

Zeus25 V2 AIO Flight Controller Manual





Product Specifications.....	1
Interface Description.....	2
Check the flight control drive.....	3
Calibration accelerometer.....	4
UART 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
GPS parameters setting.....	11
Check receiver signal.....	12
Select flight mode startup mode.....	13
OSD settings.....	14
LED settings.....	15
Troubleshooting.....	16

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Package Included

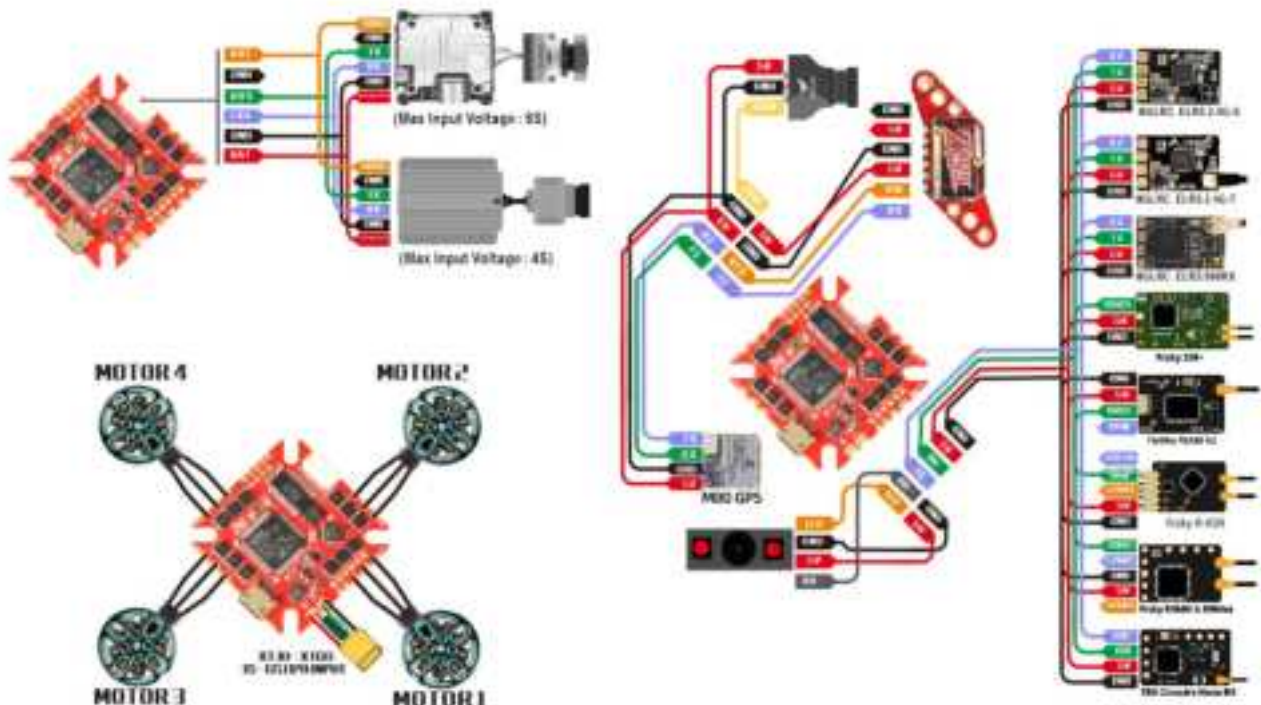
Zeus25 V2 AIO*1	Accessory Bag*1
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1.Product Specifications

Product parameters	
Model	Zeus25 V2 AIO
Input Voltage	3-6S
Usage	for 65mm-200mm Frame Kit
Installing Hole	25.5x25.5mm/M2
Dimensions	34.5x34.5mm
FC Firmware	BF ZEUSF722_AIO(HGLR)
CPU	STM32F722
MPU	MPU6000
BEC	5/2A
BlackBox	8M
UARTS	5
ESC Firmware	BL_S(F_H_40)
Current Sensor	support
Constant Current	25A
Peak Current	30A (5 Sec)

