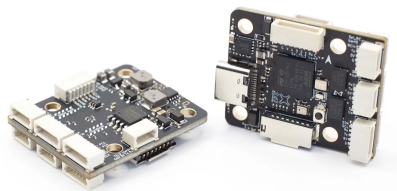


# NxtPX4v2

STM32H743VIH6, BMIO88+BMIO88(DUAL), SPLO6, 7xUART, 8xPWM, 1xSPI,  
5V 2.5A BEC, 12V 2.5A BEC



## NxtPX4v2 Flight Controller

A super small but ultra high-performance PX4 flight controller.

### Gallery

### Spec.

#### Specifications

- MCU: STM32H743VIH6, 480MHz, 2MB Flash
- IMU: BMIO88+BMIO88(DUAL)
- Baro: SPLO6
- MicroSD Card Slot
- 7x UART
- 8x PWM
- 1x I2C

- 1x SPI
- 1x SWD
- 2x ADC (VBAT, Current)
- USB Type-C
- BEC 5V 2.5A output (for controller, receiver, GPS, optical flow or other devices)
- BEC 12V 2.5A output (for video transmitter, camera)

### UART Mapping(Ardupilot)

- SERIAL0 -> USB
- SERIAL1 -> UART2
- SERIAL2 -> UART4
- SERIAL3 -> UART1 (GPS)
- SERIAL4 -> UART3 (DJI-O3)
- SERIAL5 -> UART7 (ESC Telemetry)
- SERIAL6 -> UART5 (RCIN)
- SERIAL7 -> UART8

### UART Mapping(PX4)

- TELEM1 -> UART2
- TELEM2 -> UART4
- TELEM3 -> UART7 (ESC Telemetry)
- SERIAL4 -> UART8
- GPS1 -> UART1
- GPS2 -> UART3
- Radio Controller -> UART5 (RCIN)

### RC Input

The default RC input port supports SBUS and CRSF protocol.

Set **SERIAL6\_PROTOCOL=23** on Ardupilot or set **RC\_INPUT\_PROTO = Auto** on PX4.

### VTX Support

The SH1.0-6P connector supports a **DJI O3 Air Unit** connection. Pin 1 of the connector is 12v so be careful not to connect this to a peripheral requiring 5v.

### PWM Output

The NxtPX4v2 supports up to 8 PWM outputs. Channels 1-8 support DShot.

### Battery Monitoring

The board has a internal voltage sensor and connections on the ESC connector for an external current sensor input.

## Compass

The NxtPX4v2 does not have a built-in compass, but you can attach an external compass using I2C on the SDA and SCL connector.

## Physical

- Mounting: 20 x 20mm,  $\Phi$ 3mm
- Dimensions: 27 x 32 x 8 mm
- Weight: 6.5g
- [3D Model\(stp\)](#)

