Manuals+ — User Manuals Simplified.

HGLRC Zeus35 Pro AIO Flight Controller User Manual

Contents

HGLRC Zeus35 Pro AIO Flight Controller

Product Specifications

Product parameters	
Model	Zeus35 Pro AIO
Weight	13.8g
Input Voltage	3-6S
Usage	for 100mm-450mm Frame Kit
Installing Hole	20x20mm/M3
Dimensioms	40.0×34.0mm
FC Firmware	BF ZEUSF722_AIO(HGLR)
CPU	STM32F722
MPU	MPU6000
BEC	9V/1A 5/2A
BlackBox	8M
UARTS	5
ESC Firmware	BL_S
Current Sensor	not support
Constant Current	35A
Peak Current	40A 5s

Interface Description
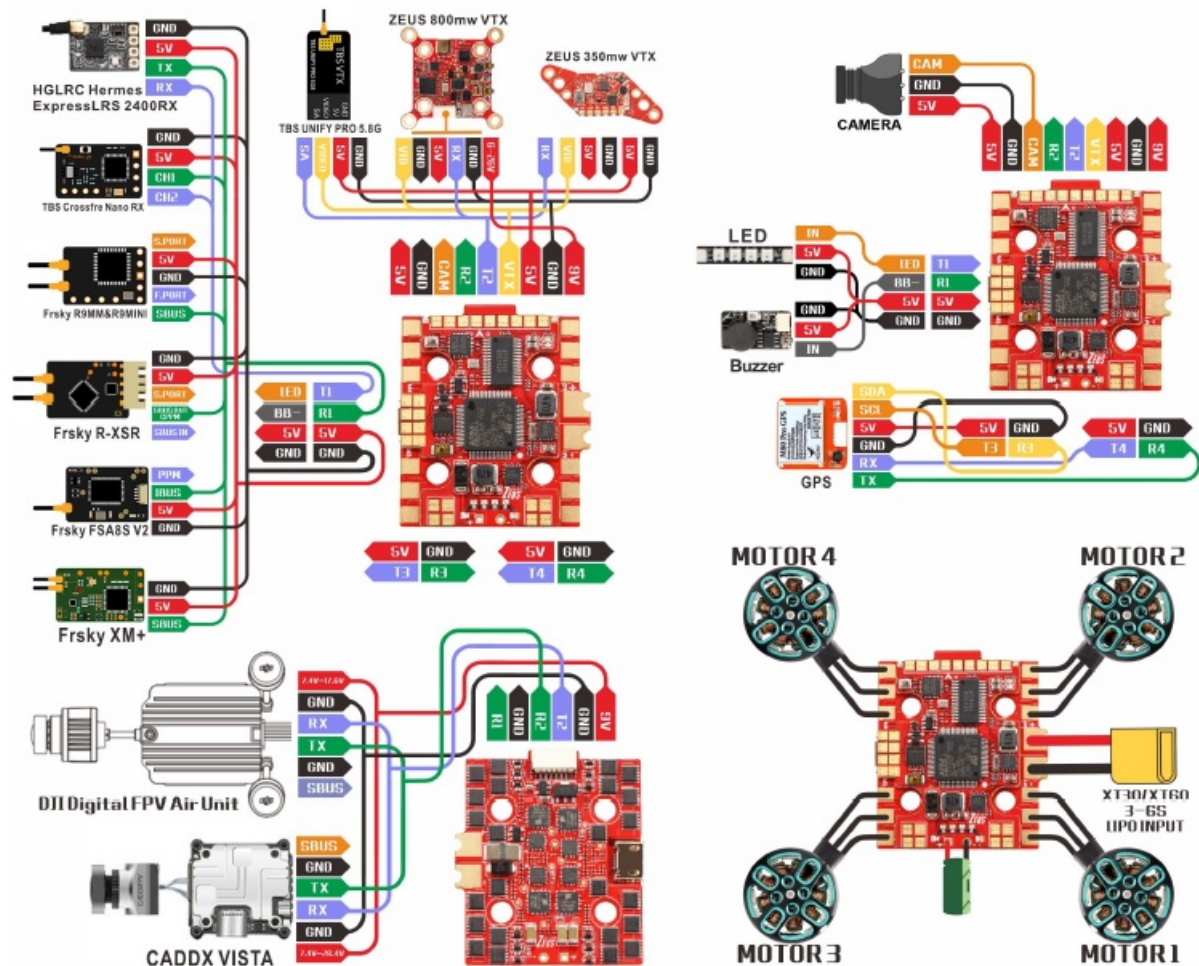
Check the flight control drive