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

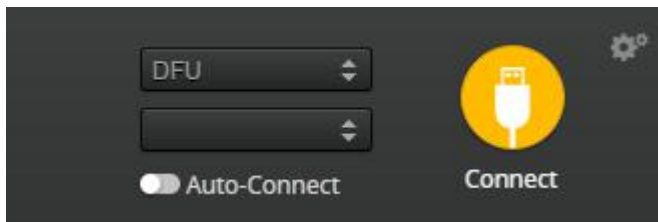




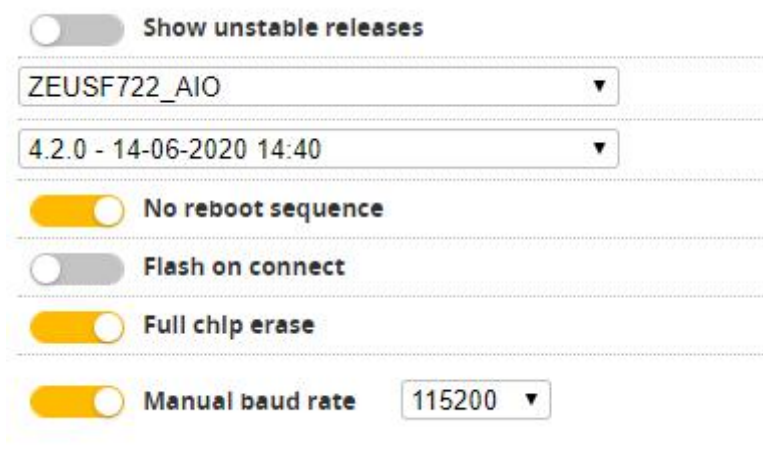
3. Double-click on the run (Plug in the flight controller to automatically install the driver)



4. open betafight configurator , enter DFU mode

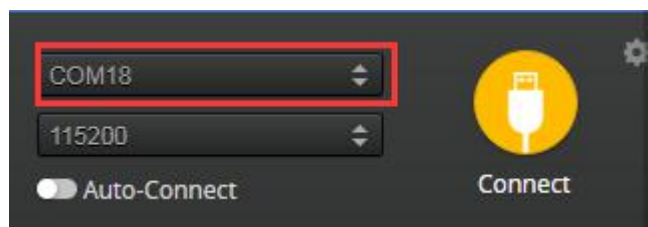


5. Click  Firmware Flasher Select firmware version



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**

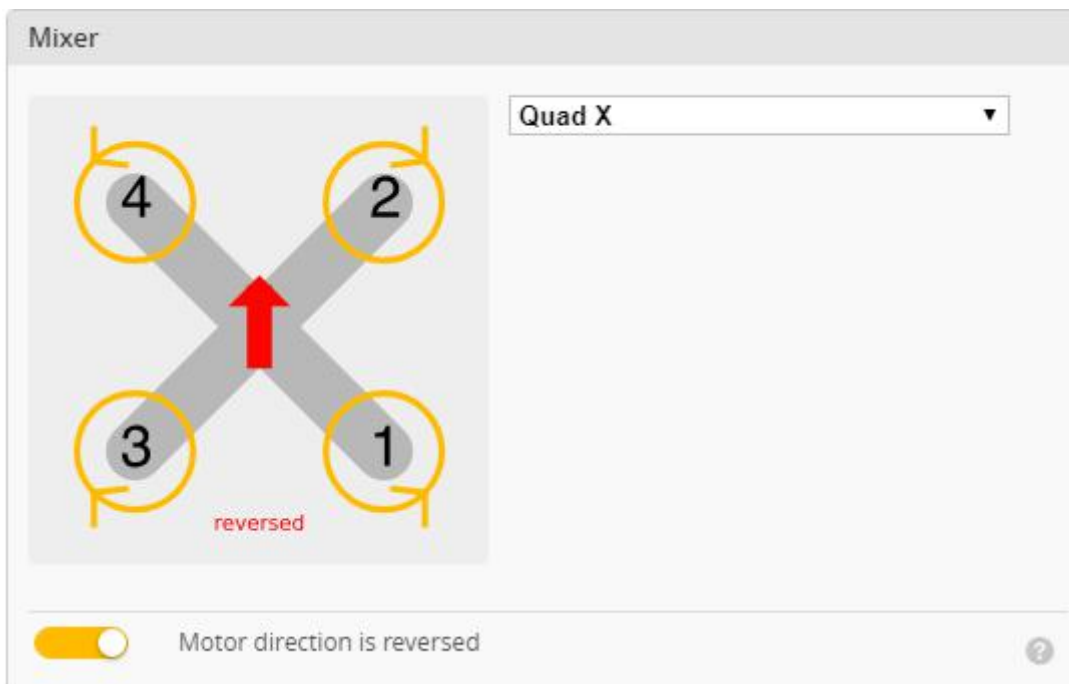


5. UART serial port use

1. UART1 uses receiver of DJI/Vista remote controller
2. UART2 uses VTX
3. UART3 uses GPS
4. UART4 uses DJI
5. UART6 uses receiver of remote controller

