pixhawk® 4

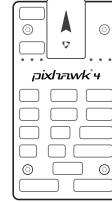## The most advanced development kit for the PX4 autopilot
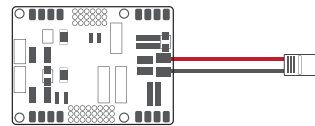

Holybro

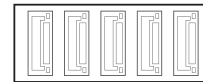# IN THE BOX

Pixhawk 4 autopilot

GPS module
with safety switch and LED

Power board

I2C splitter

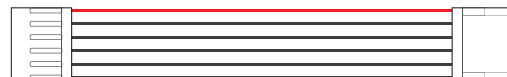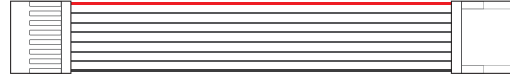6 to 6 pin cable (power) x 3

4 to 4 pin cable (CAN) x 2

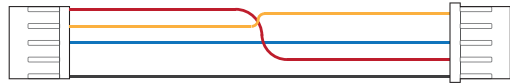6 to 4 pin cable (Data)

10 to 10 pin cable (PWM) x 2

8 to 8 pin cable (AUX)

PPM/SBUS out cable

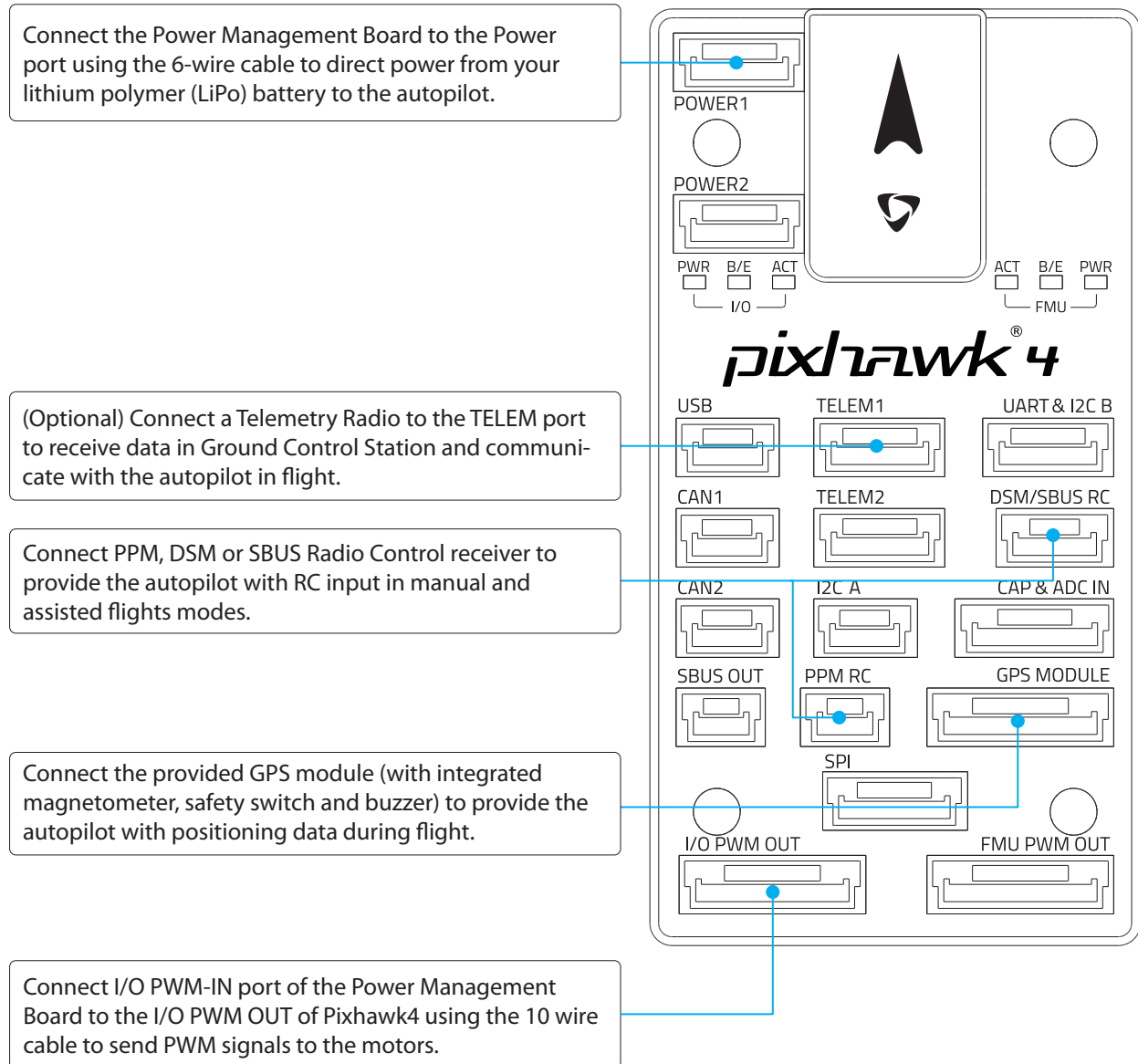XSR receiver cable

DSMX receiver cable

SBUS receiver cable

USB Cable

MOUNT

Use the provided foam pads to mount Pixhawk 4 as close as possible to your vehicle's center of gravity. Make sure to orient the board with the arrow pointing forward.

CONNECT

Connect the Power Management Board to the Power port using the 6-wire cable to direct power from your lithium polymer (LiPo) battery to the autopilot.

POWER1

POWER2

PWR B/E ACT   ACT B/E PWR
└─── I/O ───┘   └─── FMU ───┘

pixhawk ® 4

(Optional) Connect a Telemetry Radio to the TELEM port to receive data in Ground Control Station and communicate with the autopilot in flight.

| USB | TELEM1 | UART & I2C B |
| CAN1 | TELEM2 | DSM/SBUS RC |

Connect PPM, DSM or SBUS Radio Control receiver to provide the autopilot with RC input in manual and assisted flights modes.

| CAN2 | I2C A | CAP & ADC IN |
| SBUS OUT | PPM RC | GPS MODULE |

SPI

Connect the provided GPS module (with integrated magnetometer, safety switch and buzzer) to provide the autopilot with positioning data during flight.

I/O PWM OUT   FMU PWM OUT

Connect I/O PWM-IN port of the Power Management Board to the I/O PWM OUT of Pixhawk4 using the 10 wire cable to send PWM signals to the motors.

Connect the PMB to the POWER port using the 6-wire cable to direct power from your lithium polymer (LiPo) battery to the autopilot.
