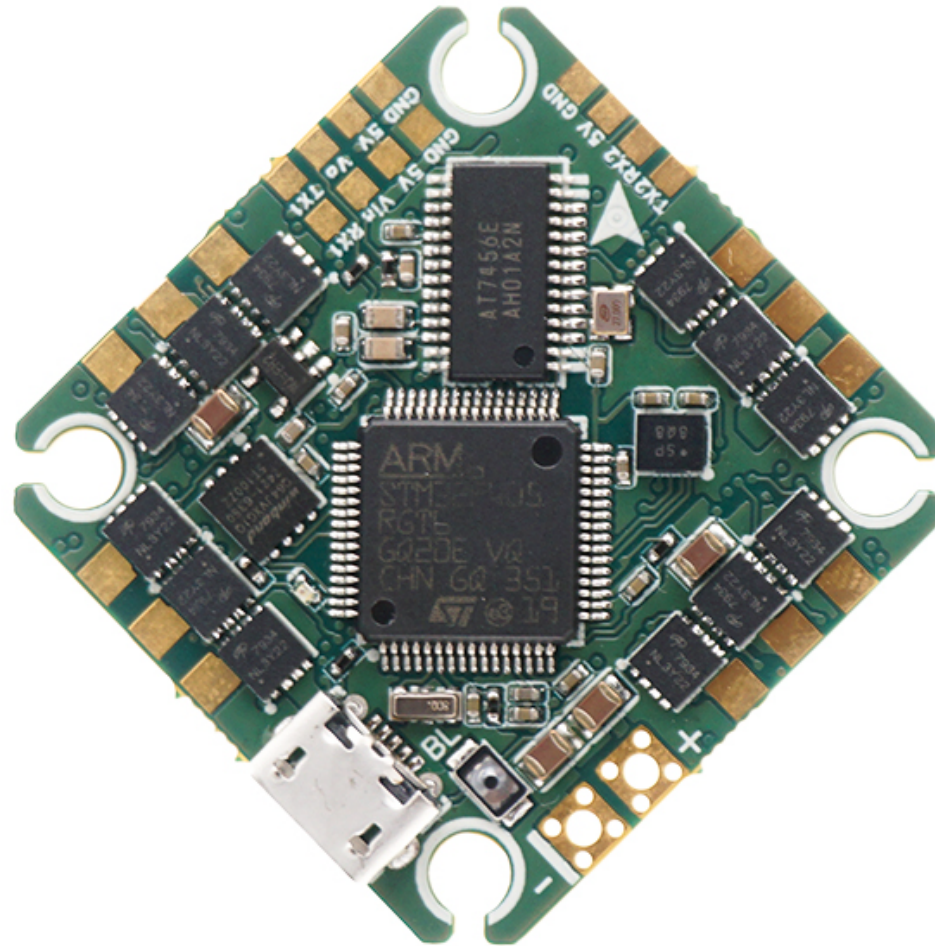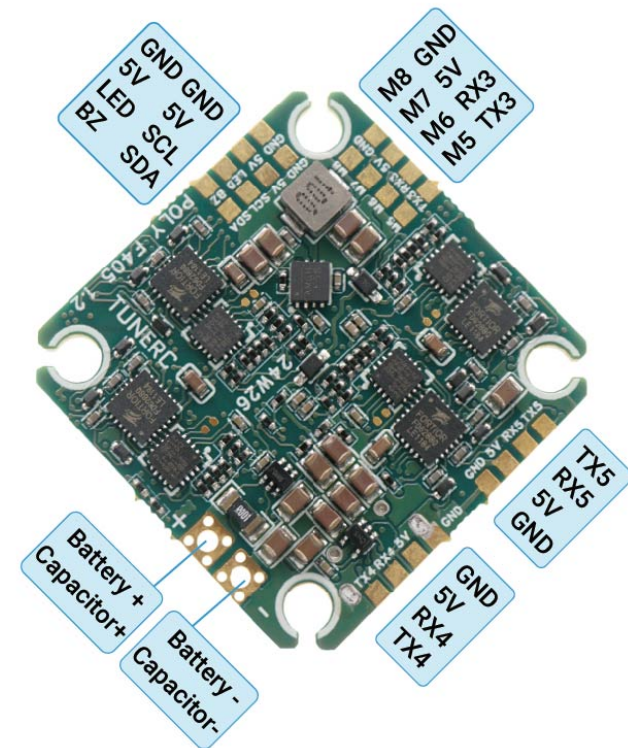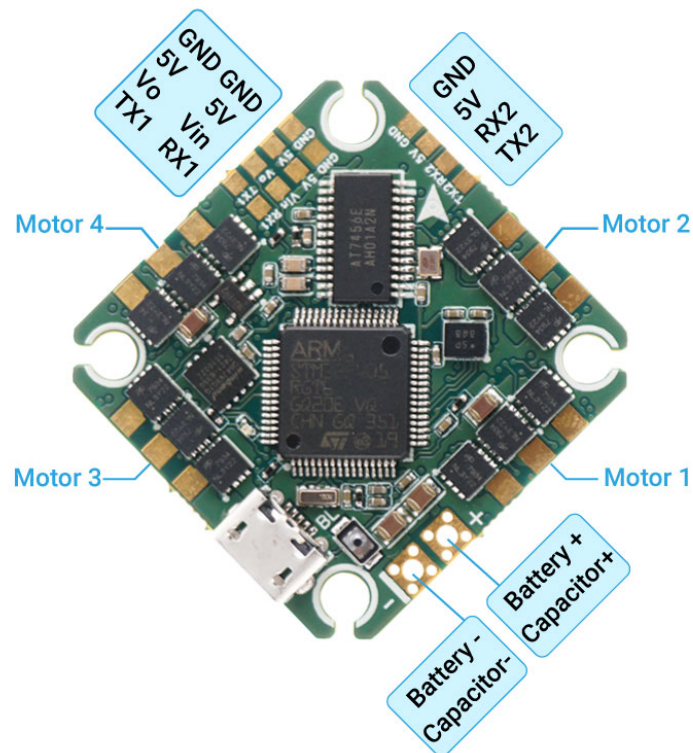# Wiring Diagram for Poly F405 2S-4S AIO V1.2

