

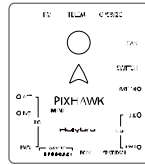
PIXHAWK MINI



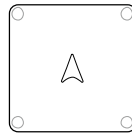
QUICK START GUIDE v1.0

IN THE BOX

Pixhawk Mini autopilot



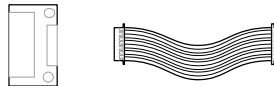
GPS module



Power Distribution Board



(A) 8 channel PWM breakout board and cable



(B) I2C splitter



(C) RC in cable



(D) 6 pin to 6 pin and 4 pin "Y" cable



(E) 6 pin cable (x2)



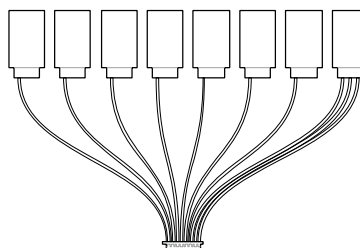
(F) 4 pin JST to DF13



(G) Safety switch



(H) 8 Channel PWM breakout cable



SPECIFICATIONS

Features:

- Built in Buzzer
- 8 PWM/servo outputs
- Double redundant power supply if powered by USB and PM
- Onboard safety switch and external safety switch
- Micro SD card for high rate logging over extended periods of time

Voltage Ratings:

- Power module output: 4.1~5.5V
- Max input voltage: 45V (10S LiPo)
- Max current sensing: 90A
- USB Power Input: 4.1~5.5V
- Servo Rail Input: 5~10V

Dimensions: 38x43x12mm

Weight: 15.8g

Interface :

- 1 x UART Serial Port
- Spektrum DSM/DSM2/DSM-X® Satellite Compatible
- Futaba S BUS® Compatible
- PPM Sum Signal Input
- I2C,CAN,ADC,Internal Micro USB Port

Sensors

- Accel/Gyro/Mag: MPU9250
- Accel/Gyro: ICM20608
- Barometer: MS5611

GPS Module :

- GNSS receiver: ublox Neo-M8N; compass QMC5883
- Weight : 22.4g
- Dimensions: 37x37x12mm

GETTING STARTED

With the help of PX4 firmware, Pixhawk mini turns any RC plane, copter, or rover into a full-featured personal drone. Once you have a fully assembled vehicle, follow this guide to install Pixhawk mini.

MOUNT

Use the provided foam pads to mount Pixhawk mini as close as possible to your vehicle's center of gravity.

Make sure to orient the board with the arrow pointing forward.

VEHICLE FRONT



CONNECT

CONNECT RADIO CONTROL

For SBUS/PPM Receivers



For Spektrum DSM Receivers



CONNECT MOTOR OUTPUT



INSTALL QgroundControl

PX4 firmware is the brains of your autopilot and must be installed before using Pixhawk mini.

To load firmware onto the Pixhawk mini, install QGroundControl on your computer.