## Ports

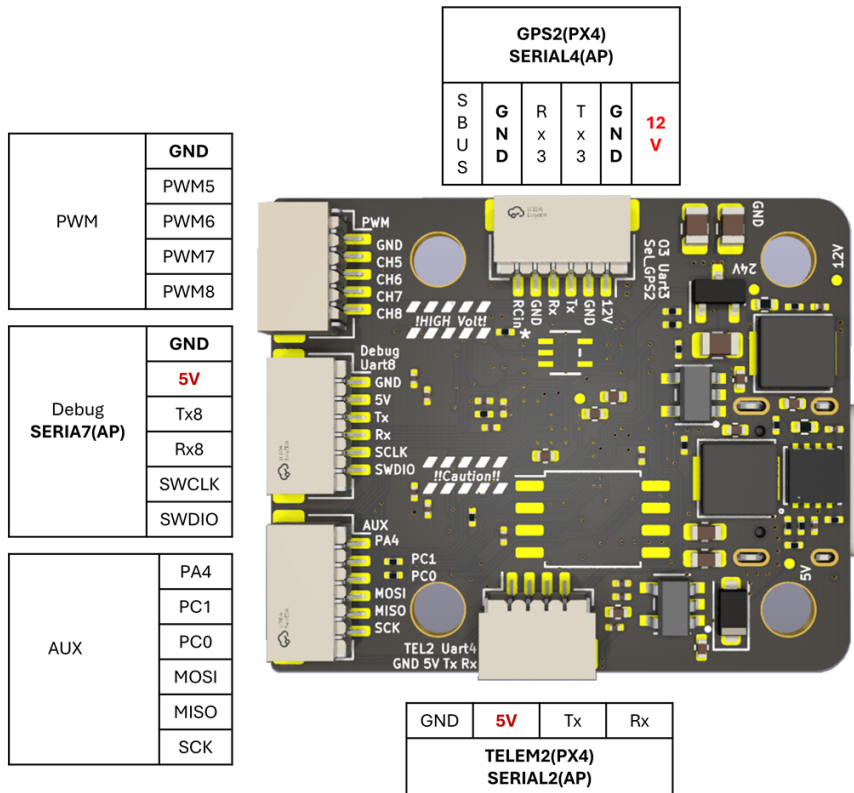
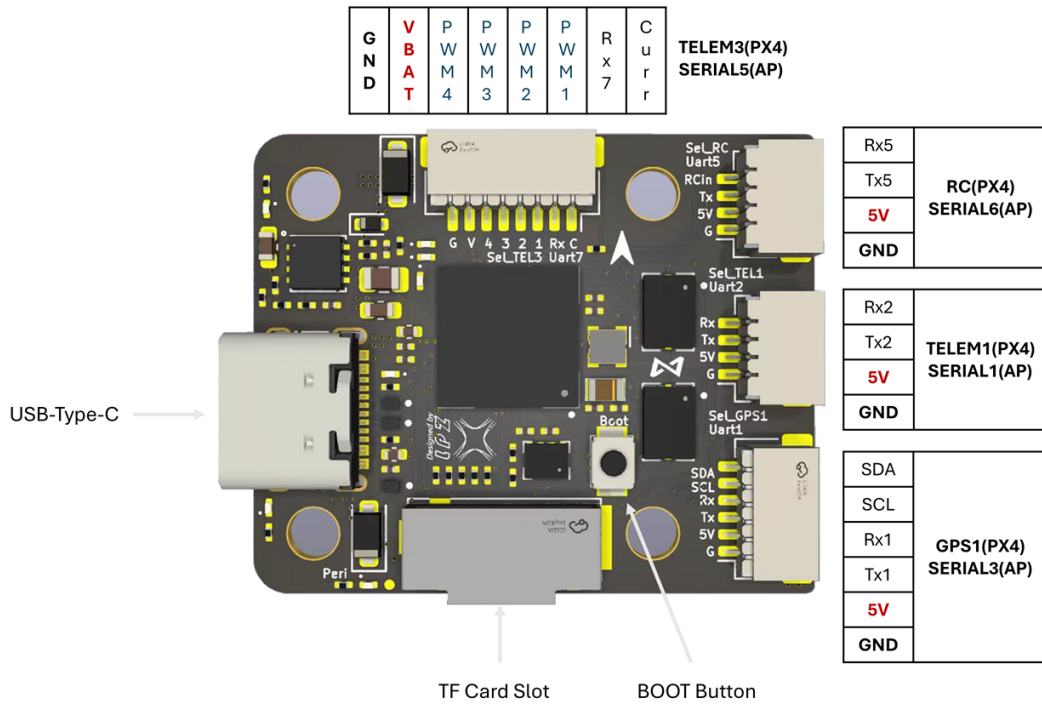
## Diagram

## Hardware

## Firmware

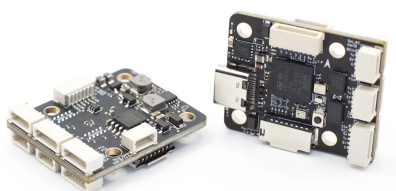
## Buy Now

# NxtPX4v2 Ports



# NxtPX4v2

STM32H743VIH6, BMI088+BMI088(DUAL), SPLO6, 7xUART, 8xPWM, 1xSPI,  
5V 2.5A BEC, 12V 2.5A BEC



## NxtPX4v2 Flight Controller

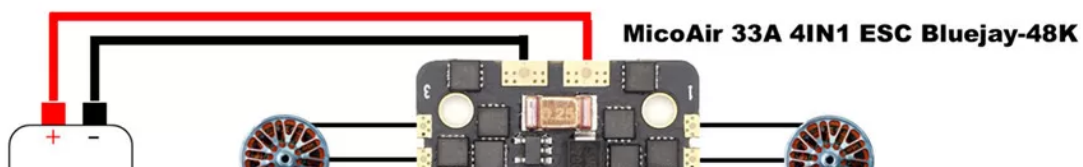
A super small but ultra high-performance PX4 flight controller.

