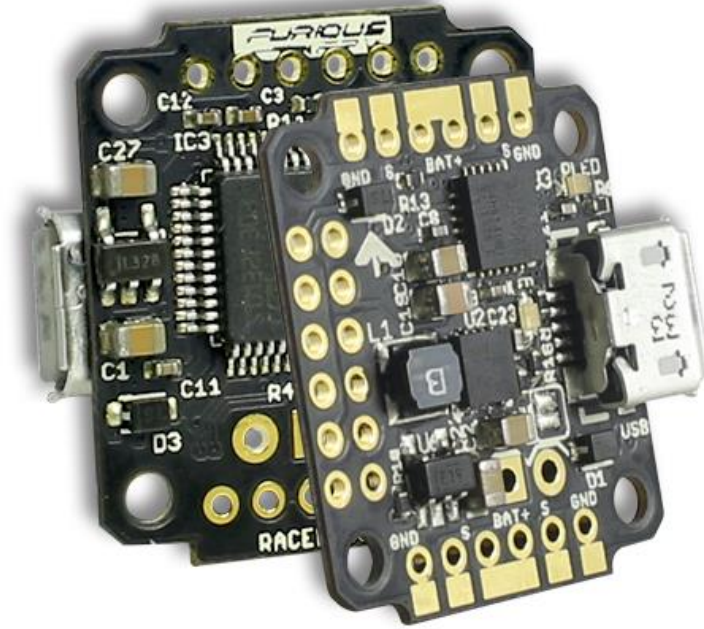


RACEWHOP Flight Controller – Manual User

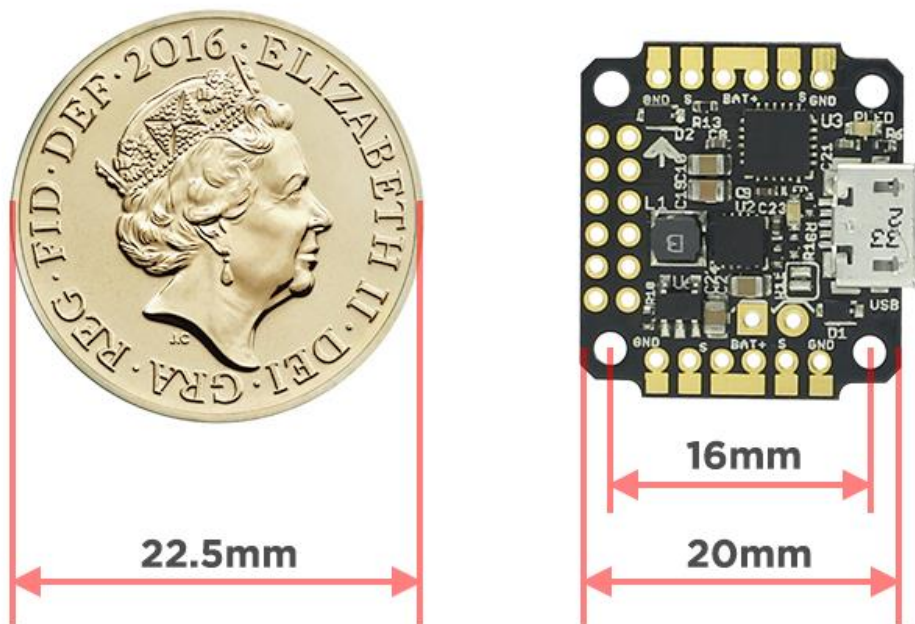


Contents

Features & Capabilities:	3
Serial based receiver support	4
Diagram connection	5
Connect with FrSky Receiver	5
FrSky XM+ receiver	5
FrSky XM receiver	5
Furious FPV FrSky LR1000 / LR1000D receiver	7
Satellite Spektrum	8
Software	9
Firmware:	9
Software:	9
Support:	9

Features & Capabilities:

- Micro flight controller with F3 chip / MPU 6000
- Smallest Flight controller for micro brushless 20x20mm with hole to hole 16x16
- Lightweight 1.7 gram
- Power input 1-2s LiPo battery
- Support ESC protocol: One Shot, Multi Shot and D Shot 100/300
- Micro flight controller with PDB built-in up to 15Ampe
- Current sensor built in
- Heavy duty 1.5A BEC @ 5V output built-in
- Buzzer port
- Gold plated dads for the very best connectivity
- Firmware perfection via CleanFlight & BetaFlight
- Support telemetry
- Full USB support
- Ultra compact design for ease of installation
- BLHeli ESC Pass through works fine on Racewhoop.
- Receiver mode - serial based receiver



