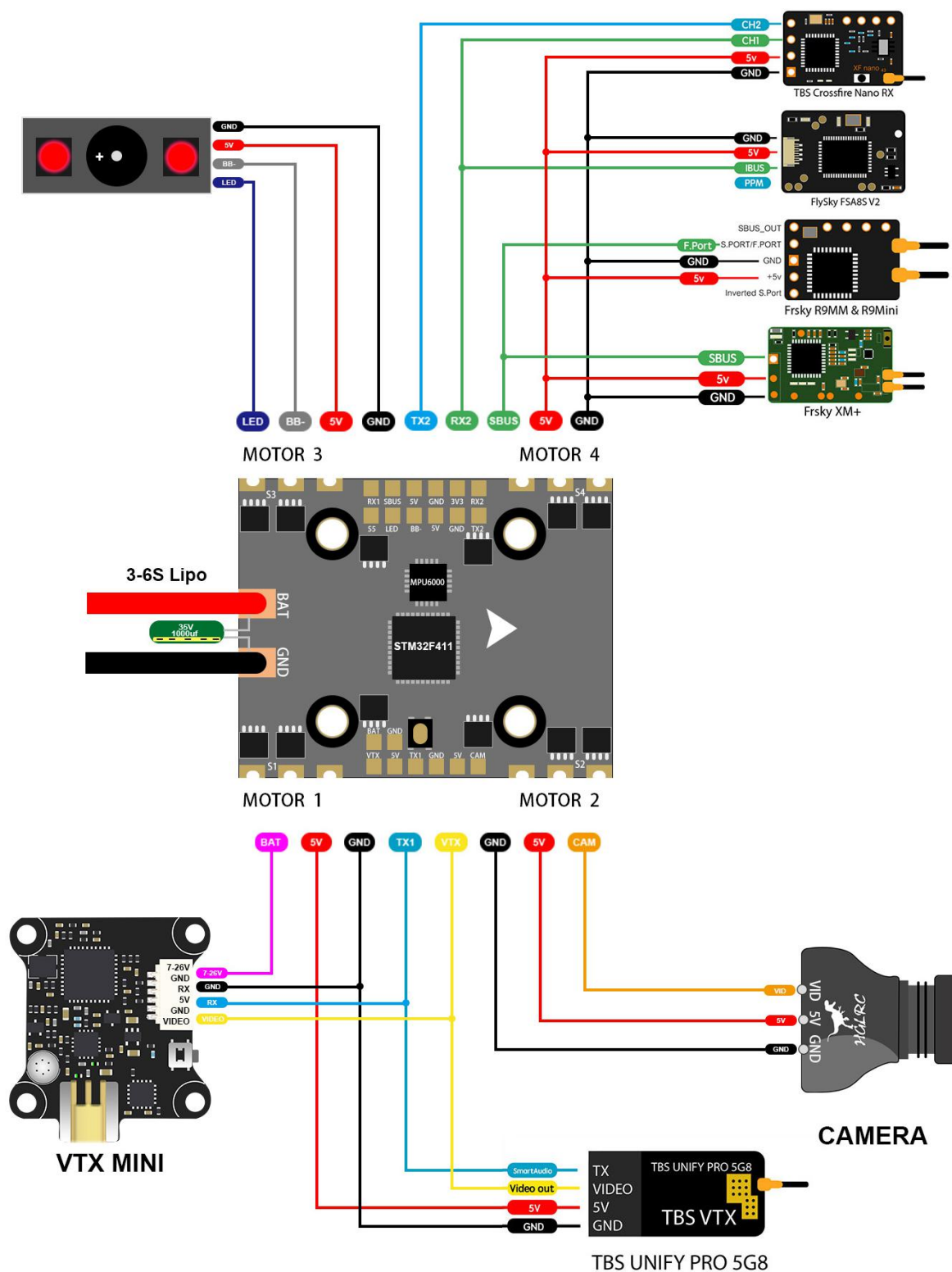
## Package Included

HGLRC Zeus35 FC*1	
-------------------	--

# 1.Product Specifications

Product parameters	
Model	Zeus35
Weight	9.8g
Input Voltage	3-6S
Usage	for 100mm-250mm Frame Kit
Installing Hole	20x20mm/M3
Dimensions	40x32mm
FC Firmware	BF HGLRCF411(HGLR)
CPU	STM32F411
MPU	MPU6000
BEC	5V/2A
BlackBox	16M
UARTS	UART1 VTX UART2 SBUS/iBUS/DSM/CRSF/R9MM
ESC Firmware	BLS
Current Sensor	Support
Constant Current	35A
Peak Current	40A (10s)

