



HGLRC Zeus25 V2 AIO Flight Controller User Manual

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Zeus25 V2 AIO

www.hglrc.com

Package Included

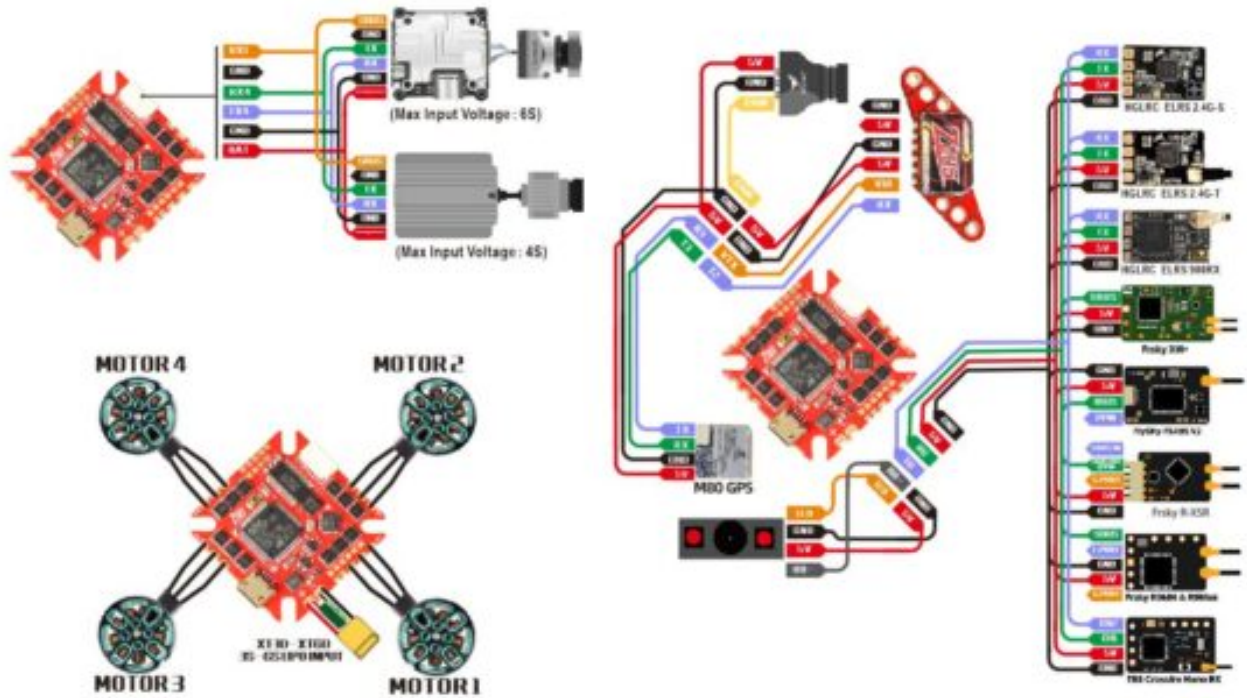
Zeus25 V2 AIO*1	Accessory Bag*1
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1. Product Specifications

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



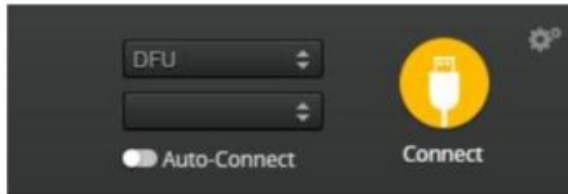
2 .Driver cannot be installed, please download Impulse RC_Driver_Fixer