(Optional) Connect a Telemetry Radio to the TELEM port to receive data in Ground Control Station and communicate with the autopilot in flight.
Connect I/O PWM-IN port of the PMB to the I/O PWM OUT of Pixhawk 4 using the 10 wire cable to send PWM signals to the motors.
Connect PPM, DSM or SBUS Radio Control receiver to provide the autopilot with RC inputin manual and assisted flights modes.
Connect the GPS module to provide the autopilot with positioning data during flight.

For more details on how to connect Power Management Board(PMB) with Pixhawk 4 and the motors, refer to PX4 User Guide:
https://docs.px4.io/en/assembly/quick_start_pixhawk4.html

SET UP

The PX4 firmware is the brains of your autopilot operation and Version 1.7 is already loaded on your Pixhawk 4.

To configure your vehicle as well as do mission planning and flight monitoring, you can use the free QGroundControl application (Windows, Mac, Linux), which you can download from http://qgroundcontrol.com/

Once you have installed and successfully run QGroundControl, plug in Pixhawk 4 with the supplied USB cable, it should be automatically recognized. Click on   and follow the on-screen instructions to finish the setup steps.

As part of a first time setup, you'll need to configure some of the required hardware components, such as:
● Frame type configuration
● Compass calibration
● Radio control calibration
● Accelerometer calibration
● RC transmitter mode setup
● ESC calibration

In addition to mandatory calibrations, you may also choose to configure optional hardware including battery monitor, sonar, airspeed sensor, optical flow, OSD, camera gimbal, antenna tracker etc.

ADDITIONAL INFORMATION

Refer to pixhawk.org for detailed pin-outs of Pixhawk 4 connectors.

Visit PX4 user guide at px4.io for detailed instructions including tutorials on how to change firmware and do advanced configurations with QGroundControl.

Join PX4 Slack (http://slack.px4.io/) to receive support from the community and the PX4 team.