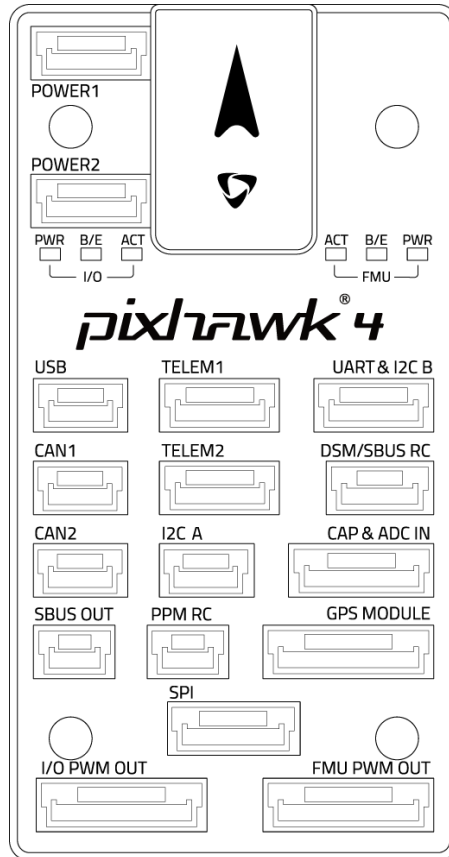


# pixhawk<sup>®</sup> 4



## Pinouts

### Power 1, Power 2 ports

Pin	Signal	Volt
1(red)	VCC	+5V
2(black)	VCC	+5V
3(black)	CURRENT	+3.3V
4(black)	VOLTAGE	+3.3V
5(black)	GND	GND
6(black)	GND	GND

### USB port

Pin	Signal	Volt
1(red)	VBUS	+5V
2(black)	DM	+3.3V
3(black)	DP	+3.3V
4(black)	GND	GND

### TELEM1, TELEM2 ports

Pin	Signal	Volt
1(red)	VCC	+5V
2(black)	TX(out)	+3.3V
3(black)	RX(in)	+3.3V
4(black)	CTS(in)	+3.3V
5(black)	RTS(out)	+3.3V
6(black)	GND	GND

### UART & I2C B port \*

Pin	Signal	Volt
1(red)	VCC	+5V
2(black)	TX(out)	+3.3V
3(black)	RX(in)	+3.3V
4(black)	SCL2	+3.3V
5(black)	SDA2	+3.3V
6(black)	GND	GND

\*A spare port for connecting sensors supporting serial communication or I2C e.g. a second GPS module can be connected here.

### CAN1, CAN2 ports

Pin	Signal	Volt
1(red)	VCC	+5V
2(black)	CANH	+3.3V
3(black)	CANL	+3.3V
4(black)	GND	GND

### DSM RC port

Pin	Signal	Volt
1(null)	VDD_5V_SBUS_RC	+5V
2(yellow)	SBUS*	+3.3V
3(null)	RSSI**	+3.3V
4(red)	VDD_3V3_SPEKTRUM	+3.3V
5(black)	GND	GND

### SBUS RC port

Pin	Signal	Volt
1(red)	VDD_5V_SBUS_RC	+5V
2(yellow)	SBUS*	+3.3V
3(null)	RSSI**	+3.3V
4(null)	VDD_3V3_SPEKTRUM	+3.3V
5(black)	GND	GND

\*Connect SBUS or DSM/Spektrum receiver's signal wire connect here.

\*\* Sends the RC signal strength info to autopilot.

### I2C A port

Pin	Signal	Volt
1(red)	VCC	+5V
2(black)	SCL4	+3.3V
3(black)	SDA4	+3.3V
4(black)	GND	GND

**CAP & ADC IN port**

Pin	Signal	Volt
1(red)	VCC	+5V
2 (black)	FMU_CAP1	+3.3V
3(black)	FMU_CAP2	+3.3V
4(black)	FMU_CAP3	+3.3V
5(black)	TIM5_SPARE_4	+3.3V
6(black)	ADC1_SPARE_1	+3.3V*
7(black)	ADC1_SPARE_2	+6.6V*
8(black)	GND	GND

\*WARNING: Sensors connected to this pin should not send a signal exceeding this voltage!