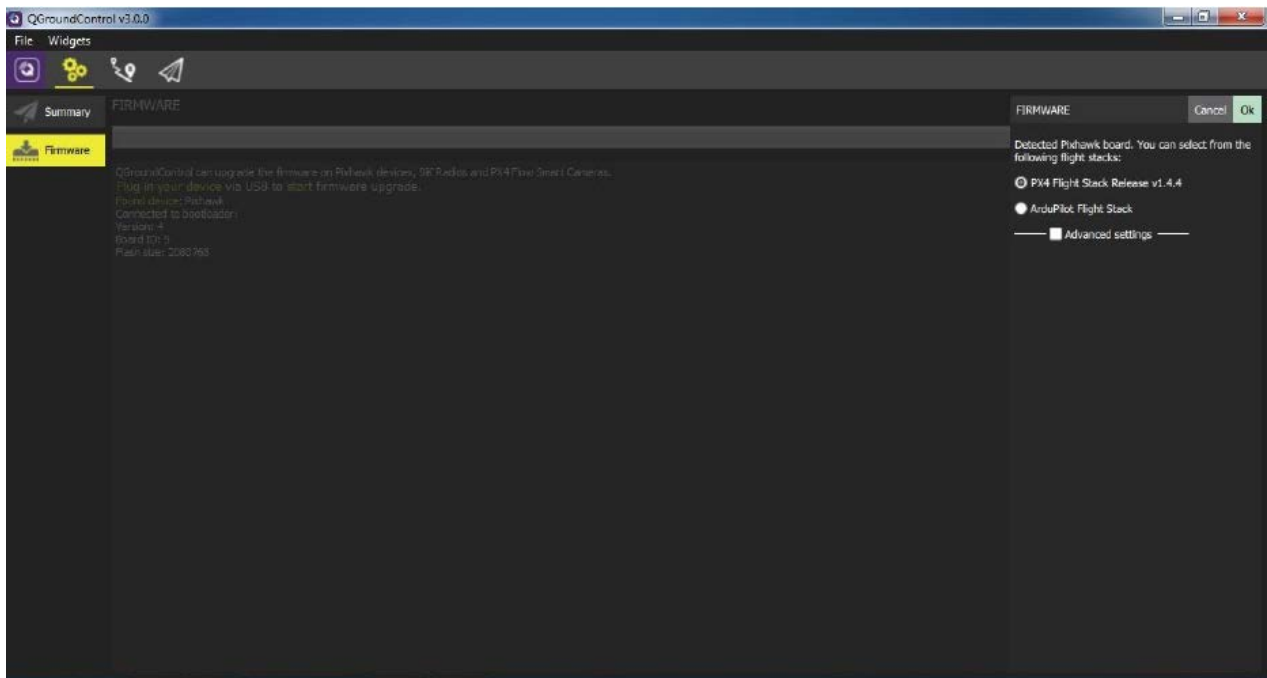
QGroundControl is cross platform and available on Windows, OS X, and Linux.

Application available for free download from <http://qgroundcontrol.com/>

The screenshot shows the QGroundControl website interface. At the top, there is a purple navigation bar with the logo and links for HOME, GETTING STARTED, and DOWNLOADS. Below this is a hero section with a background image of a mountain range under a cloudy sky. The text reads "TAKING A UAV CONTROL STATION TO THE NEXT LEVEL" with a "KNOW THE TOOL" button. A second navigation bar is visible below the hero section. The main content area is titled "DOWNLOADS" and contains the instruction: "Choose the desired platform to download the latest version of QGroundControl." Below this instruction are five columns, each representing a platform: Windows (with a grid icon), Mac OS X (with an 'X' icon), Linux (with a smiley face icon), Android (with a robot icon), and iOS (with an Apple icon). Each column lists the minimum OS version and includes a "GET IT NOW" button.