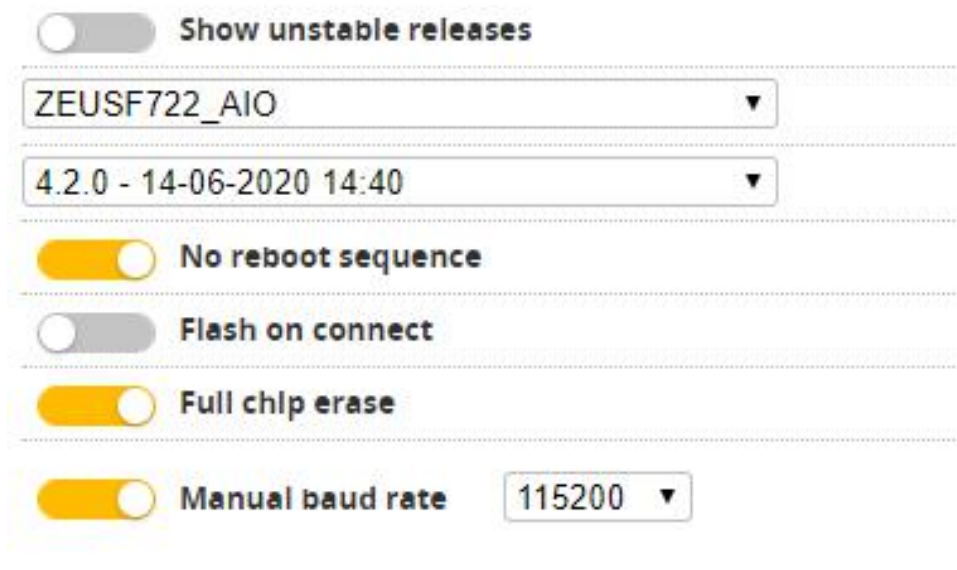
3. Double-click on the run(Plug in the flight controller to automatically install the driver)



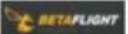
4. open betaflyght configurator , enter DFU mode