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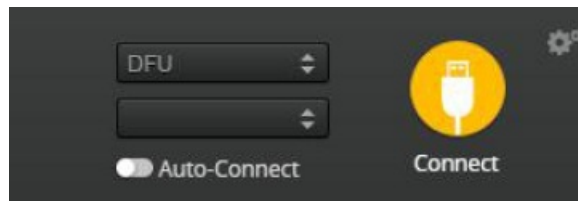

2. Driver cannot be installed, please download ImpulseRC_Driver_Fixer
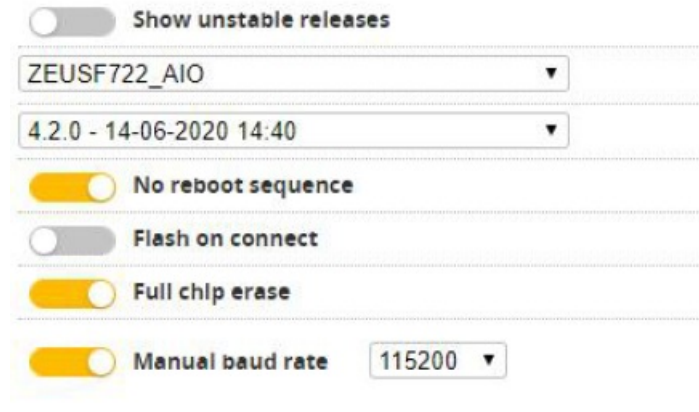

3. Double-click on the run(Plug in the flight controller to automatically install the driver)

4. open betaflight configurator ![BETAFLIGHT] enter DFU mode

5. Click ![Firmware Flasher] Select firmware version
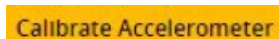
6. Click ![Flash Firmware] Load firmware. ![Flash Firmware] Waiting for completion ![Erasing ...] It will be prompted upon ![Programming: SUCCESSFUL] completion.

7. open beta flight configurator ![BETAFLIGHT] .The controller is plugged into the computer. Betaflight Automatically assigned port click "Connect" Enter setup interface

   Different computer COM
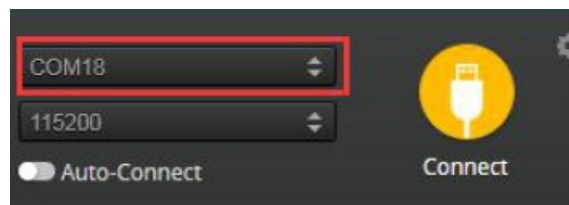
Calibration accelerometer

1. Put the aircraft horizontally and click"Reset Z axis" Click again ![Calibrate Accelerometer]
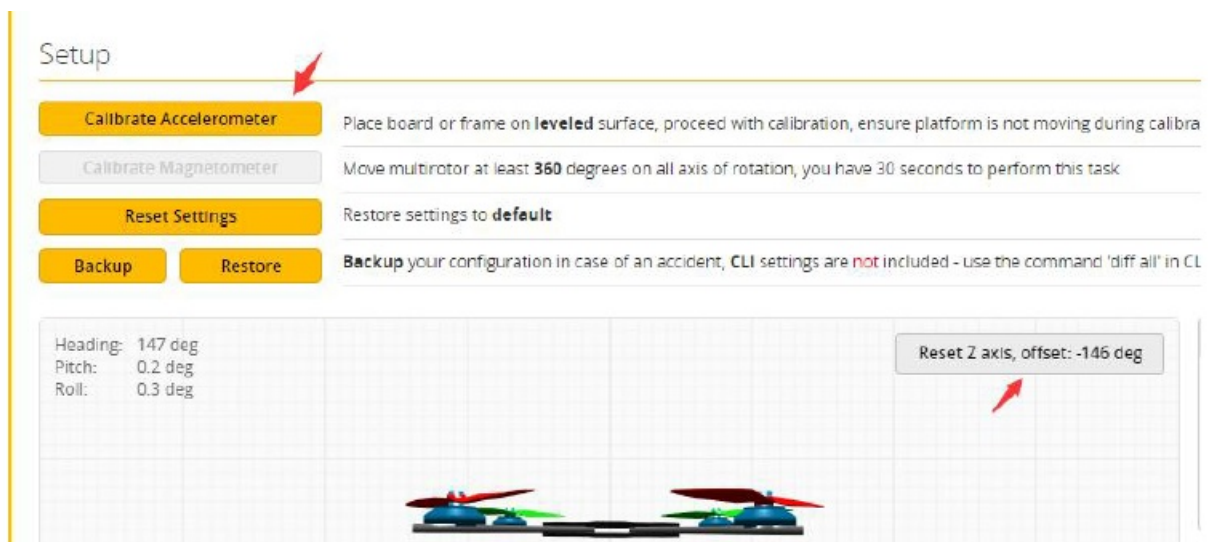
UART serial port use