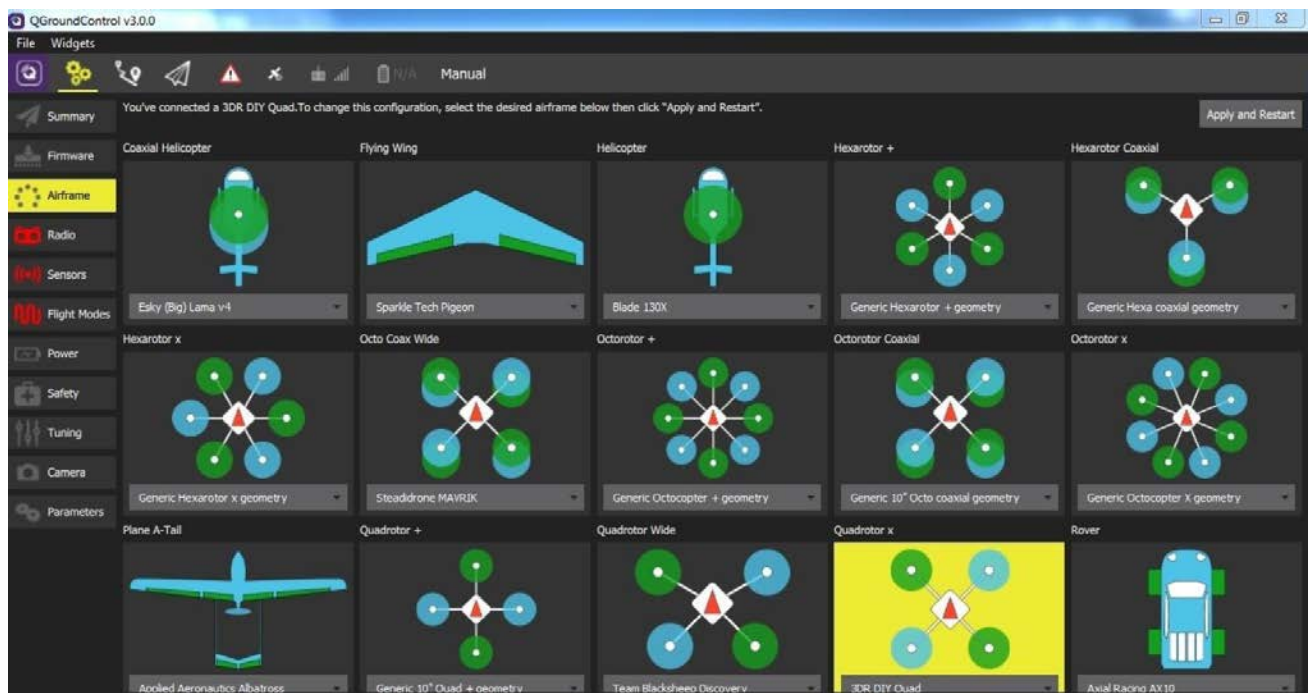
Platform	Minimum OS Version
Windows	Windows Vista or above
Mac OS X	Mac OS X 10.8 or above
Linux	Ubuntu 14.04 LTS or above
Android	Android 5.1 or above
iOS	iOS 8.0 or above (Beta)