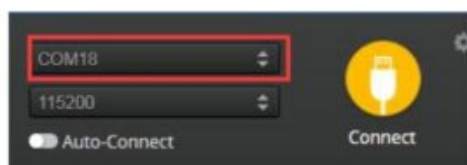


5. Click  Select firmware version



6. Click  Load firmware.  Waiting for completion  It will be prompted upon completion. 

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

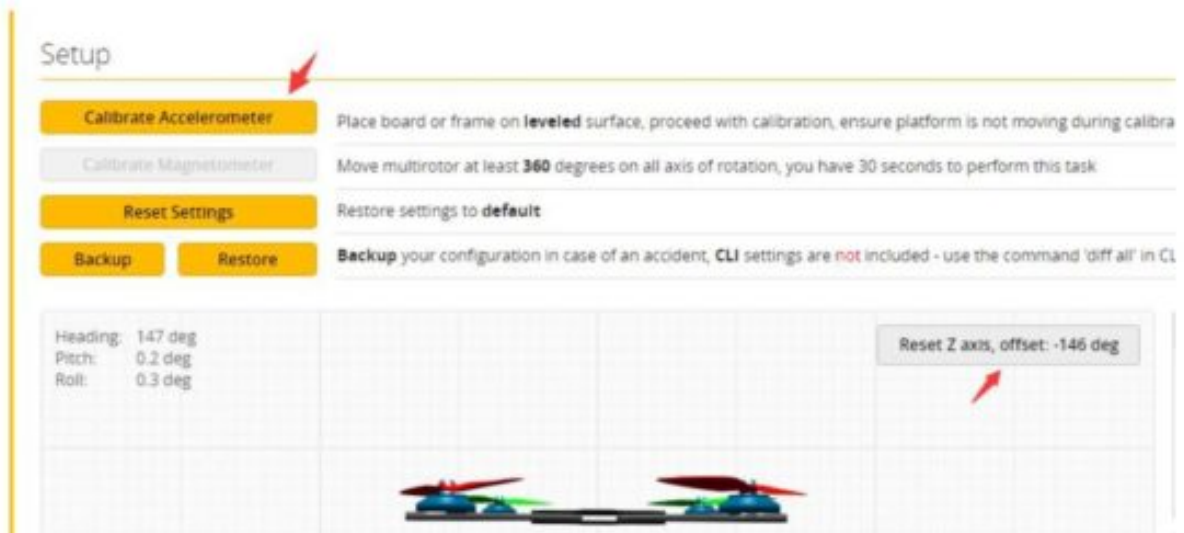


4. Calibration accelerometer

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

Click again

Calibrate Accelerometer

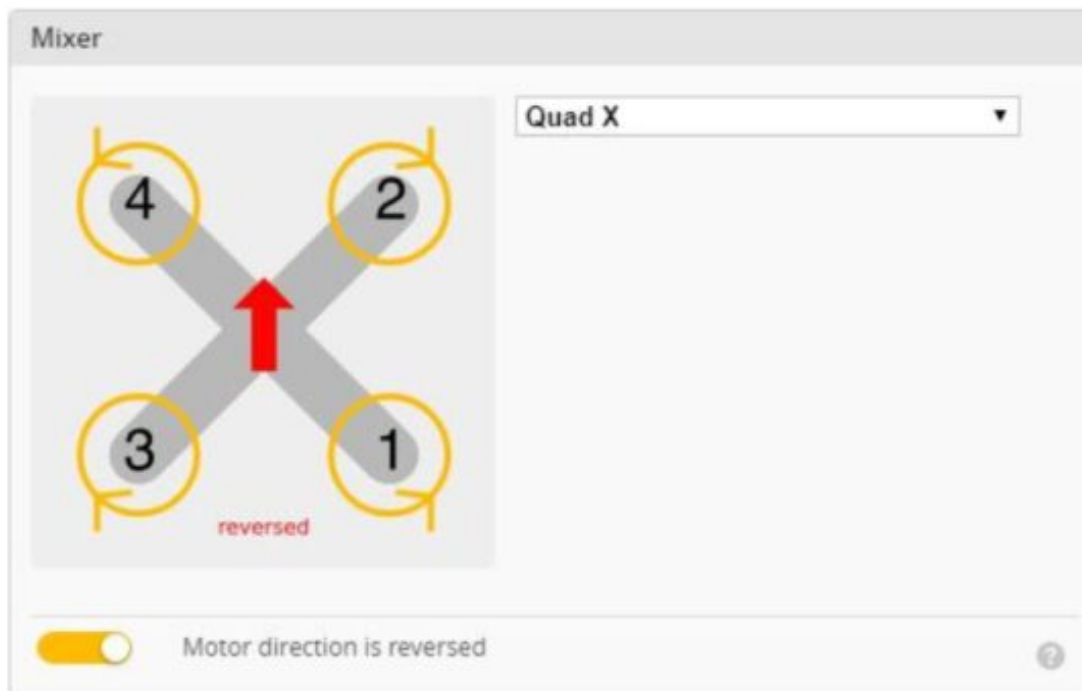


5. UART serial port use

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

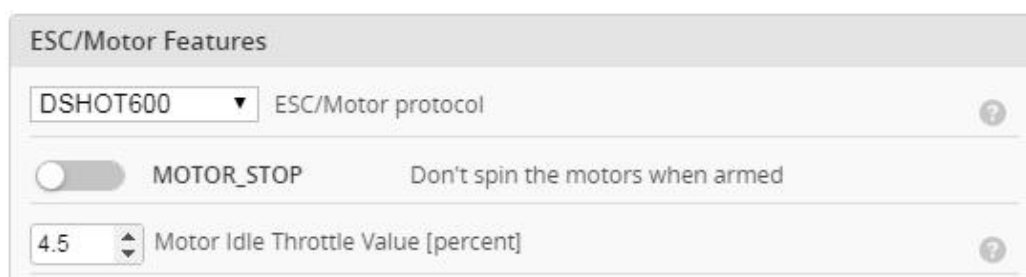


2. Click Motors Click "I understand the risks" Push Master to check motor steering "Master" Steering can be changed at [BLHeliSuite32](#)