1. UART1 uses the receiver
2. UART2 uses VTX/DJI
3. UART3
4. UART4 uses GPS
5. UART6

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
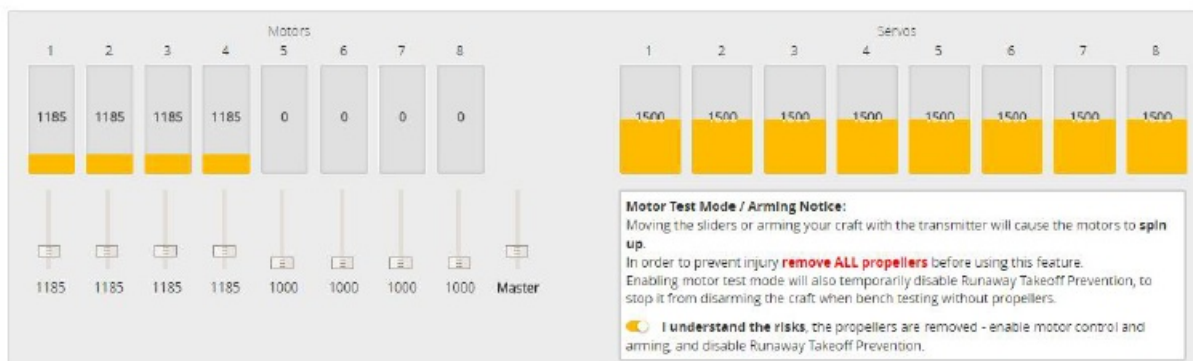
Choose ESC protocol

1. Choose the right ESC protocol, the optional universal protocol DSHOT600.
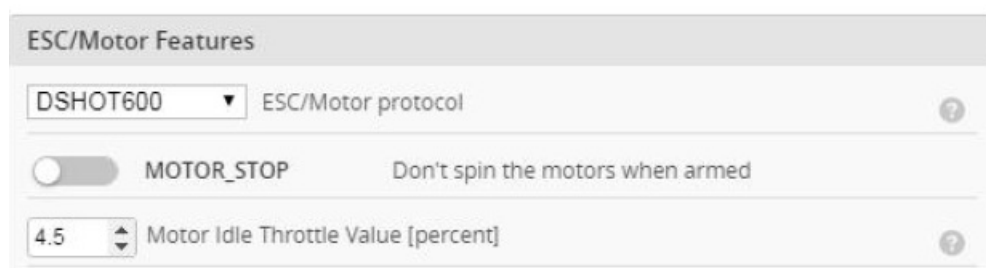
Voltage and current parameters setting

1. Click **Power & Battery** the Setting parameter

Battery

| Onboard ADC ▼ | Voltage Meter Source |
| Onboard ADC ▼ | Current Meter Source |