LOAD FIRMWARE



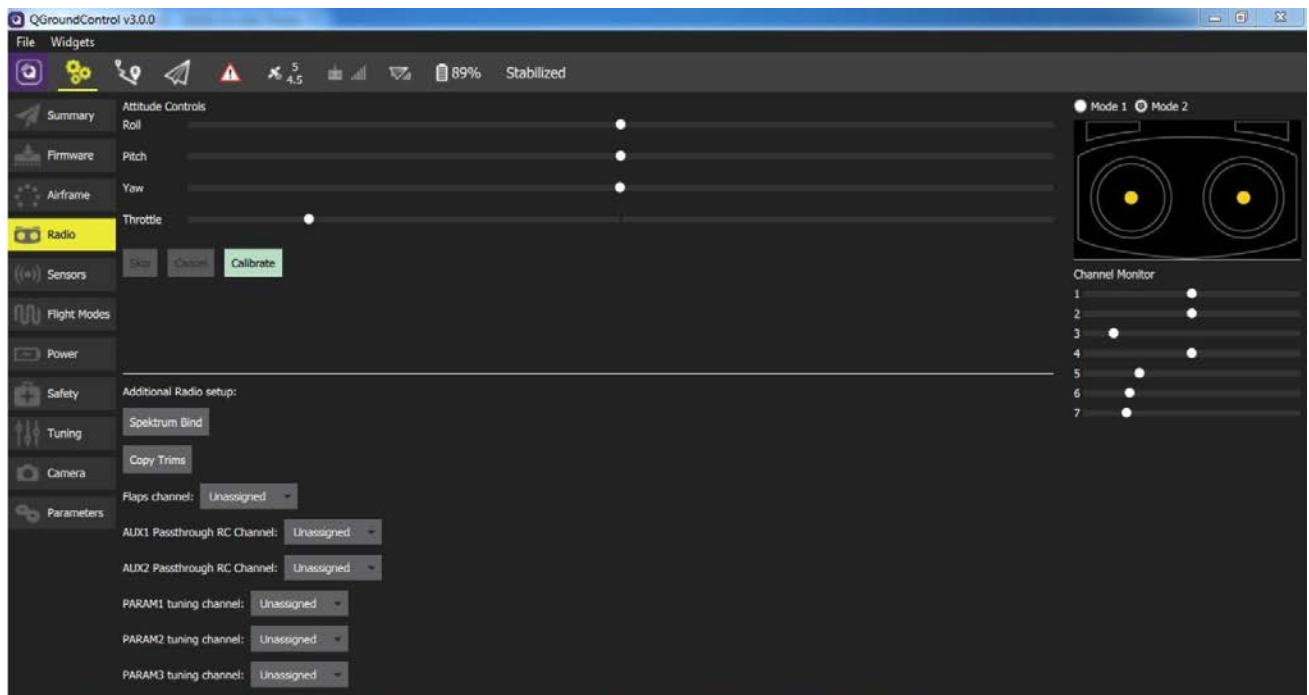
AIRFRAME

Select the specific airframe from the dropdown within the group which best matches your vehicle.