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Pinout Diagram for Poly F405 V1.2

GND GND
5V
Vo Vin
TX1 RX1

GND
5V
RX2
TX2

Motor 4

Motor 2

Motor 3

Motor 1

Battery +
Capacitor+

Battery -
Capacitor-

GND GND
5V 5V
LED SCL
BZ SDA

M8 GND
M7 5V
M6 RX3
M5 TX3

TX5
RX5
5V
GND
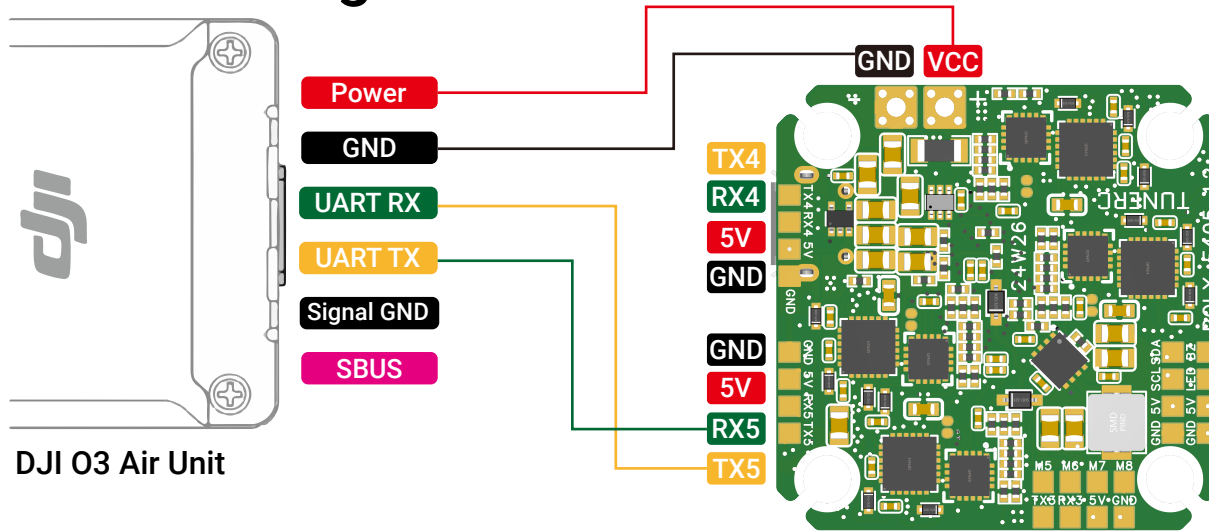
Battery +
Capacitor+

Battery -
Capacitor-

GND
5V
RX4
TX4

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ELRS/ TBS Crossfire Receiver/ Analog System Wiring