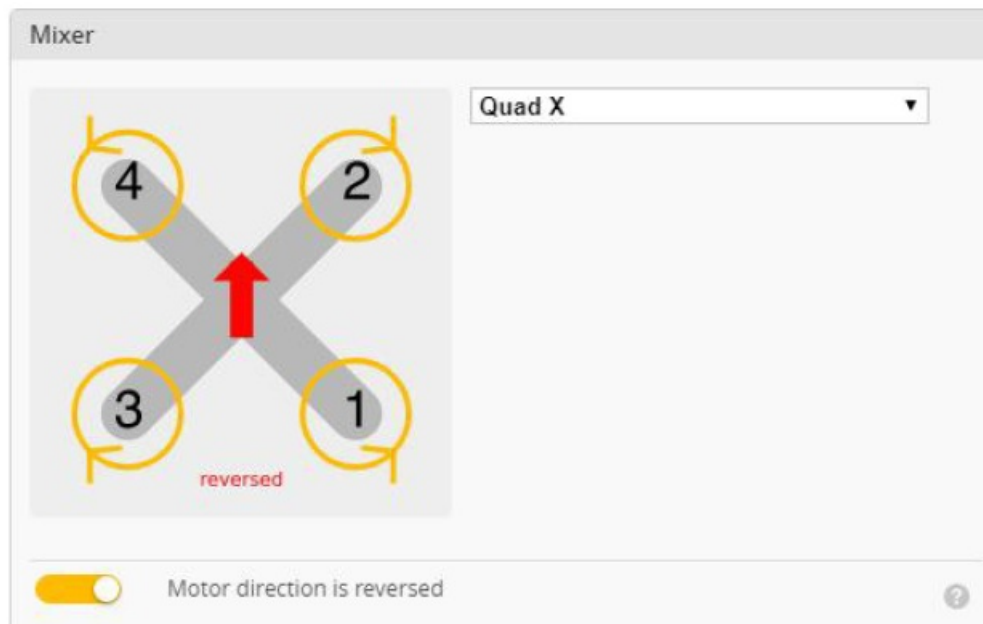| 3.3 ▲▼ | Minimum Cell Voltage |
4.3 ▲▼	Maximum Cell Voltage
3.5 ▲▼	Warning Cell Voltage
0 ▲▼	Capacity (mAh)

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] |

Setting up thereceiver

1. Receiver connection diagram
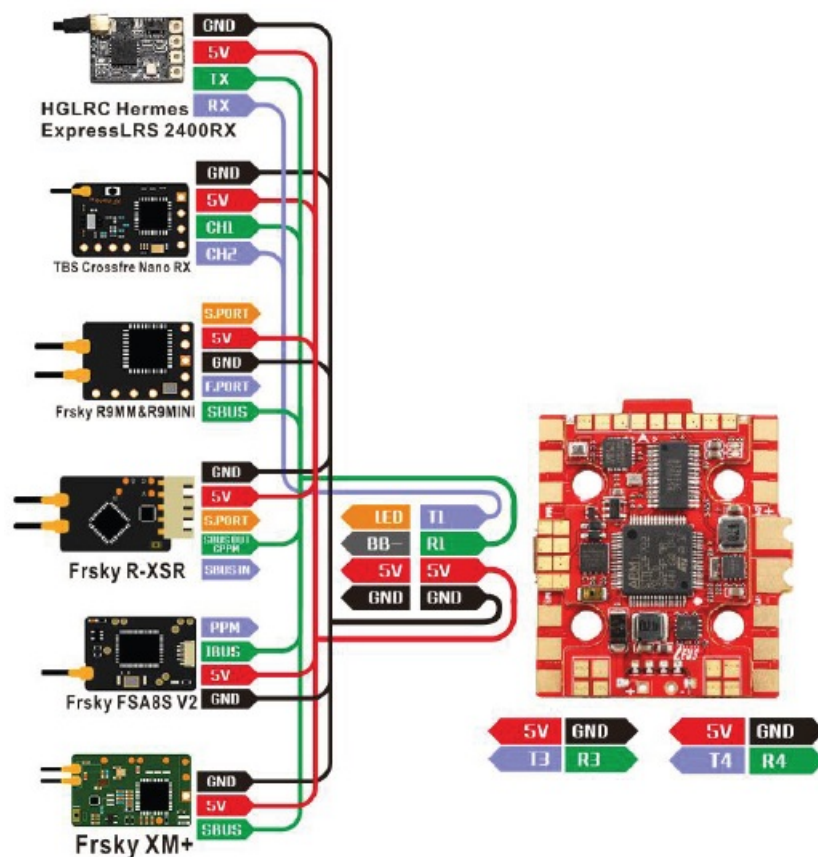
2. Click **Ports** .have found"UART1" Open the receiver serial port