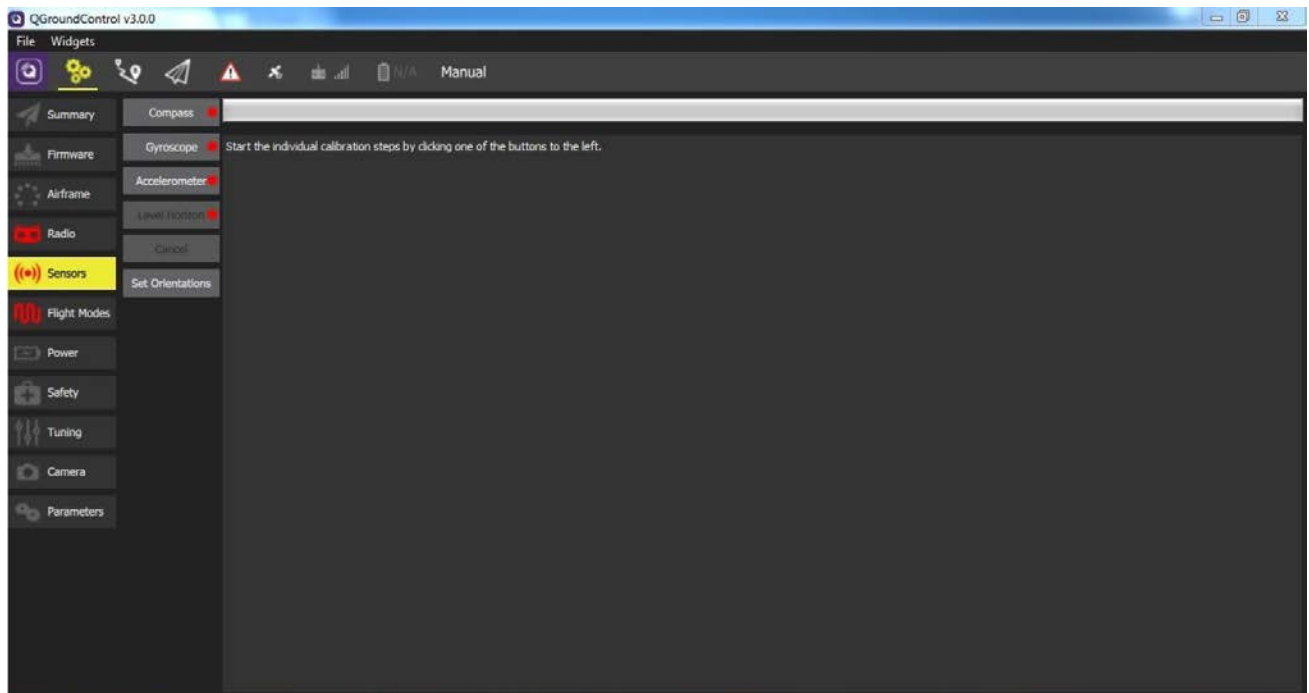


RADIO

Radio Setup is used to map your main control sticks to channels and set min/max values for these.