[Gallery](#)

[Spec.](#)

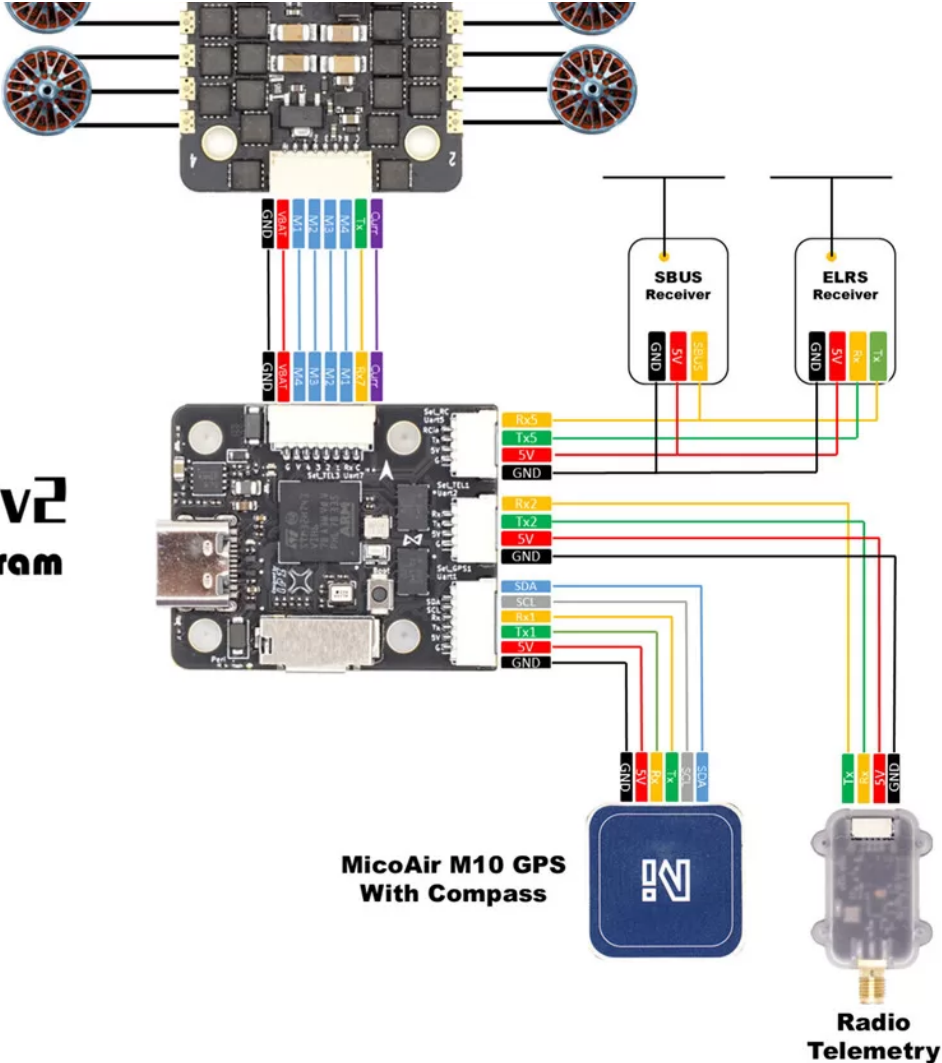
[Ports](#)

[Diagram](#)



**2-6S  
Li-po  
Battery**

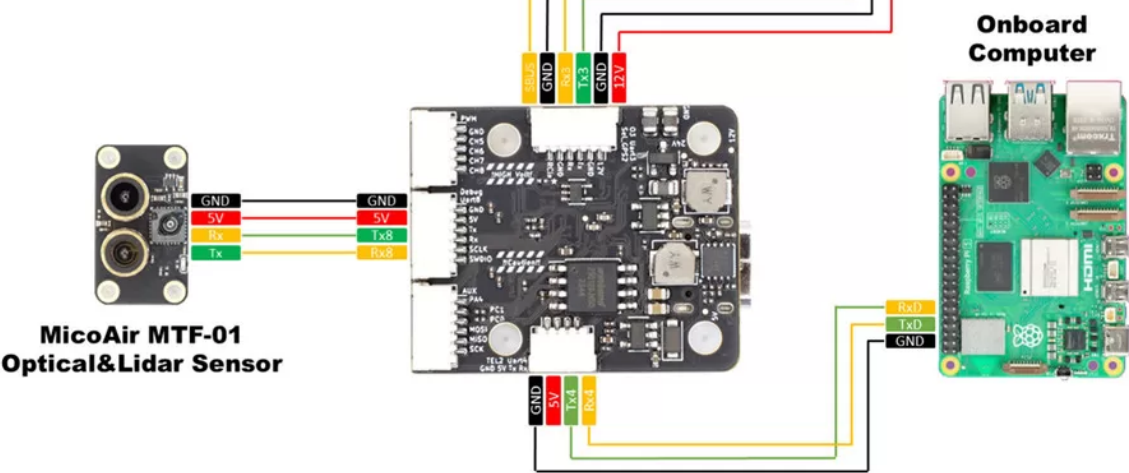
# NxtPX4v2 Wiring diagram



**DJI O3 Air Unit  
(Only for Ardupilot)**



**MicoAir MTF-01  
Optical&Lidar Sensor**



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