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

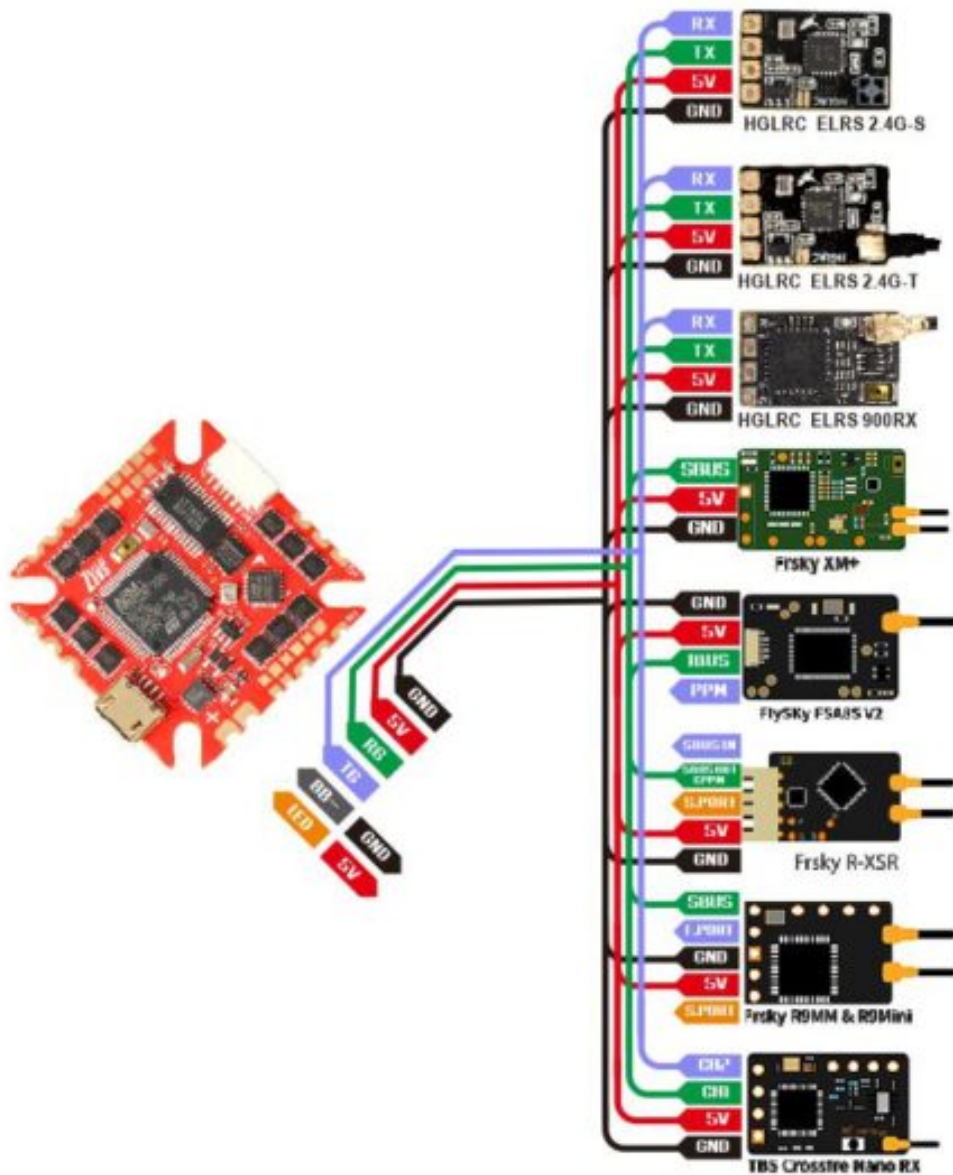
Battery		
Onboard ADC	▼	Voltage Meter Source
Onboard ADC	▼	Current Meter Source
3.3	↕	Minimum Cell Voltage
4.3	↕	Maximum Cell Voltage
3.5	↕	Warning Cell Voltage
0	↕	Capacity (mAh)

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 **Ports** have found **"UART6"** Open the receiver serial port

Ports

Note: Not all combinations are valid. When the flight controller firmware detects this the serial port configuration will be reset.
 Note: On **MP1** disables MP1 on the first serial port unless you know what you are doing. You may have to refresh and erase your configuration if you do.