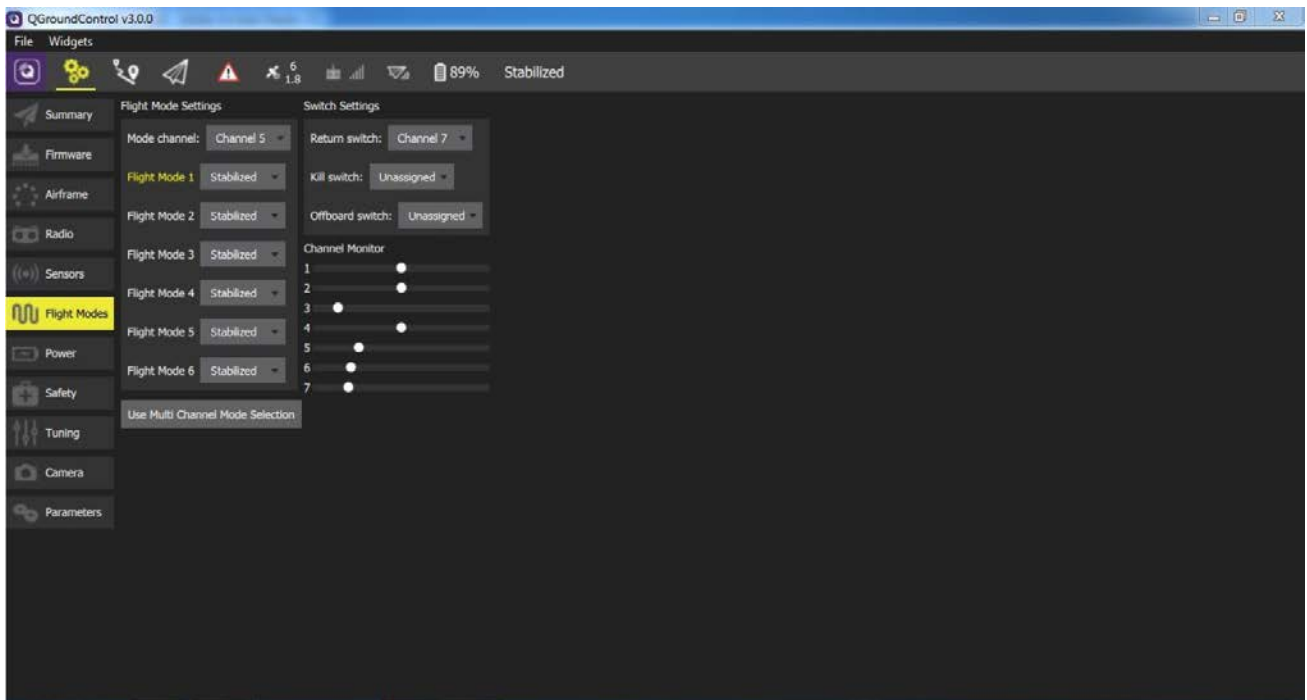


SENSORS



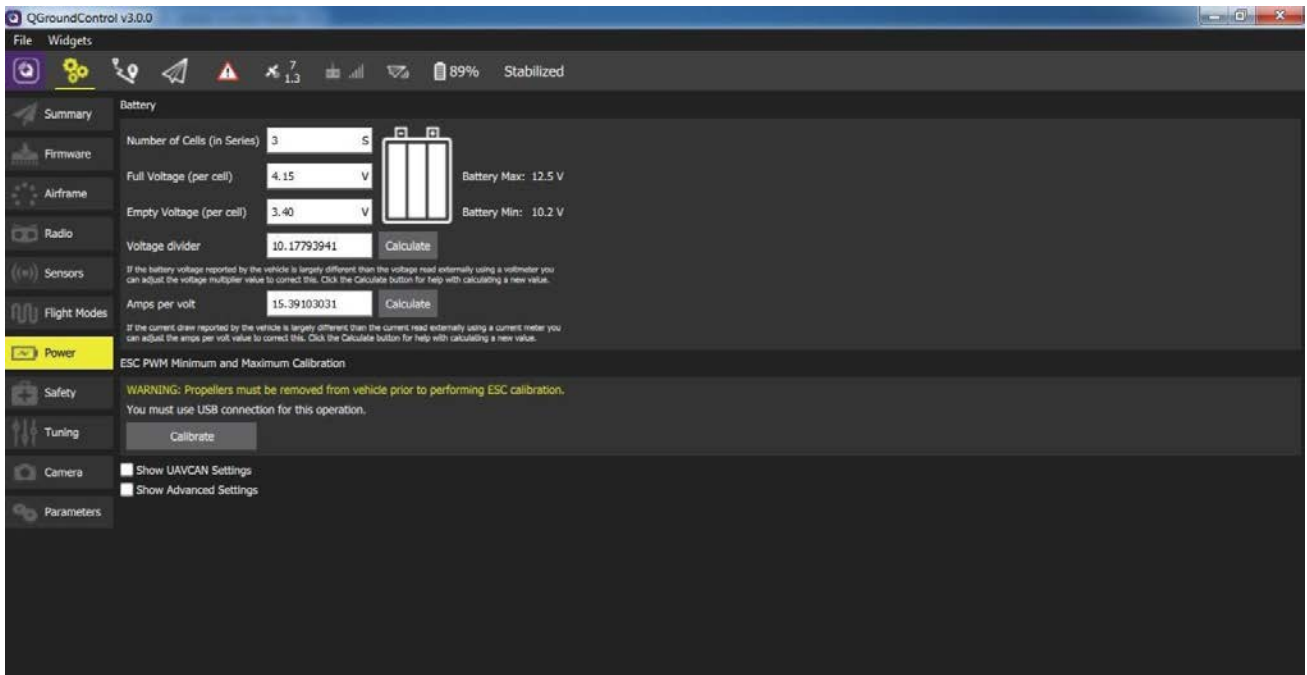
FLIGHT MODES

Here you can set up your designated Flight Modes.