6. Select aircraft model

1. Click  Configuration Select model

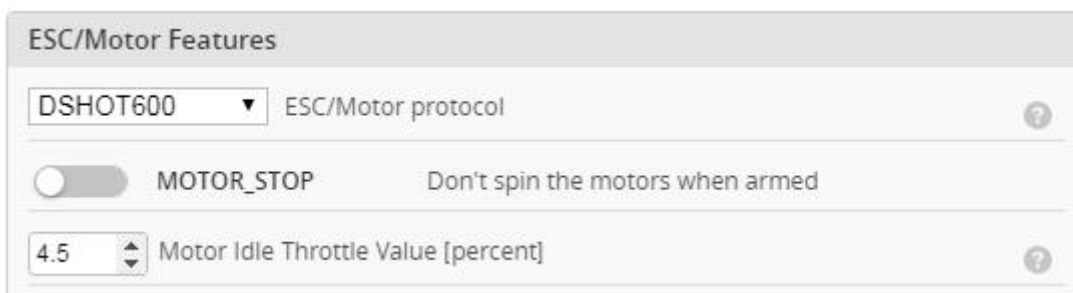


2. Click  **Motors** Click “**I understand the risks**” Push Master to check motor steering “**Master**” Steering can be changed at [BLHeliSuite32](#)



7. Choose ESC protocol

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



8.Voltage and current parameters setting

1.Click  Power & Battery Setting parameters

Power & Battery

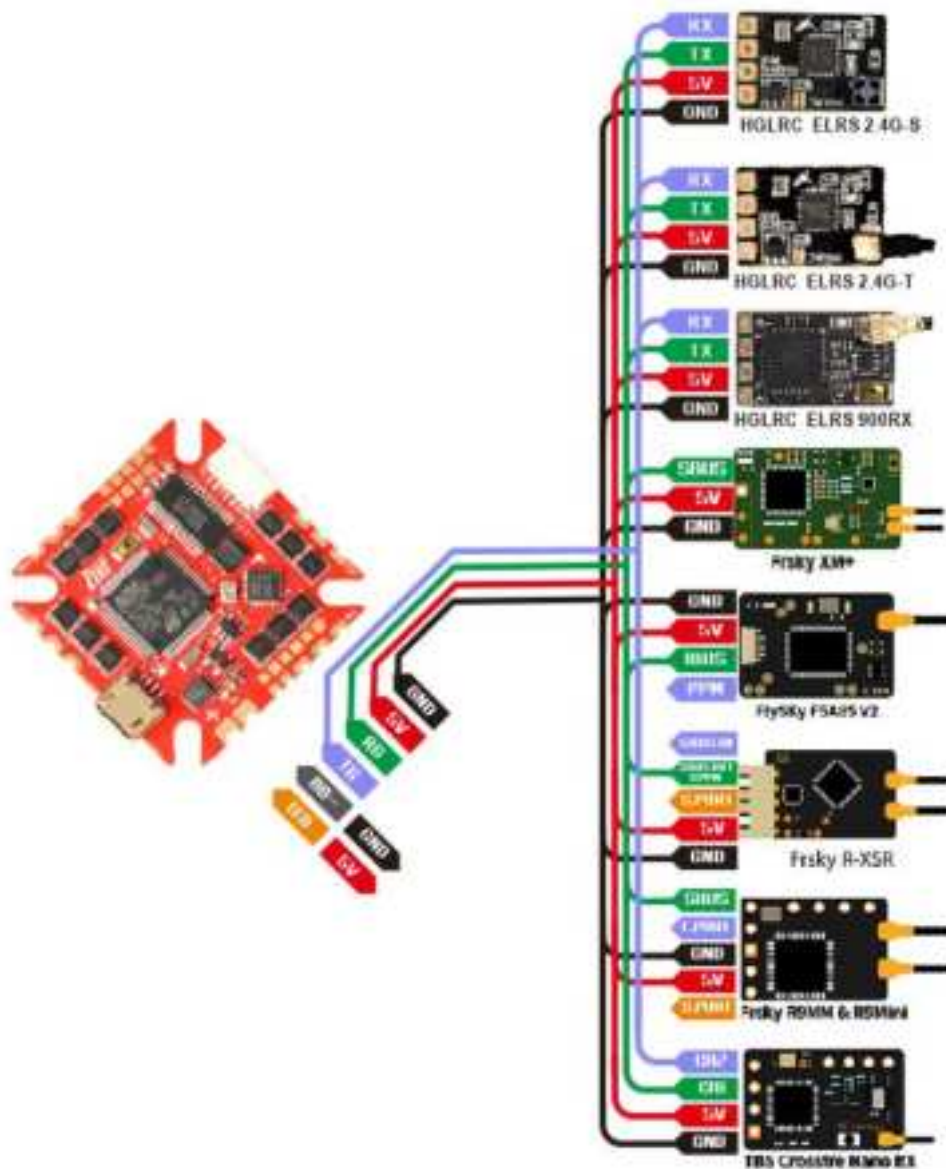
Battery	
Onboard ADC	Voltage Meter Source:
Onboard ADC	Current Meter Source:
3.3	Minimum Cell Voltage
4.3	Maximum Cell Voltage
3.5	Warning Cell Voltage
0	Capacity (mAh)