Identifier	Configuration Mode	Serial ID	Transmit Output	Serial Speed	Parity/Bits
USB-MCP	115200	<input type="checkbox"/>	Disabled • AUTO	Disabled • AUTO	Disabled • AUTO
UART1	115200	<input type="checkbox"/>	Disabled • AUTO	Disabled • AUTO	Disabled • AUTO
UART2	115200	<input type="checkbox"/>	Disabled • AUTO	Disabled • AUTO	Disabled • AUTO
UART3	115200	<input type="checkbox"/>	Disabled • AUTO	Disabled • AUTO	Disabled • AUTO
UART4	115200	<input type="checkbox"/>	Disabled • AUTO	Disabled • AUTO	Disabled • AUTO
UART5	115200	<input checked="" type="checkbox"/>	Disabled • AUTO	Disabled • AUTO	Disabled • AUTO

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

1. VTX connection diagram

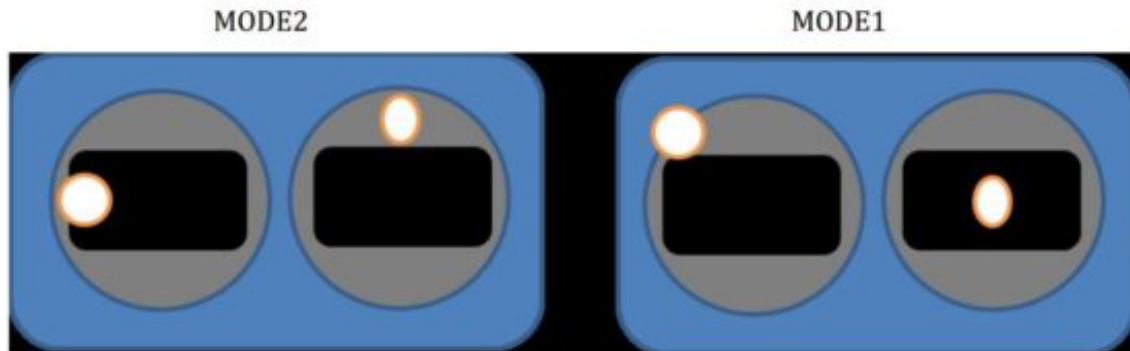
Ports

Note: not all combinations are valid. When the flight controller firmware detects this the serial port configuration will be reset.
 Note: Do NOT enable UART on the first serial port unless you know what you are doing. You may have to reflash and make your configuration all over.

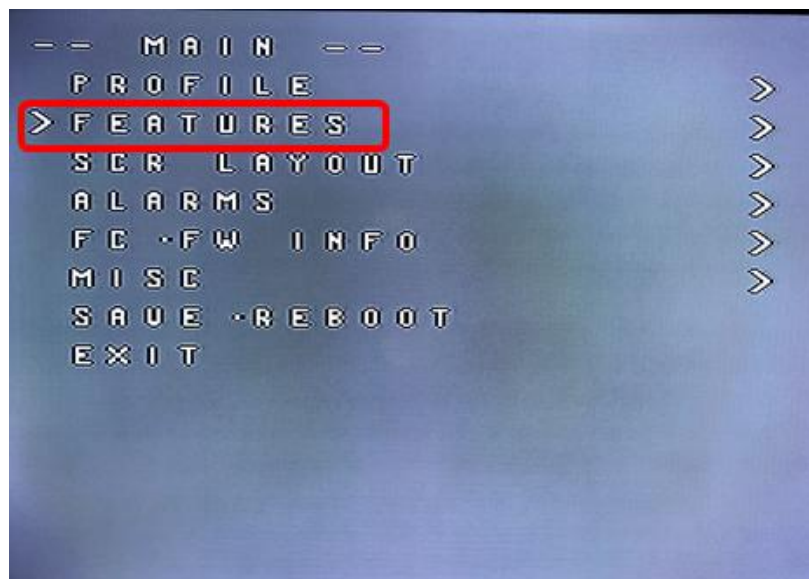
Device	Configuration/MPI	Serial Rx	Serial Tx	Serial Mode	Serial Baud	Serial Flow
USB HCP	115200	On	On	Disabled	AUTO	Disabled
UART1	115200	On	On	Disabled	AUTO	Disabled
UART2	115200	On	On	Disabled	AUTO	Disabled
UART3	115200	On	On	Disabled	AUTO	Disabled
UART4	115200	On	On	Disabled	AUTO	Disabled
UART5	115200	On	On	Disabled	AUTO	Disabled

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.