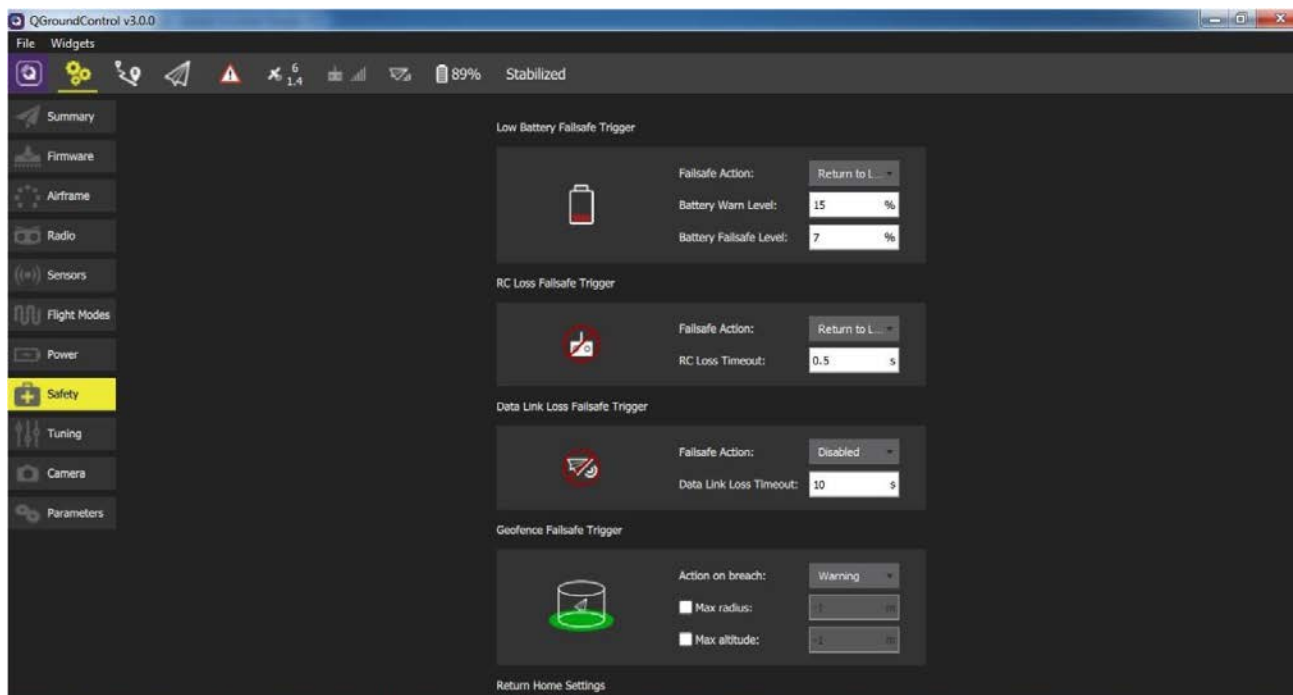
POWER

Here you can set the specifics of your battery and the power sensor that will be used.



SAFETY

The Safety Setup page allows you to configure various failsafe settings as well as return home details.



OPTIONAL ACCESSORIES

Digital Airspeed sensor + Pitot tube (MS525DO)

Standard Telemetry (433MHz and 915MHz)

PIN OUTS

POWER INPUT PORT		
1(red)	SCL	+3.3V
2(blk)	SDA	+3.3V
3(blk)	VCC	+5V
4(blk)	TX3	+3.3V
5(blk)	RX3	+3.3V
6(blk)	GND	GND

GPS & I2C PORT		
1(red)	SCL	+3.3V
2(blk)	SDA	+3.3V
3(blk)	VCC	+5V
4(blk)	TX3	+3.3V
5(blk)	RX3	+3.3V
6(blk)	GND	GND

CHANNEL PIN OUTS			
PIN	Multirotos	4 Channel Planes	Rovers
Pin 1	motor 1	Aileron	-
Pin 2	motor 2	Elevator	-
Pin 3	motor 3	Throttle	Throttle
Pin 4	motor 4	Rudder	Steering
Pin 5	motor 5	-	-
Pin 6	motor 6	-	-
Pin 7	motor 7	-	-
Pin 8	motor 8	-	-

CAN PORT		
1(red)	VCC	+5V
2(blk)	CAN-H	+3.3V
3(blk)	CAN-L	+3.3V
4(blk)	GND	GND

TELEM PORT		
1(red)	VCC	+5V
2(blk)	TX1(OUT)	+3.3V
3(blk)	RX1(IN)	+3.3V
4(blk)	GND	GND

SAFETY SWITCH PORT		
1(red)	VCC	+5V
2(blk)	IO_LED_SAFETY	GND
3(blk)	SAFETY	GND

RC IN	
1(yellow)	SBUS/PPM
2(red)	+5v
3(blk)	GND

For planes with configurations other than 4 channels, see px4.io for more information.

ADDITIONAL INFORMATION

Be sure to visit <http://px4.io/> for further information including tutorials, configurations, and community support.