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  have found “UART6” Open the receiver serial port

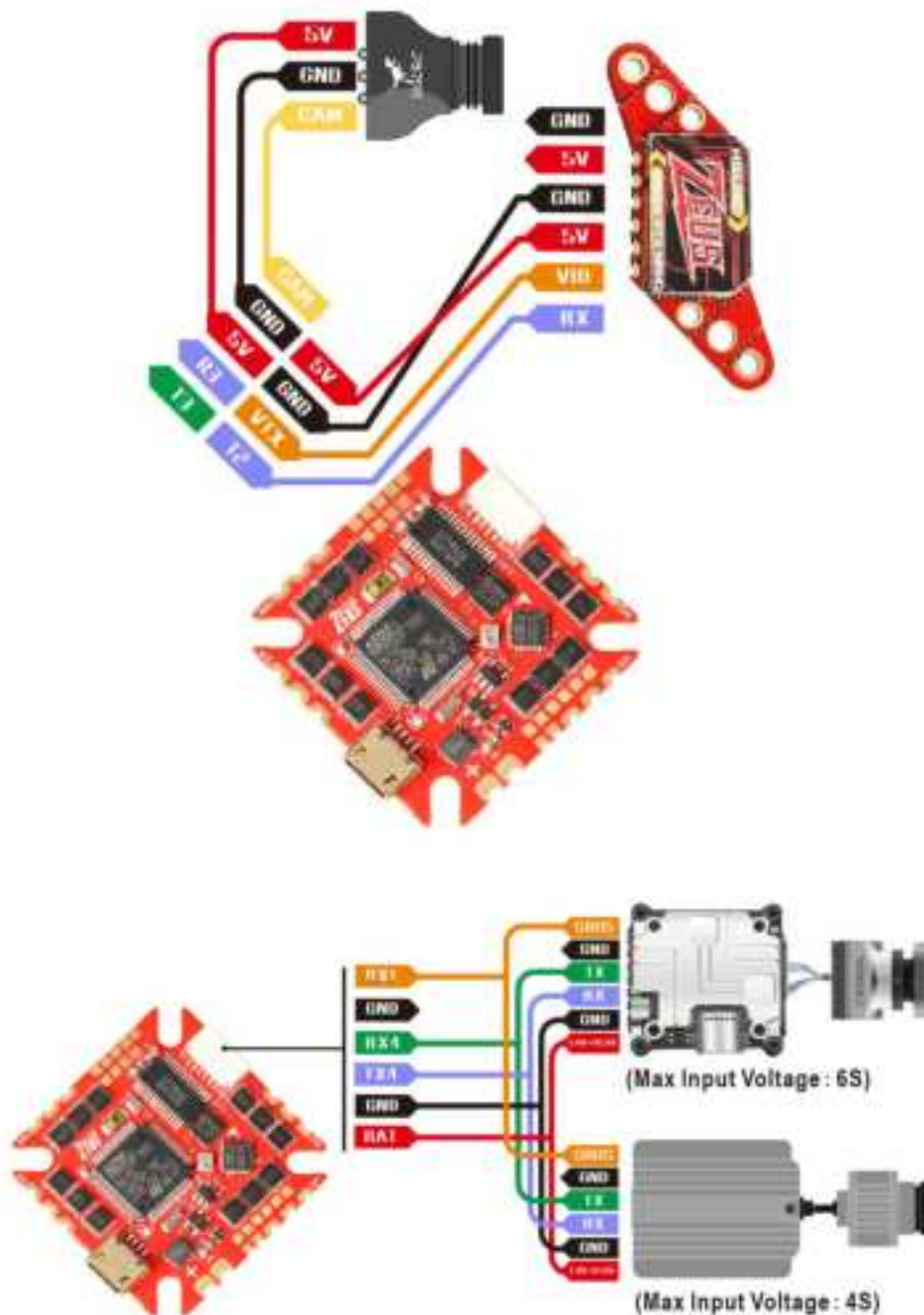
Ports

There are 16 communication ports available. When the flight controller is connected to the computer, the configuration software will detect the ports. You can click the "Ports" button to open the "Ports" window and select the port you want to use. The only way to select a port is to click the "Ports" button.

Port	Device	Serial No.	Serial Name	Serial Type	Serial Speed
COM1	110101	101	Serial1	115200	115200
COM2	110102	102	Serial2	115200	115200
COM3	110103	103	Serial3	115200	115200
COM4	110104	104	Serial4	115200	115200
COM5	110105	105	Serial5	115200	115200
COM6	110106	106	Serial6	115200	115200
COM7	110107	107	Serial7	115200	115200