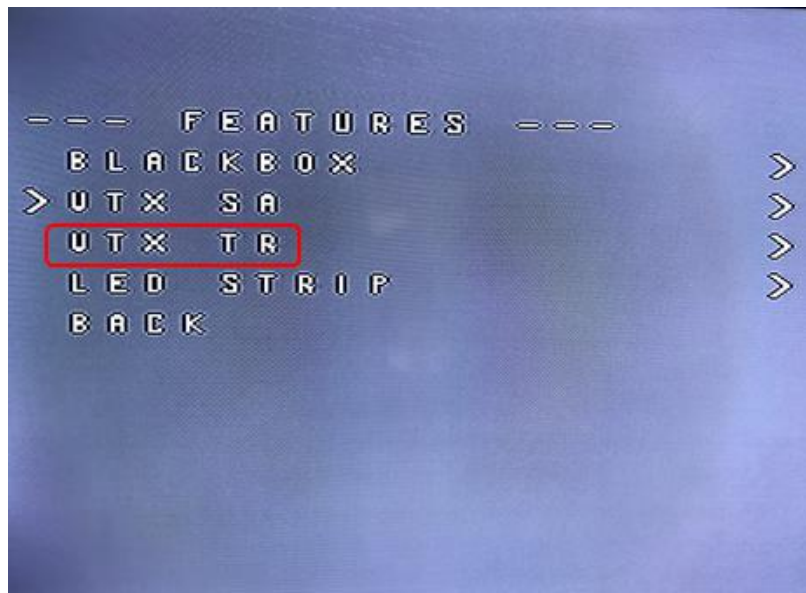
The graphics above show the stick command to bring up the OSD menu. The stick command is: throttle centered, yaw left, pitch forward. The exact stick command therefore depends on which mode your transmitter sticks are in.



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.

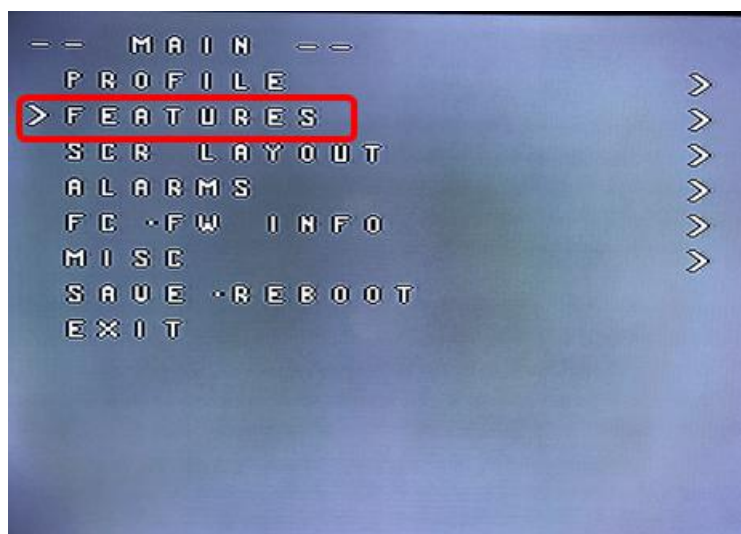
To adjust PIDs, rates, and other tuning-related parameters, enter the “Profile” sub-menu.



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.