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 ▾	Disabled ▾	AUTO ▾
UART2	◯ 116200 ▾	◯	Disabled ▾	AUTO ▾	Disabled ▾	AUTO ▾	VTX (IRC Tran ▾	AUTO ▾
UART3	◯ 115200 ▾	◯	Disabled ▾	AUTO ▾	Disabled ▾	AUTO ▾	Disabled ▾	AUTO ▾
UART4	◯ 115200 ▾	◯	Disabled ▾	AUTO ▾	Disabled ▾	AUTO ▾	Disabled ▾	AUTO ▾
UART6	◯ 116200 ▾	◯	Disabled ▾	AUTO ▾	ESC ▾	AUTO ▾	Disabled ▾	AUTO ▾

VTX serial port use. VTXusesOSD smart audio

1. VTX connection diagram
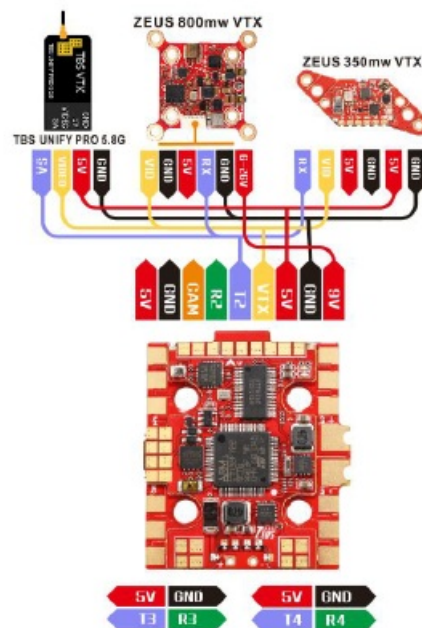
2. DJI FPV Air Unit wiring
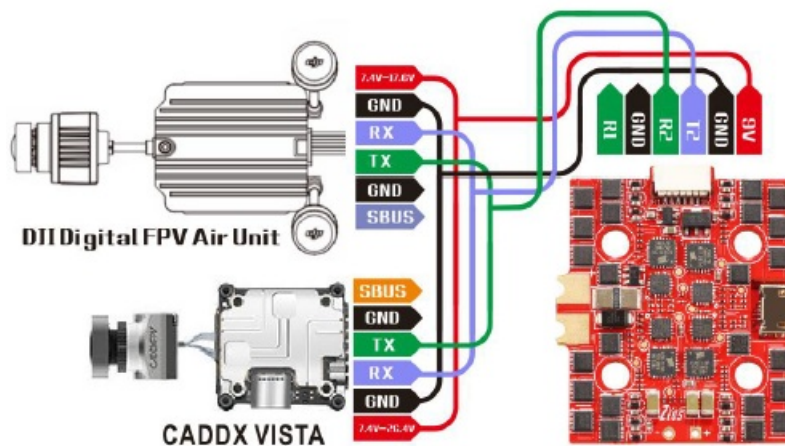
3. VTX serial port opens. The protocol is selected according to toits ownVTXprotocol.

| 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 ▼	Disabled ▼ AUTO ▼
UART2	◯ 115200 ▼	◯	Disabled ▼ AUTO ▼	Disabled ▼ AUTO ▼	VTX (IRC Tran ▼ AUTO ▼
UART3	◯ 115200 ▼	◯	Disabled ▼ AUTO ▼	Disabled ▼ AUTO ▼	Disabled ▼ AUTO ▼
UART4	◯ 115200 ▼	◯	Disabled ▼ AUTO ▼	Disabled ▼ AUTO ▼	Disabled ▼ AUTO ▼
UART6	◯ 115200 ▼	◯	Disabled ▼ AUTO ▼	ESC ▼ AUTO ▼	Disabled ▼ AUTO ▼