## 2.Interface Description



## 3. Check the flight control drive

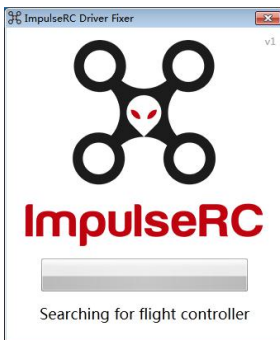
1. Long Press BOOT buttons.connect USB.The system automatically install the driver



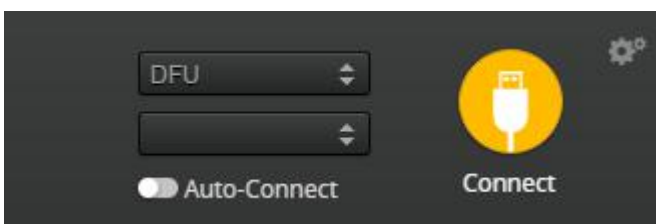
2.Driver cannot be installed, please download ImpulseRC\_Driver\_Fixer



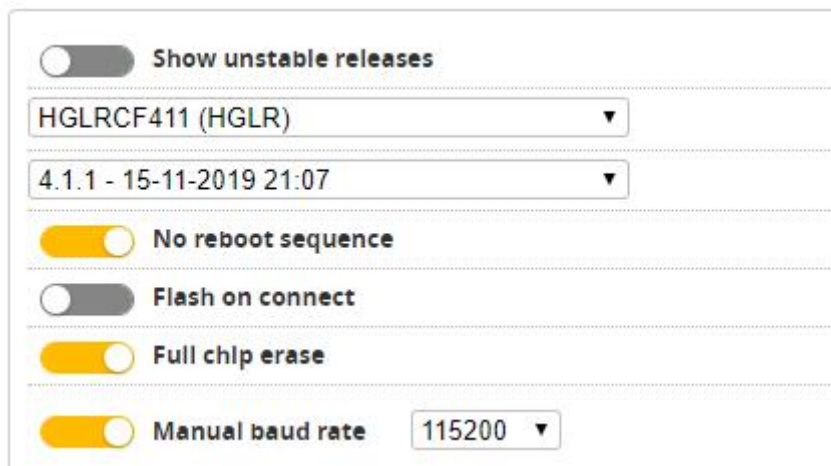
3.Double-click on the run(Plug in the flight controller to automatically install the driver)




4.open betafight configurator , enter DFU mode

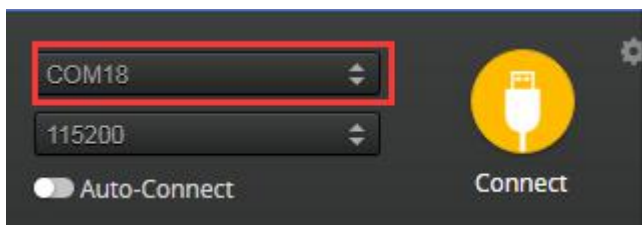


5. Click **Firmware Flasher** Select firmware version



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

Calibrate Accelerometer

Setup

Calibrate Accelerometer

Calibrate Magnetometer

Reset Settings

BackupRestore

Place board or frame on **leveled** surface, proceed with calibration, ensure platform is not moving during calibra


Move multirotor at least **360** degrees on all axis of rotation, you have 30 seconds to perform this task

Restore settings to **default**

**Backup** your configuration in case of an accident, **CLI** settings are **not** included - use the command 'diff all' in CL