Analog Camera

- RX
- TX
- Vbat
- Video
- GND
- 5V

Analog VTX

- 3-13V IN
- GND
- 5V OUT
- GND
- Video
- Signal

GND 5V RX2 TX2

GND GND
5V 5V
Vo Vin
TX1 RX1

RX
TX
VCC
GND

ExpressLRS Receiver

CH2
CH1
5V
GND

Crossfire Receiver

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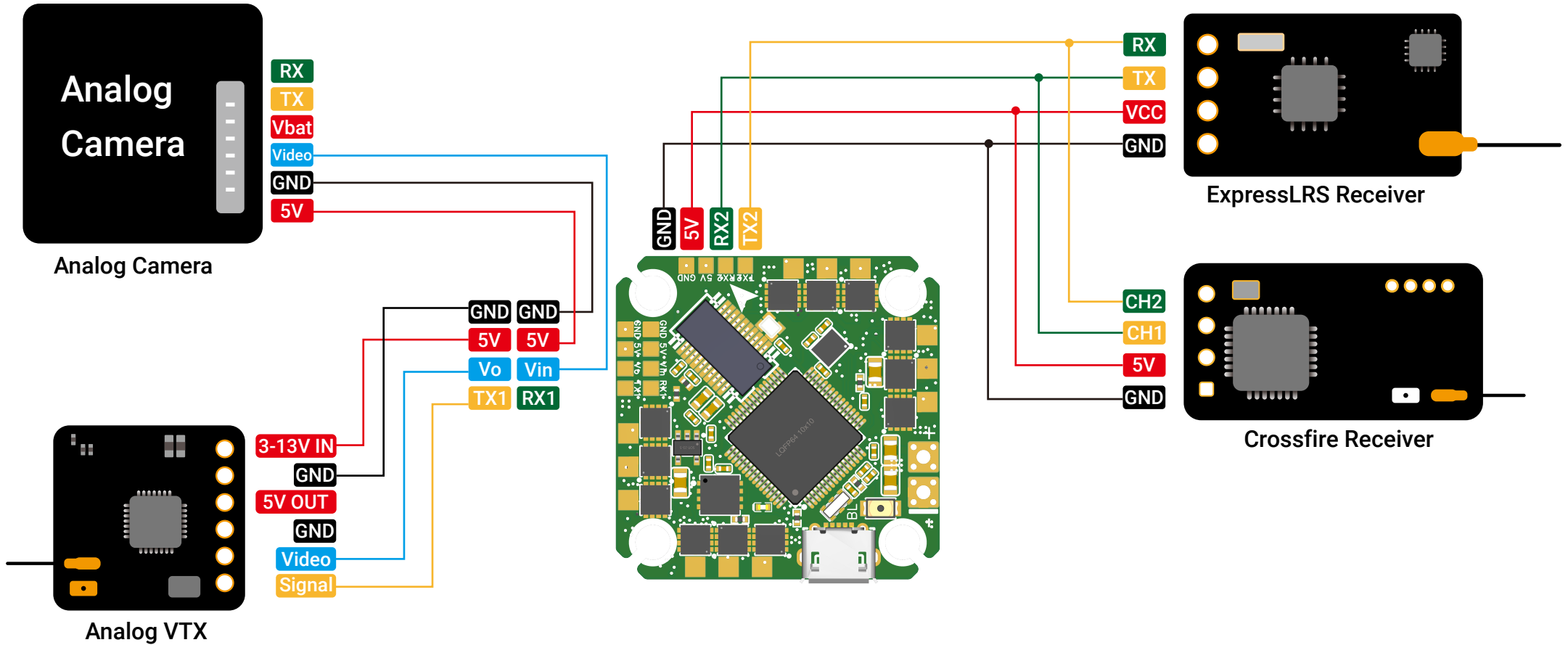
GPS/ LED/Buzzer/SBUS Receiver Wiring

GPS+Magnetometer Module

TUNERC Buzzer
with built-in driver circuit

SBUS Receiver

TUNERC

DJI O3 Wiring

DJI O3 Air Unit (Diagram 1)