COM8	110108	108	Serial8	115200	115200
COM9	110109	109	Serial9	115200	115200
COM10	110110	110	Serial10	115200	115200
COM11	110111	111	Serial11	115200	115200
COM12	110112	112	Serial12	115200	115200
COM13	110113	113	Serial13	115200	115200
COM14	110114	114	Serial14	115200	115200
COM15	110115	115	Serial15	115200	115200
COM16	110116	116	Serial16	115200	115200

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.



3. DJI serial port opens

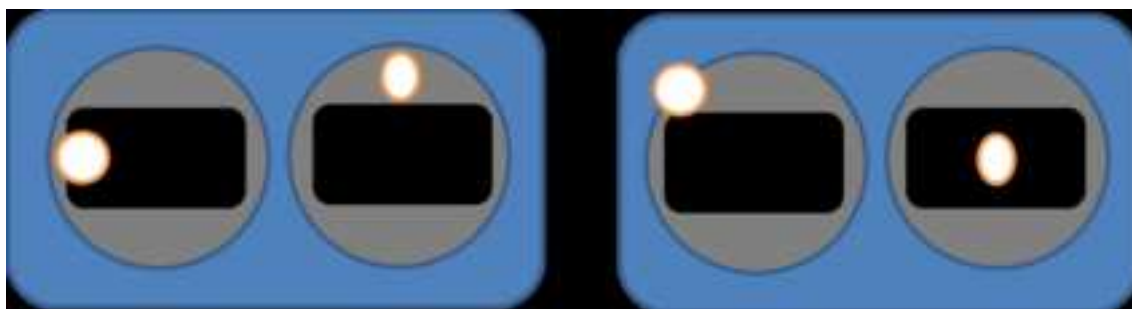


4.Use OSD to adjust VTX

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.

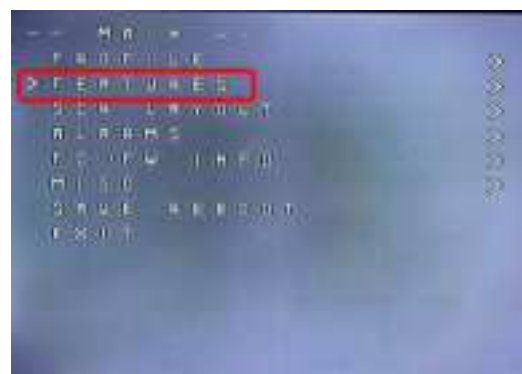
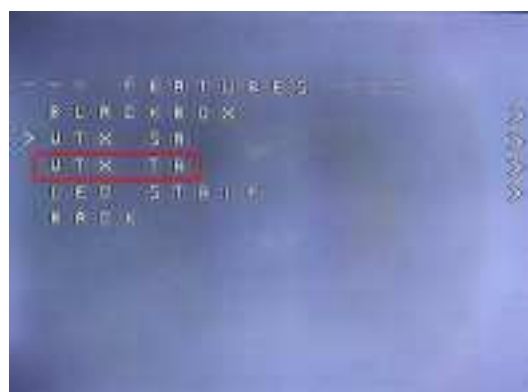
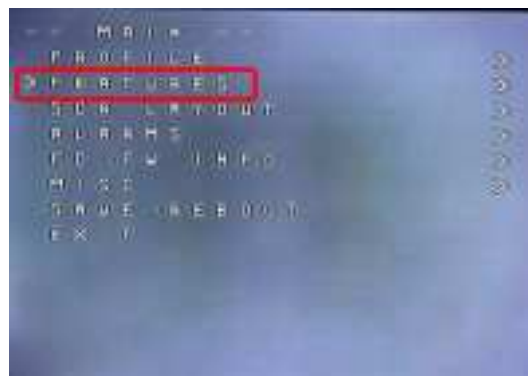
To adjust PIDs, rates, and other tuning-related parameters, enter the “Profile” sub-menu.