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

Reset Z axis, offset: -146 deg



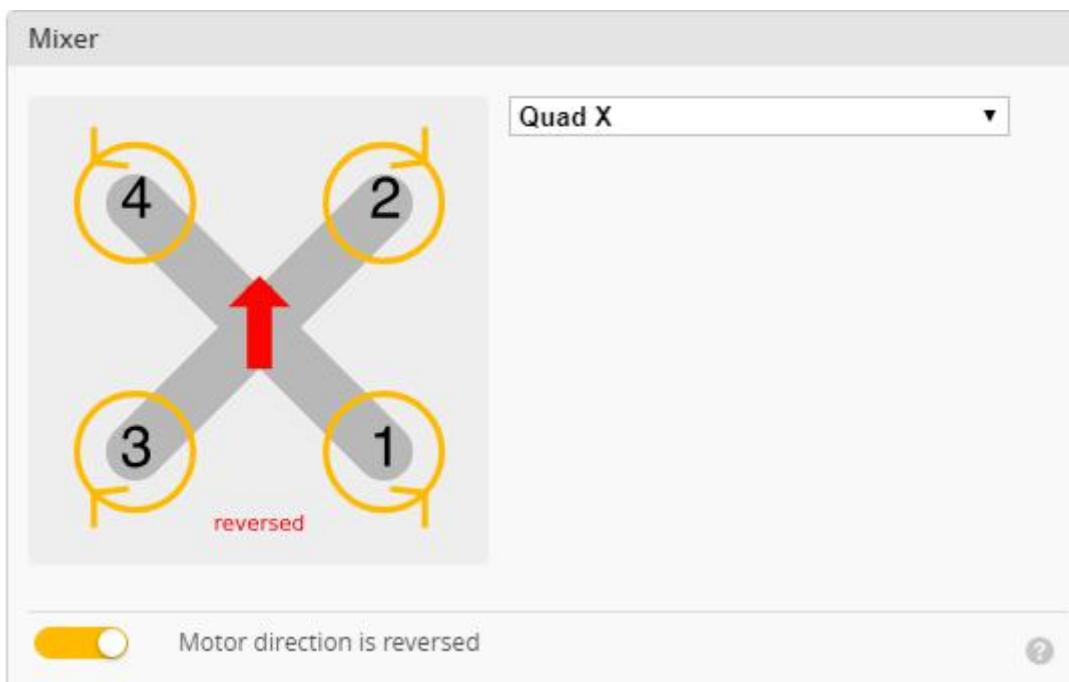
## 5.URAT serial port use


1.URAT1 uses VTX image transmission

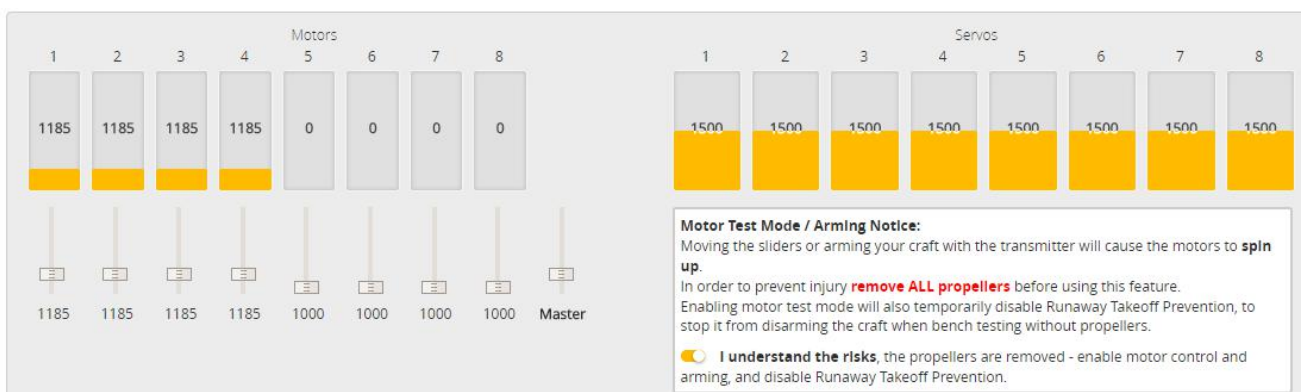
2.URAT2 uses Receiver (SBUS/iBUS/DSM/CRSF/R9MM)

## 6.Select aircraft model

1.Click  Configuration Select model



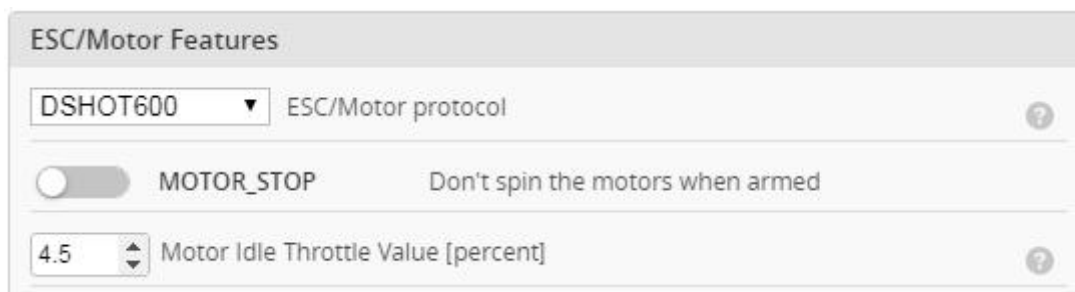
2.Click  Motors Click “**I understand the risks**” Push Master to check motor steering “**Master**” Steering can be changed at [BLHeliSuite](http://BLHeliSuite)