Power
GND
UART RX
UART TX
Signal GND
SBUS

GND | VCC

TX4
RX4
5V
GND

GND
5V
RX5
TX5

DJI O3 Air Unit
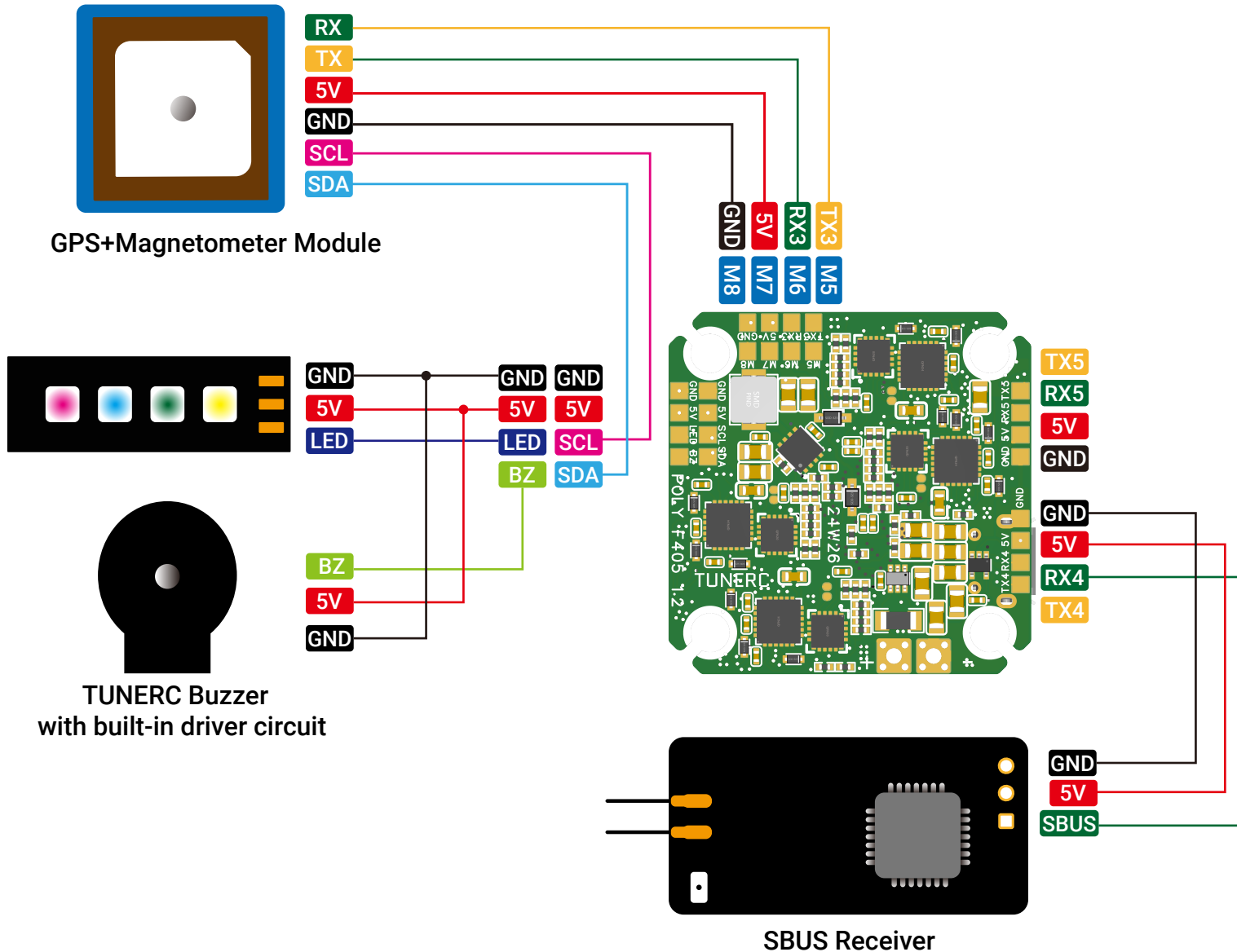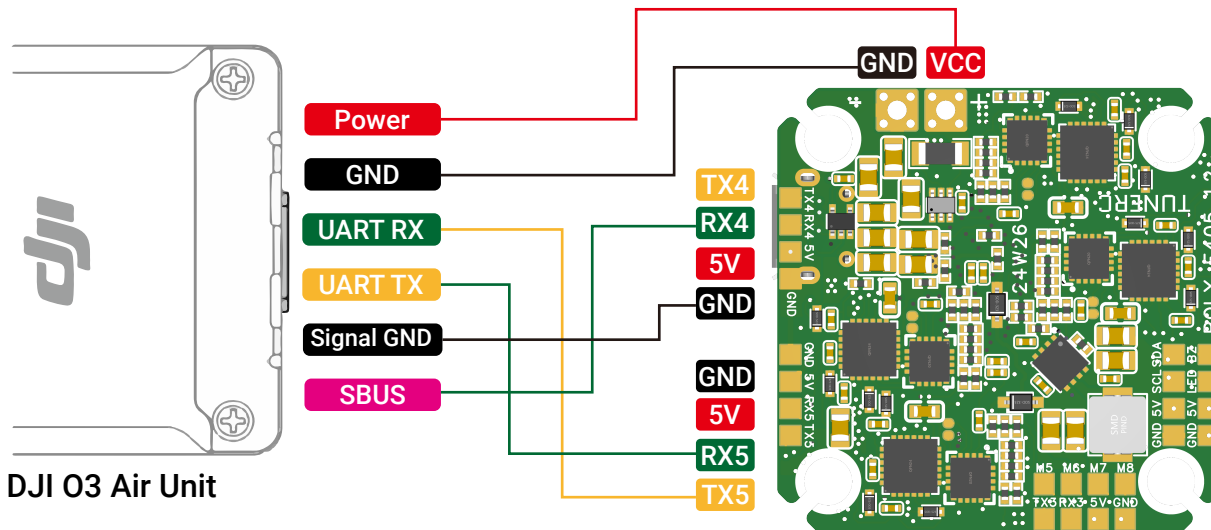
In general. you can wire the DJI 03 unit to any free UART on the Poly board.