Serial based receiver support

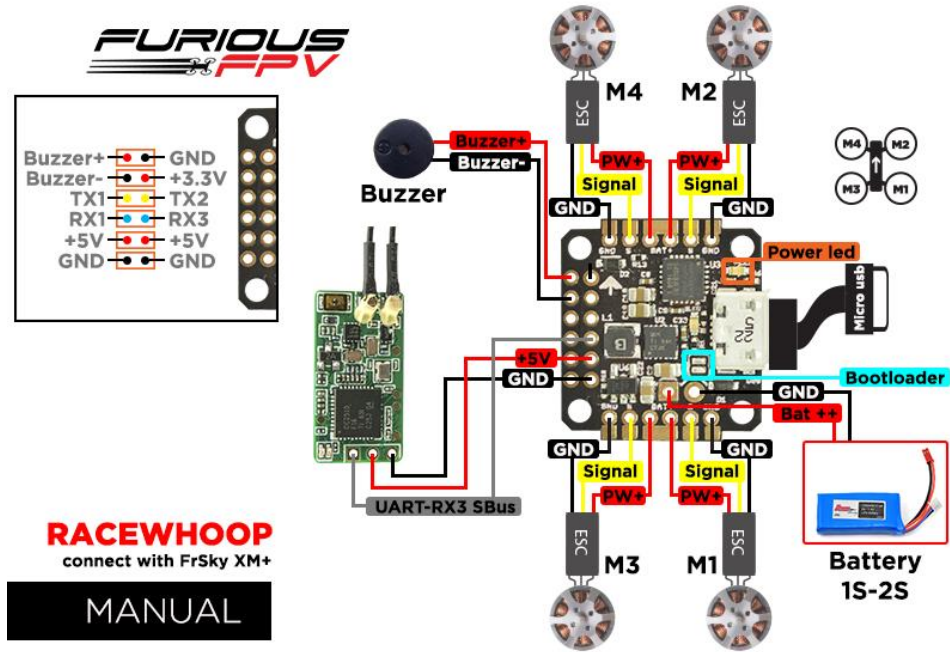
If you are using SBus, iBus or a Spektrum Satellite, you will need to pick your Serial Receiver Provider. Follow this table:

RX Type	Serial Receiver Provider
DSM2 Satellite	SPEKTRUM1024
DSMX Satellite	SPEKTRUM2048
FrSky RX	SBUS
Futaba RX	SBUS
FlySky RX	IBUS
Turnigy RX	IBUS

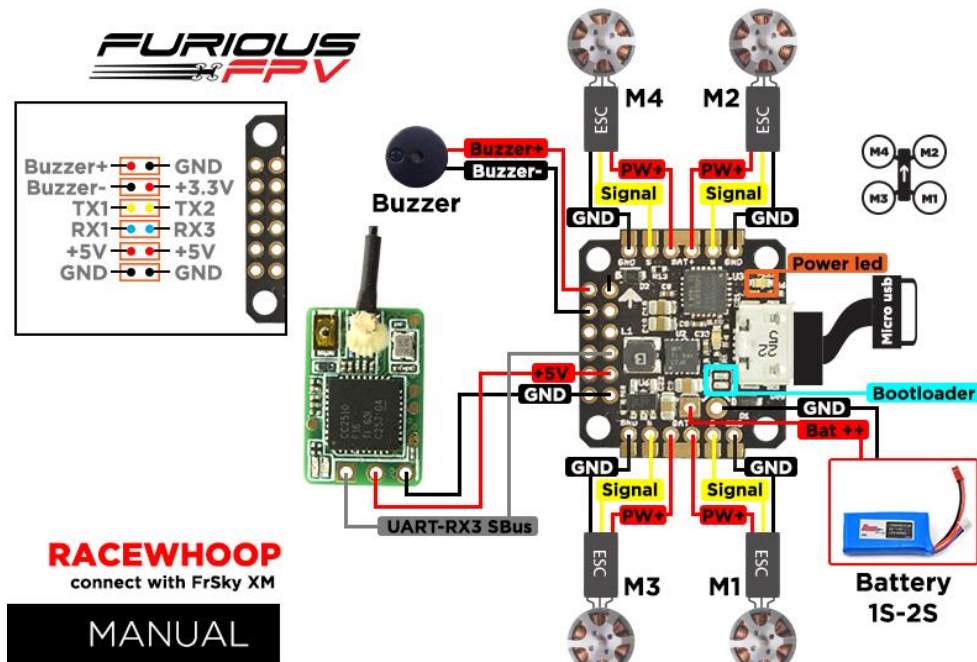
Diagram connection.