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.

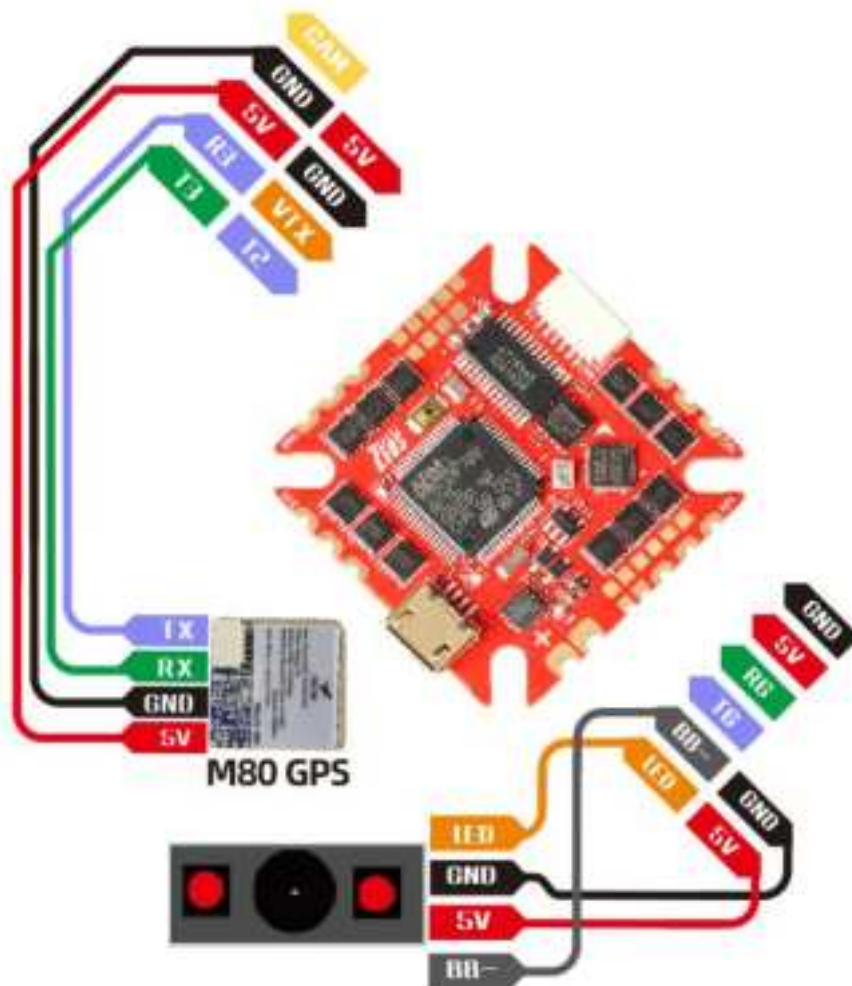
When a parameter can be modified, the parameter’s current value will be shown on the right-hand side of the screen. In this case, roll left/right will adjust the parameter up and down.

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.