## 7. Choose ESC protocol

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



ESC/Motor Features

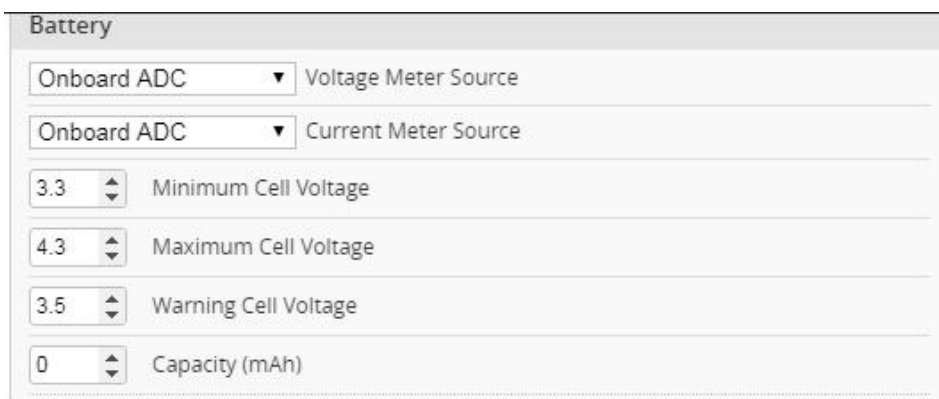
DSHOT600 ESC/Motor protocol

☐ MOTOR\_STOP Don't spin the motors when armed

4.5 Motor Idle Throttle Value [percent]

## 8. Voltage and current parameters setting

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



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

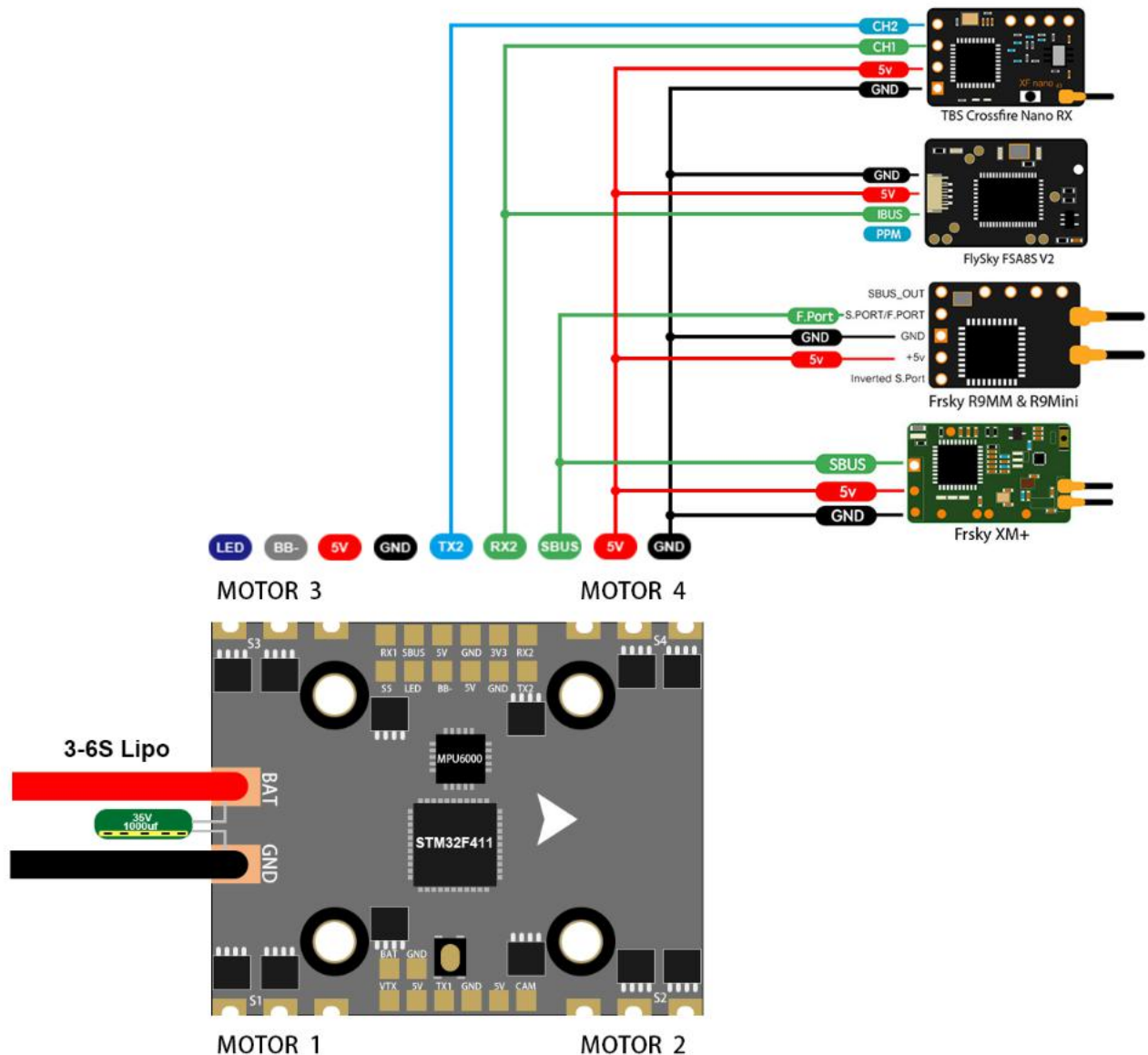
Battery 0.00 A

179 Scale [1/10th mV/A]

0 Offset [mA]

# 9.Setting up the receiver

## 1.Receiver connection diagram



## 2.Click have found “UART2” Open the receiver serial port

Identifier	Configuration/MSP	Serial Rx	Telemetry Output	Sensor Input	Peripherals
USB VCP	 115200		Disabled   AUTO	Disabled   AUTO	Disabled   AUTO
UART1	 115200		Disabled   AUTO	Disabled   AUTO	VTX (IRC Tran)   AUTO
UART2	 115200		Disabled   AUTO	Disabled   AUTO	Disabled   AUTO