4. DJI serial port opens

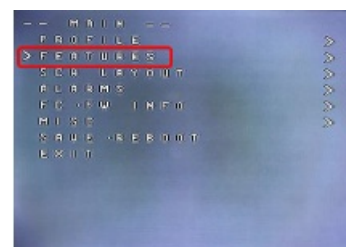| Identifier	Configuration/MSP	Serial Rx	Telemetry Output	Sensor Input	Peripherals
USB VCP	⬤ 115200 ▼	◯	Disabled ▼ AUTO ▼	Disabled ▼ AUTO ▼	Disabled ▼ AUTO ▼
UART1	◯ 115200 ▼	⬤	Disabled ▼ AUTO ▼	Disabled ▼ AUTO ▼	Disabled ▼ AUTO ▼
UART2	⬤ 115200 ▼	◯	Disabled ▼ AUTO ▼	Disabled ▼ AUTO ▼	Disabled ▼ AUTO ▼
UART3	◯ 115200 ▼	◯	Disabled ▼ AUTO ▼	Disabled ▼ AUTO ▼	Disabled ▼ AUTO ▼
UART4	◯ 115200 ▼	◯	Disabled ▼ AUTO ▼	Disabled ▼ AUTO ▼	Disabled ▼ AUTO ▼
UART6	◯ 115200 ▼	◯	Disabled ▼ AUTO ▼	ESC ▼ AUTO ▼	Disabled ▼ AUTO ▼

Use OSD to adjust VTX

- which displays information like battery voltage and mAh consumed while you fly. In addition, the theBetaflight OSD can be used to configure the quadcopter, making in-field adjustments and tuningmoreconvenient.
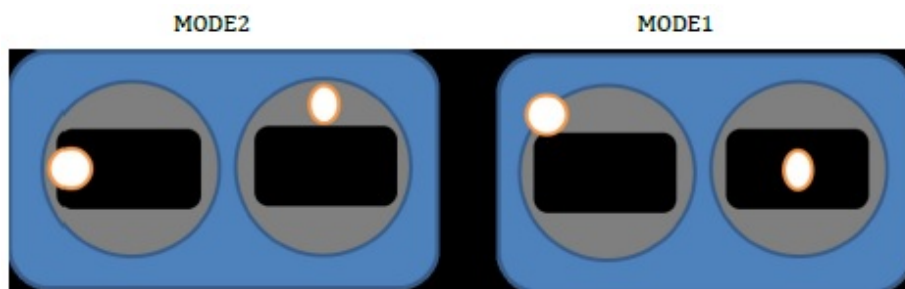
- The graphics above show the stick command to bring up the OSD menu. The stick command is throttle centered, yaw left, and pitch forward. The exact stick command, therefore, depends on which modeyourtransmitter sticks are in. In the OSD menu, use pitch up/down to move the cursor between menu items. 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, on 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 the battery voltage is too low or the mAh consumed is too high.
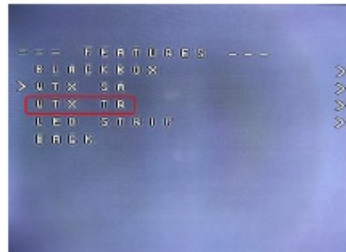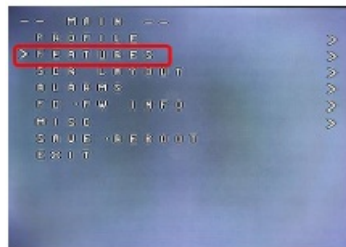
- When a parameter can be modified, the parameter's current value will be shown on the right-hand side of the screen. In this case, rolling left/right will adjust the parameter up and down.
- The screen to the right shows the current vTX settings. From here, you can change the frequency band, channel, and power level of the video transmitter. After making the changes, move the cursor to "Set" and press roll-right to confirm the settings.