For users that don't use DJI radio controller, please refer to this diagram.

You don't need to wire the "Signal GND" and "SBUS" wire from the DJI VTX plug.

DJI O3 Air Unit (Diagram 2)

Power
GND
UART RX
UART TX
Signal GND
SBUS

GND | VCC

TX4
RX4
5V
GND

GND
5V
RX5
TX5

DJI O3 Air Unit

For users that use DJI radio controller, please refer to this diagram.

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HDZero Whoop Lite VTX Wiring

HDZero Whoop Lite VTX
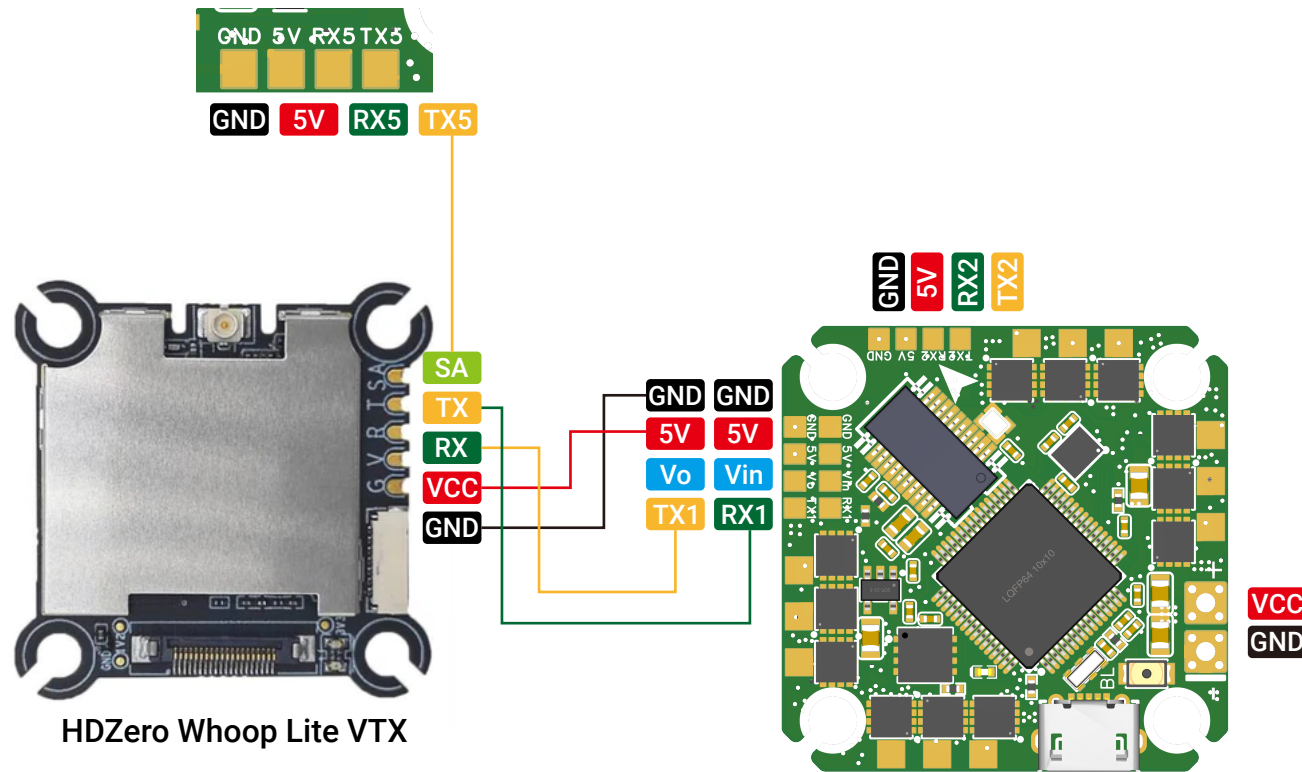
Actually, you can wire HDZero Whoop Lite VTXto any sapre UART pads on Poly F405 board.
The wiring diagram above is only for reference.