### 3.Set the SBUS receiver

Receiver

Serial-based receiver (SPEKSAT, § ▼

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, § ▼

Receiver Mode

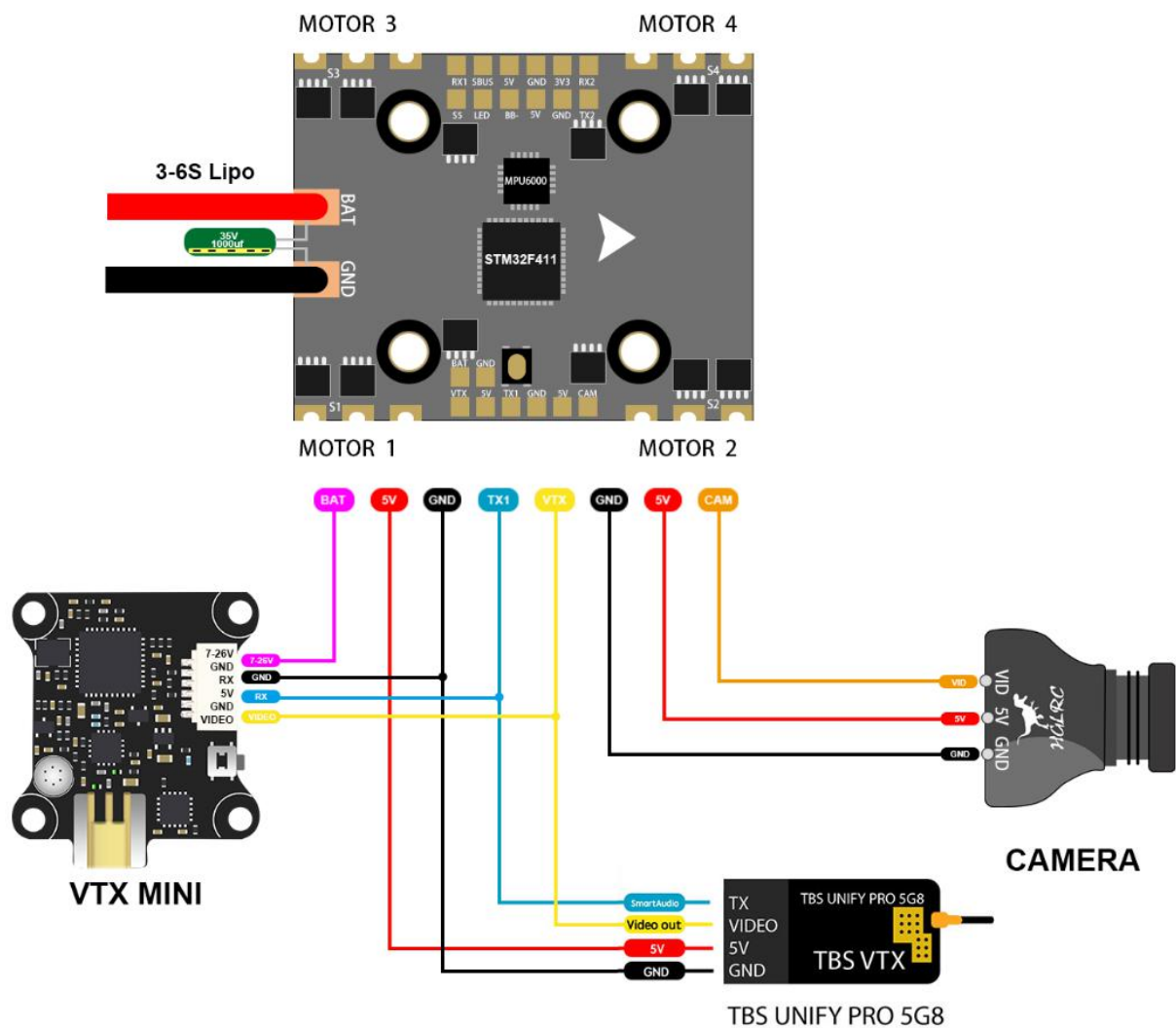
Note: Remember to configure a Serial Port (via Ports tab) and choose a Serial Receiver Provider when using RX\_SERIAL feature.