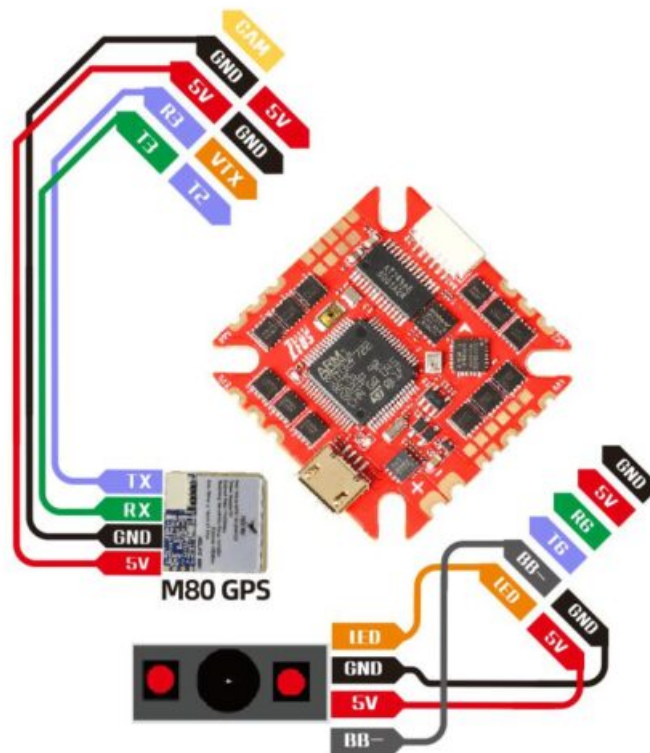
When a parameter can be modified, the parameter’s current value will be shown on the right-hand side of the screen. In this case, roll left/right will adjust the parameter up and down.



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: not all combinations are valid, when the flight controller firmware detects this the serial port configuration will be reset.
 Note: Do NOT enable VSP on the first serial port unless you know what you are doing. You may have to reflect and enable your configuration if you do.

Destination	Configuration	Serial	Telemetry Output	Telemetry Input	Peripherals
USB VCP	115200		Disabled	Disabled	Disabled
UART1	115200		Disabled	Disabled	Disabled
UART2	115200		Disabled	Disabled	Disabled
UART3	115200		Disabled	GPS	Disabled
UART4	115200		Disabled	Disabled	Disabled
UART5	115200		Disabled	Disabled	Disabled

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

GPS

☒ GPS GPS for navigation and telemetry

Note: Remember to configure a Serial Port (via Ports tab) when using GPS feature.