GPS parameterssetting

1. GPS connection diagram
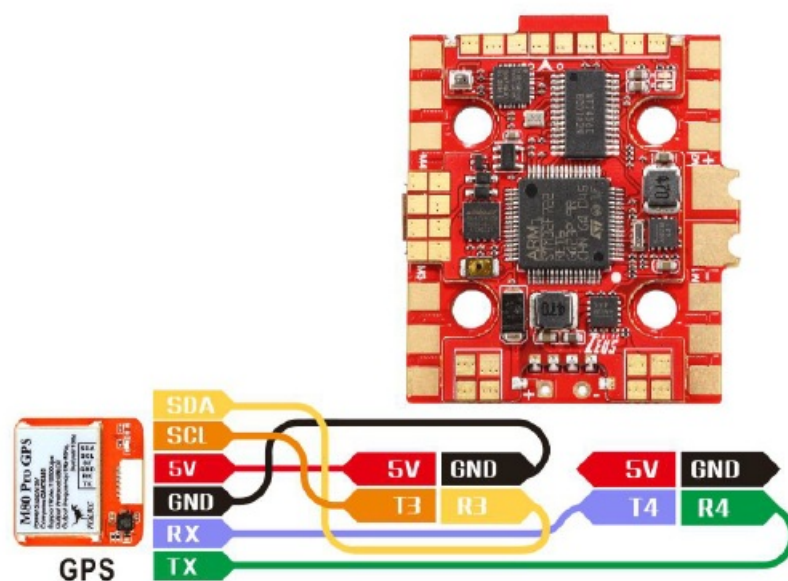
2. Open the GPS serial port

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 ▾	Disabled ▾	AUTO ▾
UART2	115200 ▾		Disabled ▾	AUTO ▾	Disabled ▾	AUTO ▾	Disabled ▾	AUTO ▾
UART3	57600 ▾		Disabled ▾	AUTO ▾	Disabled ▾	AUTO ▾	Disabled ▾	AUTO ▾
UART4	115200 ▾		Disabled ▾	AUTO ▾	GPS ▾	115200 ▾	Disabled ▾	AUTO ▾
UART6	115200 ▾		Disabled ▾	AUTO ▾	Disabled ▾	AUTO ▾	Disabled ▾	AUTO ▾

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.

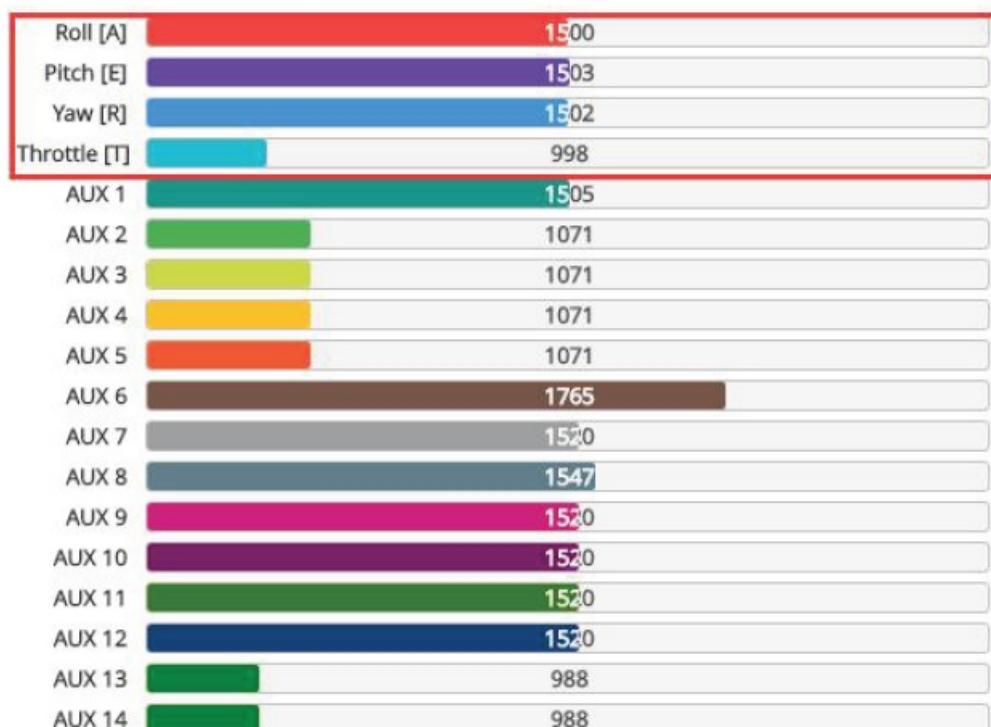UBLOX ▾ — Protocol

Auto Baud

Auto Config

Auto-detect ▾ — Ground Assistance Type

0.00 — Magnetometer Declination [deg]

Check receiver signal

1. Click Check the remote control output signal

Channel	Value
Roll [A]	1500
Pitch [E]	1503
Yaw [R]	1502
Throttle [T]	998
AUX 1	1505
AUX 2	1071
AUX 3	1071
AUX 4	1071
AUX 5	1071
AUX 6	1765
AUX 7	1520
AUX 8	1547
AUX 9	1520
AUX 10	1520
AUX 11	1520
AUX 12	1520
AUX 13	988
AUX 14	988