SPEKTRUM2048 ▼







Serial Receiver Provider

# 10.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.

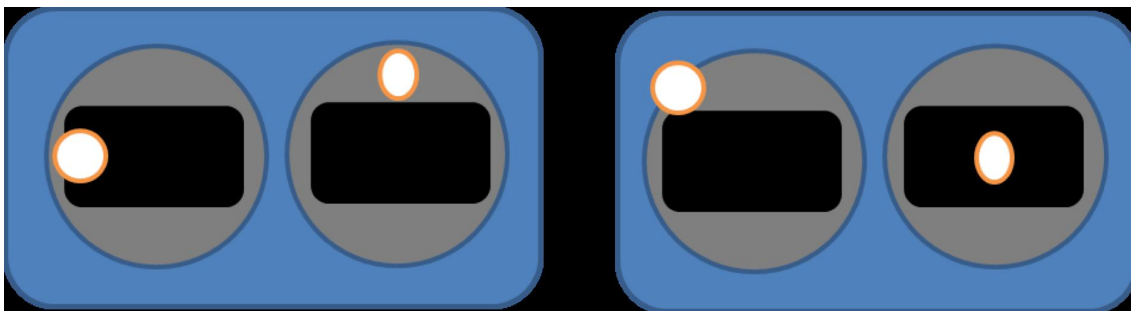
Identifier	Configuration/MSP	Serial Rx	Telemetry Output	Sensor Input	Peripherals
USB VCP	 115200		Disabled   AUTO	Disabled   AUTO	Disabled   AUTO
UART1	 115200		Disabled   AUTO	Disabled   AUTO	<div> VTX (IRC Tran)   AUTO  Disabled  Blackbox logging  VTX (TBS SmartAudio)  <b>VTX (TBS Tramp)</b>  Camera (RunCam Protocol)  Benevake LIDAR </div>
UART2	 115200		Disabled   AUTO	Disabled   AUTO	

### 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.

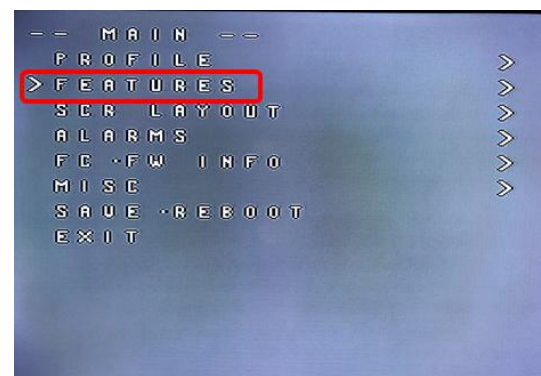
MODE2

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.

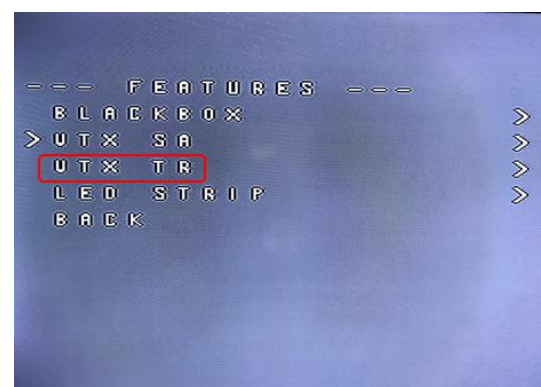
In the OSD menu, use pitch up/down to move the cursor between menu items. When a menu option has a > symbol to the right of it, this indicates that it contains a sub-menu. Roll-right will enter the sub-menu. For example, in the screen to the right, moving the cursor to “Features” and then moving the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

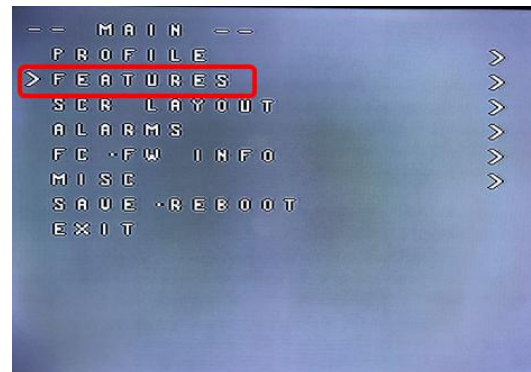


the screen.

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.