11. GPS parameters setting

1. GPS connection diagram



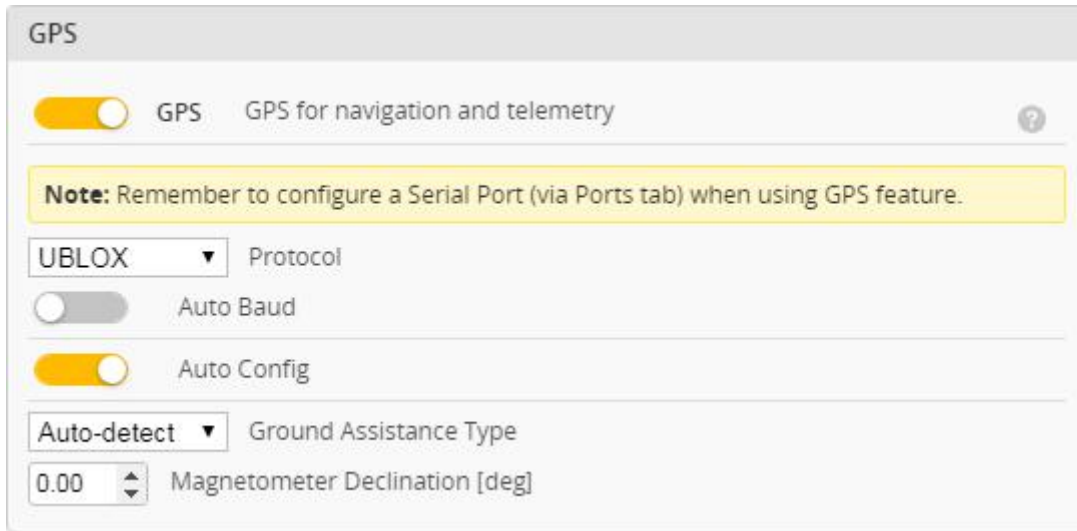
2. Open the GPS serial port

Ports

Note: When the flight controller is powered on, the GPS module will be automatically detected and configured. Please refer to the GPS module pinout for more details.

Port	Configuration	Speed	Mode	Device	Device	Device
UART0	115200	115200	115200	UART0	UART0	UART0
UART1	115200	115200	115200	UART1	UART1	UART1
UART2	115200	115200	115200	UART2	UART2	UART2
UART3	115200	115200	115200	UART3	UART3	UART3
UART4	115200	115200	115200	UART4	UART4	UART4
UART5	115200	115200	115200	UART5	UART5	UART5

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

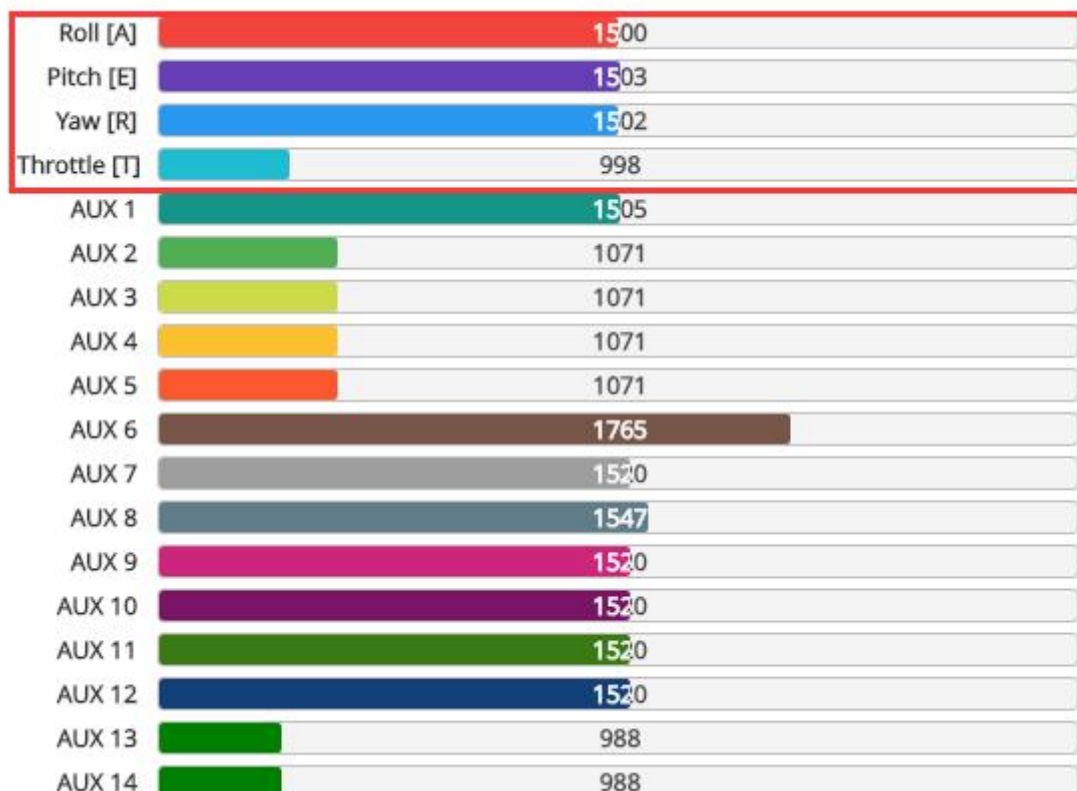


The image shows the GPS configuration window in a software interface. It has a title bar 'GPS' and a toggle switch for 'GPS' which is turned on. Below the toggle is a note: 'Note: Remember to configure a Serial Port (via Ports tab) when using GPS feature.' There are several settings: 'Protocol' set to 'UBLOX', 'Auto Baud' is turned off, 'Auto Config' is turned on, 'Ground Assistance Type' is set to 'Auto-detect', and 'Magnetometer Declination [deg]' is set to '0.00'.