Select flight modestartupmode

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

OSD settings

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

LED settings

1. Click Turn on LED support

2.Click .Click   Wire Ordering Mode   set according to

2. Click. Click set according to the need
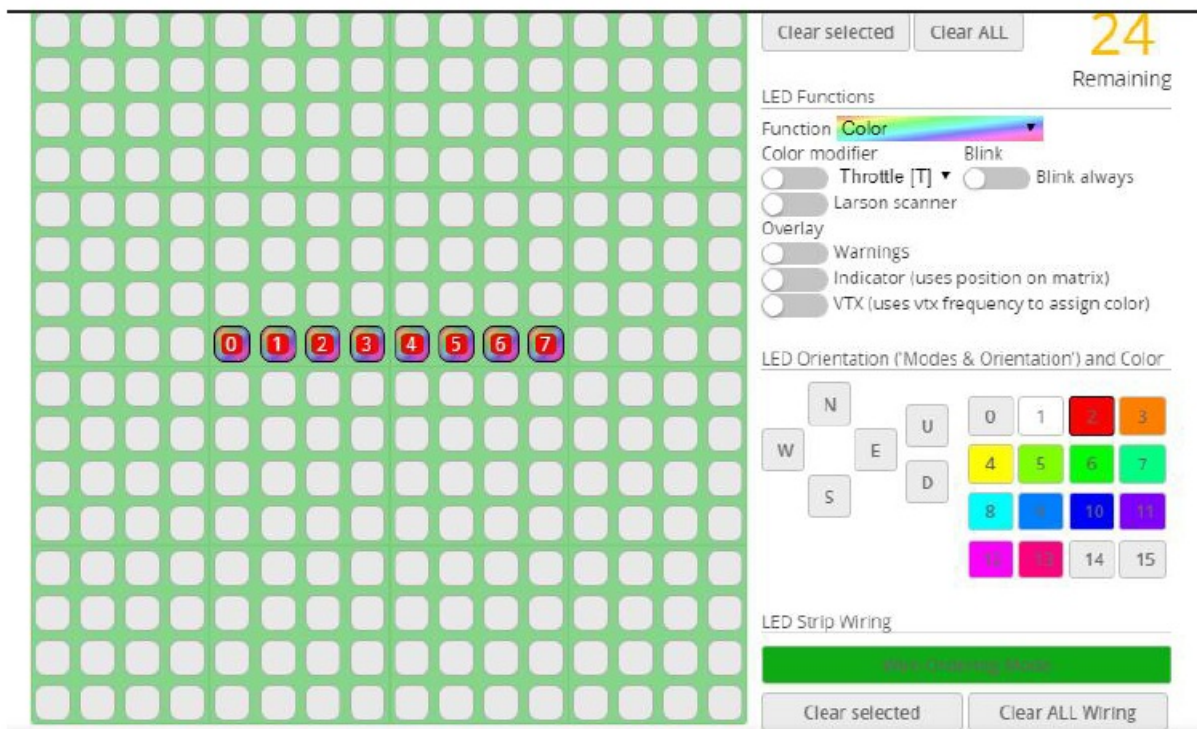
Troubleshooting

Warning:

- Please read the cautions as follows, otherwise stability of your flight controller cannot be ensured, your flight controller will evenget 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 cannot be used normally. If the return to the factory is a quality problem, the repairservice 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 canberepaired.
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

OSD garbled:

1. If you find garbled characters, please open Betaflight, click "OSD" .and click "Font Manager" clicks on "Upload Font" to update
2. When plugged in the battery, the aircraft does not pass the self-test without a "BBB" sound. There is only one sound. Please check if the ESC agreement is correct

3. The spin of aircraft keeps spinning

4. Please check if the propeller is correct

5. Please check if the motor direction is correct

- **www.hglrc.com**

Documents / Resources

Zeus35 Pro AIO Flight Controller Manual www.hglrc.com	**HGLRC Zeus35 Pro AIO Flight Controller** [pdf] User Manual Zeus35 Pro AIO Flight Controller, Zeus35 Pro, AIO Flight Controller, Flight Controller, Controller