Connect with FrSky Receiver

FrSky XM+ receiver



FrSky XM receiver



Port configure:

2017-02-10 @ 13:49:10 – Unique device ID received - 0x1700245533571920363736

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.

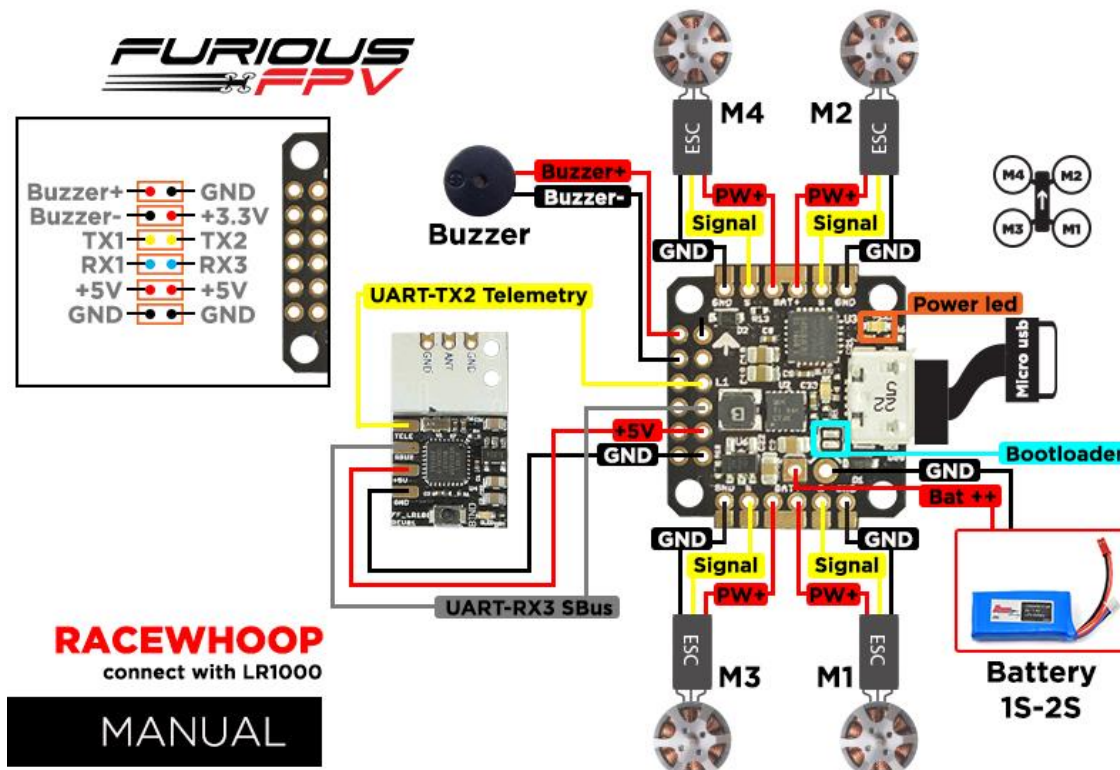
Port Identifier	Configuration	Serial Rx	Telemetry Output		Sensor Input		Peripherals	
USB VCP	<input checked="" type="checkbox"/> MSP 115200	<input type="checkbox"/> Serial RX	Disabled	AUTO	Disabled	AUTO	Disabled	AUTO
UART1	<input checked="" type="checkbox"/> MSP 115200	<input type="checkbox"/> Serial RX	Disabled	AUTO	Disabled	AUTO	Disabled	AUTO
UART2	<input type="checkbox"/> MSP 115200	<input type="checkbox"/> Serial RX	Disabled	AUTO	Disabled	AUTO	Disabled	AUTO
UART3	<input type="checkbox"/> MSP 115200	<input checked="" type="checkbox"/> Serial RX	Disabled	AUTO	Disabled	AUTO	Disabled	AUTO

Save and Reboot

Port utilization: D: 10% U: 1% Packet error: 0 I2C error: 0 Cycle Time: 135 CPU Load: 17% 1.9.1

NOTE: When use FrSky XM / XM+ receiver you need **TURN ON Sbus inversion** in CLI tab. See guide set **SBUS** at here.

Furious FPV FrSky LR1000 / LR1000D receiver



Port configure:

BETAFLIGHT
 CONFIGURATOR 1.9.1

2017-02-11 @ 10:19:04 - Unique device ID received: 0x32002b5733570c20323232

Ports

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.