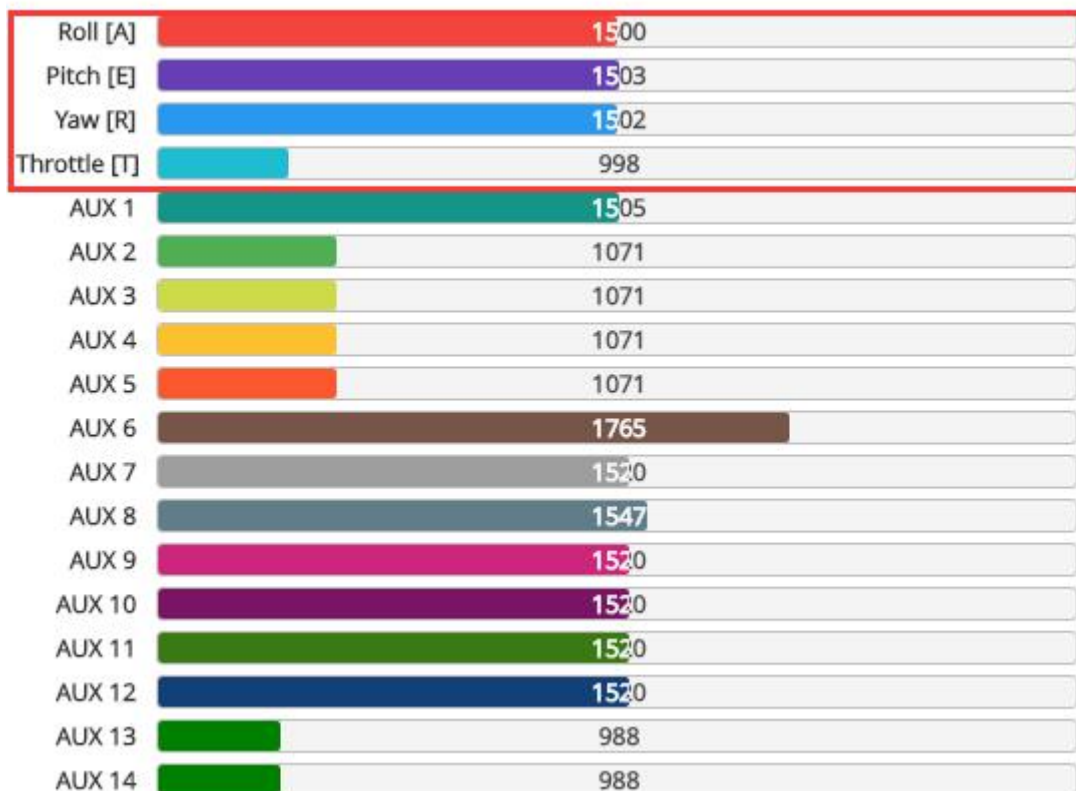
When a parameter can be modified, the parameter’s current value will be shown on the right-hand side of the screen. In this case, roll left/right will adjust the parameter up and down.

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.




# 11. Check receiver signal

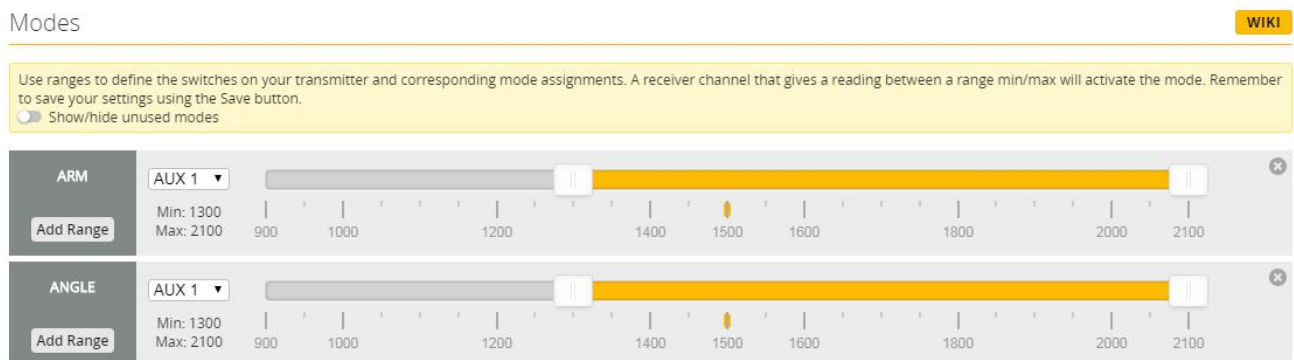
1. Click  Receiver Check the remote control output signal