**GPS MODULE port**

Pin	Signal	Volt
1(red)	VCC	+5V
2 (black)	TX(out)	+3.3V
3(black)	RX(in)	+3.3V
4(black)	SCL1	+3.3V
5(black)	SDA1	+3.3V
6(black)	SAFETY_SWITCH	+3.3V
7(black)	SAFETY_SWITCH_LED	+3.3V
8(black)	VDD_3V3	+3.3V
9(black)	BUZZER-	0V/5V
10(black)	GND	GND

**SBUS OUT port**

Pin	Signal	Volt
1(red)		
2(yellow)	SBUS_OUT	+3.3V
3(black)	GND	GND

**PPM RC port**

Pin	Signal	Volt
1(red)	VCC	+5V
2(yellow)	PPM	+3.3V
3(black)	GND	GND

**SPI port**

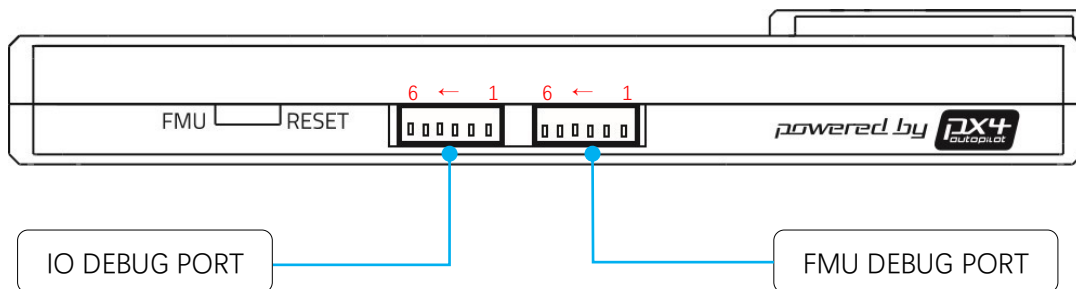
Pin	Signal	Volt
1(red)	VCC	+5V
2 (black)	SCK	+3.3V
3(black)	MISO	+3.3V
4(black)	MOSI	+3.3V
5(black)	CS1	+3.3V
6(black)	CS2	+3.3V
7(black)	GND	GND

### I/O PWM OUT port

Pin	Signal	Volt
1(red)	VDD_SERVO	
2 (black)	IO_CH1	+3.3V
3(black)	IO_CH2	+3.3V
4(black)	IO_CH3	+3.3V
5(black)	IO_CH4	+3.3V
6(black)	IO_CH5	+3.3V
7(black)	IO_CH6	+3.3V
8(black)	IO_CH7	+3.3V
9(black)	IO_CH8	+3.3V
10(black)	GND	GND

### FMU PWM OUT port

Pin	Signal	Volt
1(red)	VDD_SERVO	
2 (black)	FMU_CH1	+3.3V
3(black)	FMU_CH2	+3.3V
4(black)	FMU_CH3	+3.3V
5(black)	FMU_CH4	+3.3V
6(black)	FMU_CH5	+3.3V
7(black)	FMU_CH6	+3.3V
8(black)	FMU_CH7	+3.3V
9(black)	FMU_CH8	+3.3V
10(black)	GND	GND



### IO DEBUG port

Pin	Signal	Volt
1(red)	VT	+3.3V
2(black)	TX	+3.3V
3(black)	NC	
4(black)	SWDIO	+3.3V
5(black)	SWCLK	+3.3V
6(black)	GND	GND

### FMU DEBUG port

Pin	Signal	Volt
1(red)	VT	+3.3V
2(black)	TX	+3.3V
3(black)	RX	+3.3V
4(black)	SWDIO	+3.3V
5(black)	SWCLK	+3.3V
6(black)	GND	GND