UBLOX Protocol


☐ Auto Baud

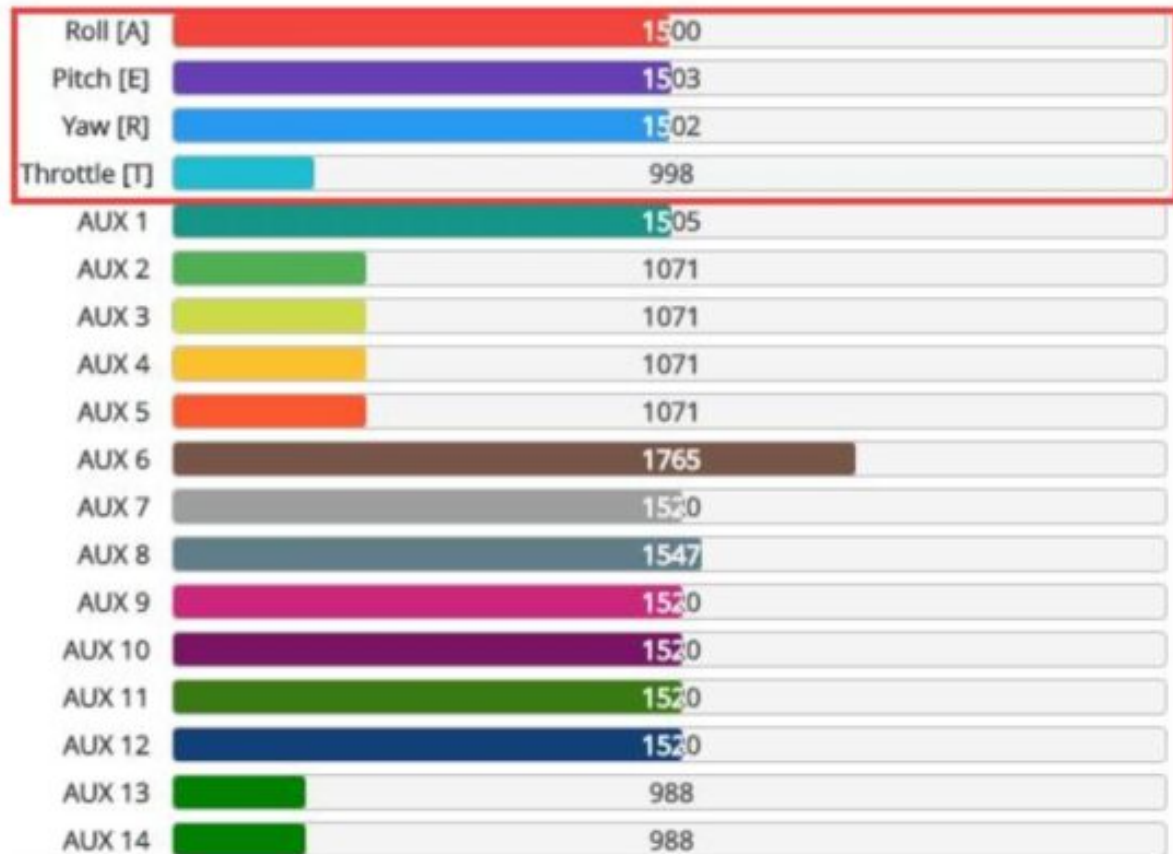
☒ Auto Config

Auto-detect Ground Assistance Type


0.00 Magnetometer Declination [deg]

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

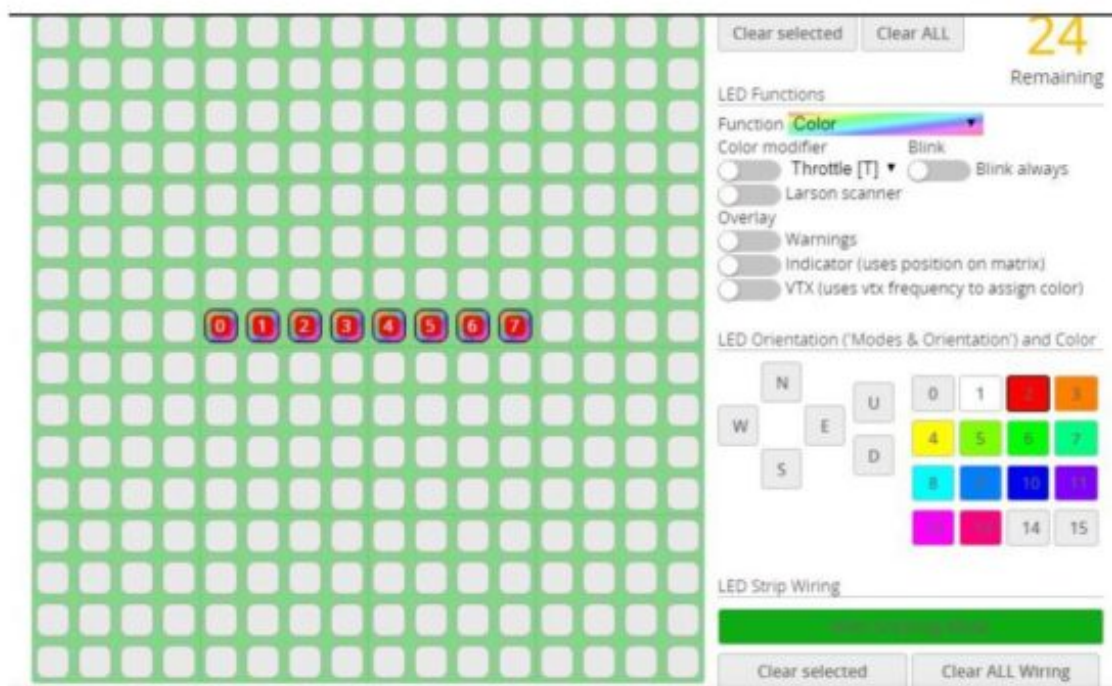


15. LED settings

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

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