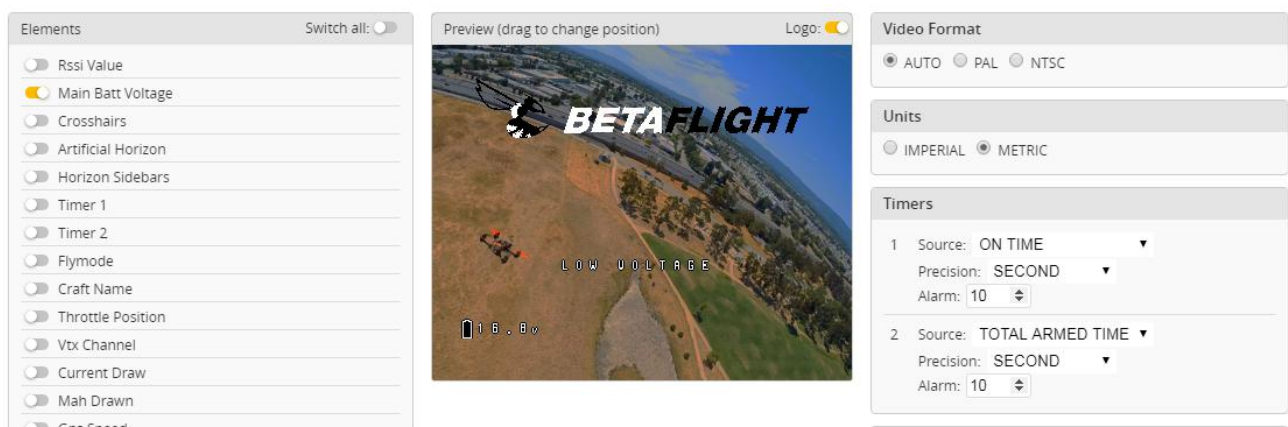
# 12. Select flight mode startup mode

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.

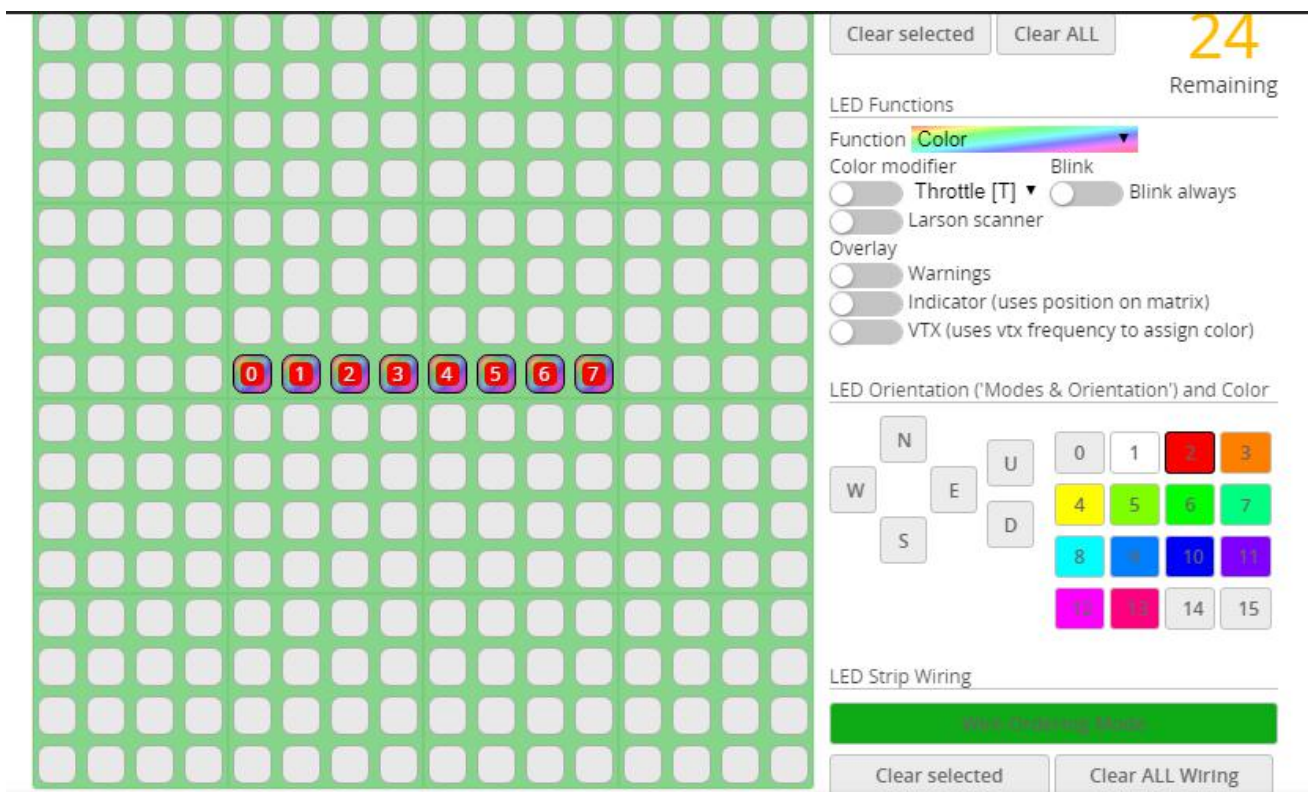


# 14.LED settings

1. Click  Configuration Turn on LED support



2.Click  LED Strip .Click  set according to need





# 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