Setting	Value
GPS	On
Note	Remember to configure a Serial Port (via Ports tab) when using GPS feature.
Protocol	UBLOX
Auto Baud	Off
Auto Config	On
Ground Assistance Type	Auto-detect
Magnetometer Declination [deg]	0.00

12. Check receiver signal

1. Click  Receiver Check the remote control output signal



13. Select flight mode startup mode

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



14. 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.

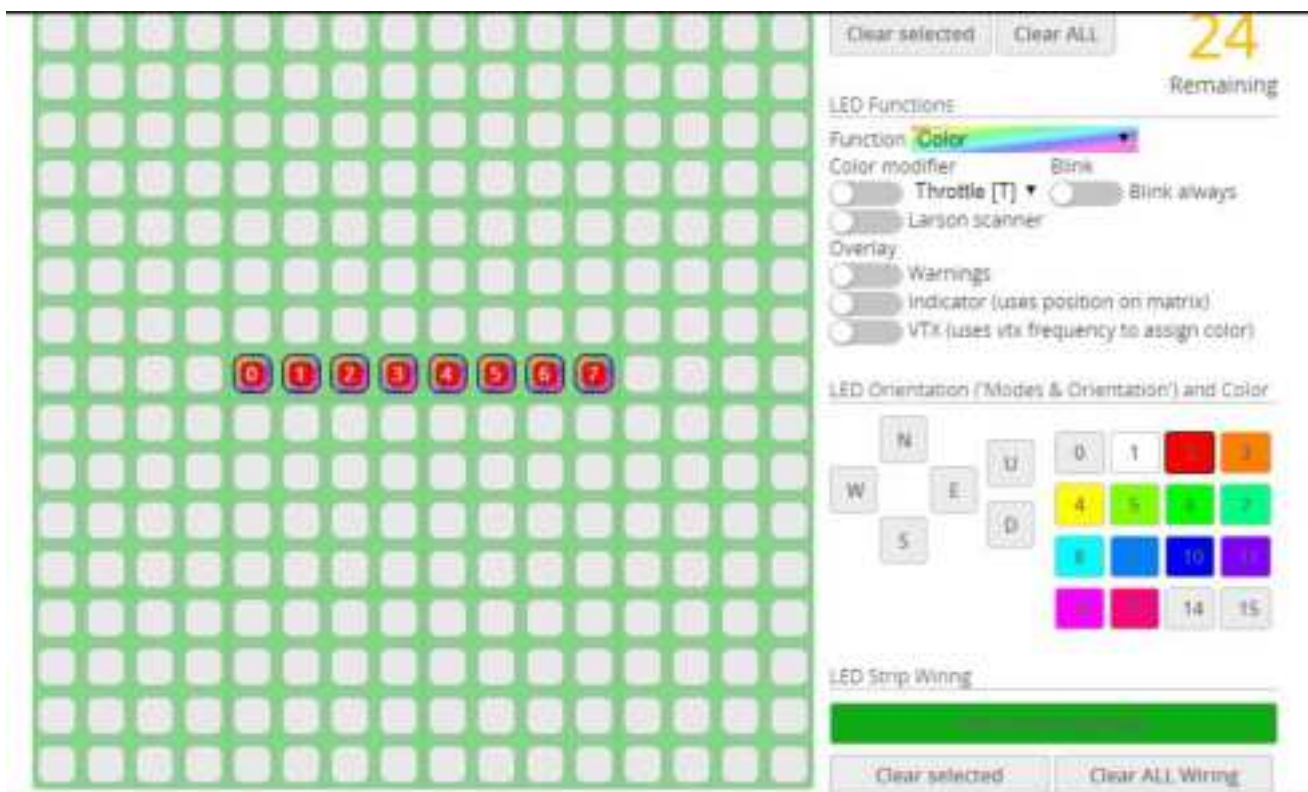


15.LED settings

1. Click  Configuration Turn on LED support



2.Click  LED Strip .Click  Wire Ordering Mode set according to need



16.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.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