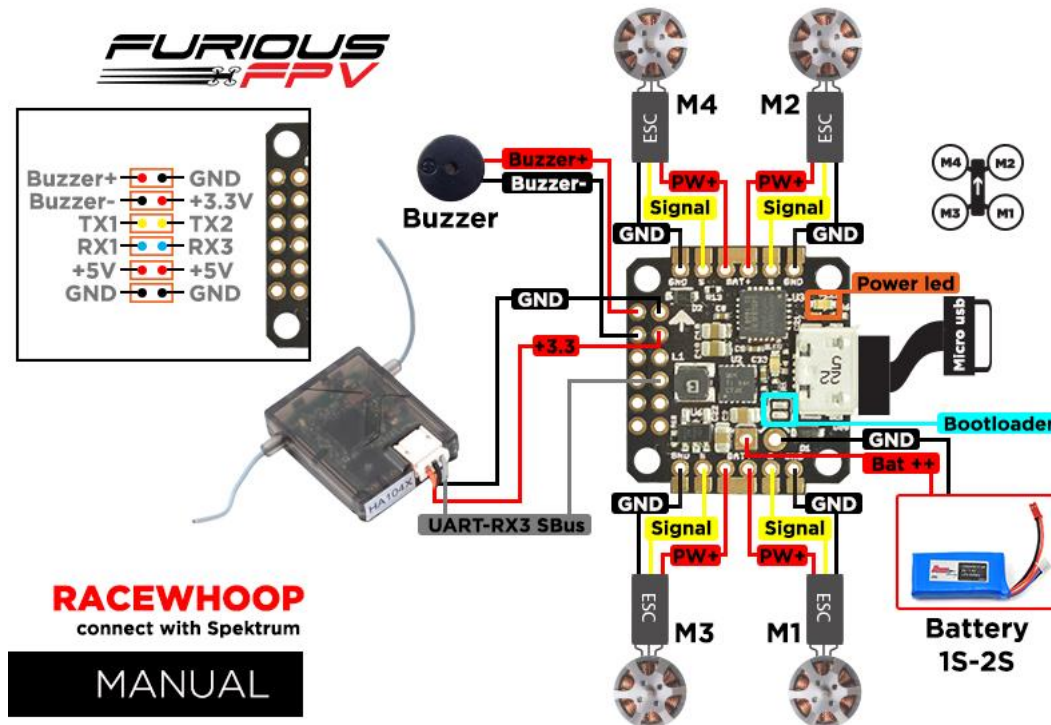
Port Identifier	Configuration	Serial Rx	Telemetry Output	Sensor Input	Peripherals
USB VCP	<input checked="" type="checkbox"/> MSP 115200	<input type="checkbox"/> Serial RX	Disabled AUTO	Disabled AUTO	Disabled AUTO
UART1	<input checked="" type="checkbox"/> MSP 115200	<input type="checkbox"/> Serial RX	Disabled AUTO	Disabled AUTO	Disabled AUTO
UART2	<input type="checkbox"/> MSP 115200	<input type="checkbox"/> Serial RX	FrSky AUTO	Disabled AUTO	Disabled AUTO
UART3	<input type="checkbox"/> MSP 115200	<input checked="" type="checkbox"/> Serial RX	Disabled AUTO	Disabled AUTO	Disabled AUTO

Save and Reboot

Port utilization: D: 9% U: 1% Packet error: 0 I2C error: 0 Cycle Time: 129 CPU Load: 19%

NOTE: When use FrSky XM / XM+ receiver you need TURN OFF Sbus inversion in CLI tab (Default is Turn Off). See guide set SBUS at here.

Satellite Spektrum



Port configure:

Port Identifier	Configuration	Serial Rx	Telemetry Output	Sensor Input	Peripherals
USB VCP	<input checked="" type="checkbox"/> MSP 115200	<input type="checkbox"/> Serial RX	Disabled AUTO	Disabled AUTO	Disabled AUTO
UART1	<input checked="" type="checkbox"/> MSP 115200	<input type="checkbox"/> Serial RX	Disabled AUTO	Disabled AUTO	Disabled AUTO
UART2	<input type="checkbox"/> MSP 115200	<input type="checkbox"/> Serial RX	Disabled AUTO	Disabled AUTO	Disabled AUTO
UART3	<input type="checkbox"/> MSP 115200	<input checked="" type="checkbox"/> Serial RX	Disabled AUTO	Disabled AUTO	Disabled AUTO

You can use Betaflight to bind receiver with transmitter with **CLI**. See clip guide Bind Satellite at here.

Software

Firmware:

Acrowhoop FC use **Betaflight** hex you can download directly from FuriousFPV product page.

[Download at here](#)

Software:

[Download Betaflight](#)

Support:

Sale: sales@furiousfpv.com

Technical: tech@furiousfpv.com

Facebook: [Furious FPV Official Public Group](#)