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ELRS/ TBS Crossfire Receiver Betaflight Setup

In Betaflight 4.5, under "Ports"tab, enable "Serial Rx"under corresponding uart you set for the RX.

Under "Receiver"tab, choose "Serial (via UART)" receiver mode and "CRSF" serial receiver provider.

TUNERC

SBUS Receiver Betaflight Setup

In Betaflight 4.5, under "Ports"tab, enable "Serial Rx"under corresponding uart you set for the RX.

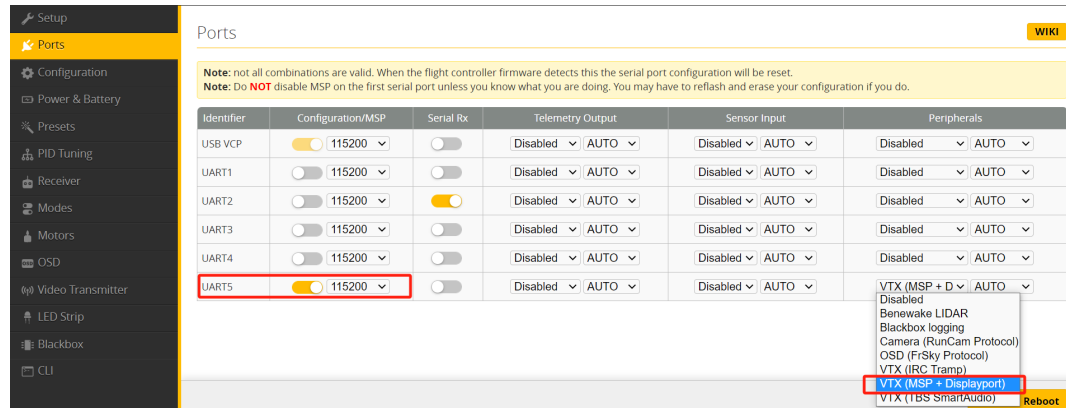|	Setup
	Ports
	Configuration
	Power & Battery
	Presets
	PID Tuning
	Receiver
	Modes
	Motors
	OSD
	Video Transmitter
	Blackbox

Ports

WIKI

Note: not all combinations are valid. When the flight controller firmware detects this the serial port configuration will be reset.
Note: Do **NOT** disable MSP on the first serial port unless you know what you are doing. You may have to reflash and erase your configuration if you do.

WARNING: The VTX table has not been set up correctly and without it VTX control will not be possible. Please set up the VTX table in Video Transmitter tab.
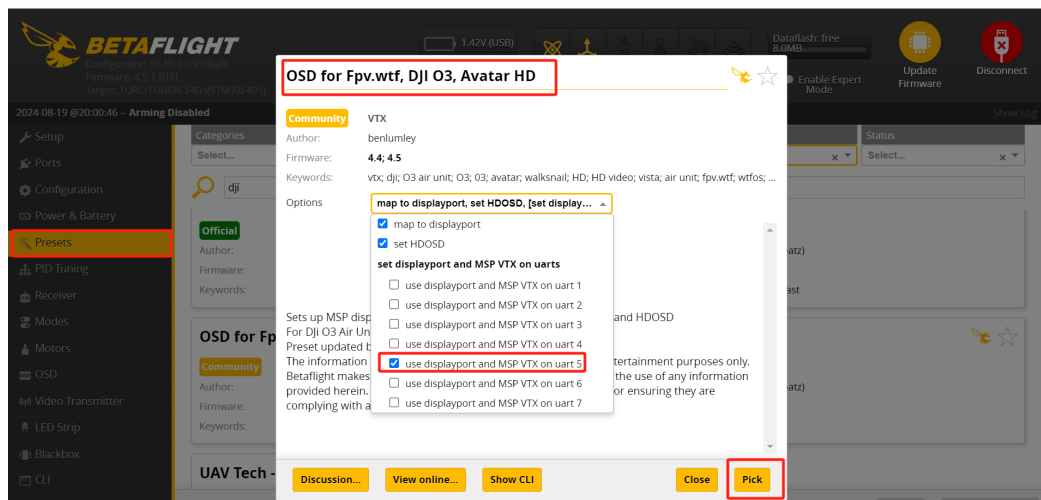
Identifier	Configuration/MSP	Serial Rx	Telemetry Output	Sensor Input	Peripherals
USB VCP	⬤ 115200	◯	Disabled / AUTO	Disabled / AUTO	Disabled / AUTO
UART1	◯ 115200	◯	Disabled / AUTO	Disabled / AUTO	Disabled / AUTO
UART2	◯ 115200	◯	Disabled / AUTO	Disabled / AUTO	Disabled / AUTO
UART3	◯ 115200	◯	Disabled / AUTO	Disabled / AUTO	Disabled / AUTO
UART4	◯ 115200	⬤	Disabled / AUTO	Disabled / AUTO	Disabled / AUTO
UART5	◯ 115200	◯	Disabled / AUTO	Disabled / AUTO	Disabled / AUTO

Under "Receiver"tab, choose "Serial (via UART)" receiver mode and "SBUS" serial receiver provider.

	Setup
	Ports
	Configuration
	Power & Battery
	Presets
	PID Tuning
	Receiver
	Modes
	Motors
	OSD
	Video Transmitter

Receiver

WIKI

- **Always check that your Failsafe is working properly!** The settings are in the Failsafe tab, which requires Expert Mode.
- **Use the latest Tx firmware!**
- **Disable the hardware ADC filter** in the Transmitter if using OpenTx or EdgeTx.

Basic Setup: Configure the 'Receiver' settings correctly. Choose the correct 'Channel Map' for your radio. Check that the Roll, Pitch and other bar graphs move correctly. Adjust the channel endpoint or range values in the transmitter to ~1000 to ~2000, and set the midpoint to 1500. For more information, read the **documentation**.

Preview

Receiver

Serial (via UART) — Receiver Mode

- The UART for the receiver must be set to 'Serial Rx' (in the *Ports* tab)
- Select the correct data format from the drop-down, below:

SBUS — Serial Receiver Provider

TUNERC

Analog VTX Betaflight Setup

In Betaflight 4.5, under "Ports"tab, choose "VTX (TBS Smart Audio)"
under corresponding uart you set for the analog VTX.

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DJI O3 Betaflight Setup

1. In Betaflight 4.5, under "Ports" tab, please enable "Configuration MSP"
and choose"VTX (MSP + Displayport)" for corresponding UART you set for DJI O3 VTX.

1.2. Under "Presets" tab, search DJI OSD, select "OSD for Fpv.wtf, DJI O3, Avatar HD "
and select the corresponding uartyou set for the DJI VTX under "Options", finally click "Pick"

HDZero WhoopLite VTX Betaflight Setup

1.In Betaflight 4.5, under"Ports" tab, please enable "Configuration MSP"
and choose"VTX (MSP + Displayport)" for corresponding UART.

2. To setup smart audio in Betaflight 4.5, please choose "VTX (Smartaudio)" under"Peripherals" for the correspondin UART.

3. Under "Presets" tab, search "HDZero VTXs "and
select the corresponding UART you set for the HDZero VTX under "Options", finally click "Pick"

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