Pixhawk 4 Flight Controller

ROB-14841

The Pixhawk 4 is an advanced development kit for the PX4 autopilot and is the latest update to the family of Pixhawk flight controllers. The flight controller has been designed and developed in collaboration with Holybro and Auterion, optimized to run PX4. It comes preinstalled with the latest PX4 firmware and features advanced processor technology from STMicroelectronics, sensor technology from Bosch, InvenSense, and a NuttX real-time operating system, delivering incredible performance, flexibility, and reliability for controlling any autonomous vehicle.

The Pixhawk 4's microcontroller has a 2MB flash memory and 512KB RAM. With the increased power and RAM resources, developers can be more productive and efficient with their development work. More complex algorithms and models can be implemented on the autopilot. The high-performance, low-noise IMUs on board are designed for stabilization applications. Data-ready signals from all sensors are routed to separate interrupt and timer capture pins on the autopilot, permitting precise time-stamping of sensor data. Newly designed vibration isolations enables more accurate readings, allowing vehicles to reach better overall flight performances.

The two external SPI buses and six associated chip select lines allow to add additional sensors and SPI-interfaced payload. There are total of four I²C buses, two dedicated for external use and two grouped with serial ports for GPS/Compass modules.

INCLUDES

- 1x Pixhawk 4
- 1x Pixhawk 4 GPS Module
- 1x Pixhawk 4 Power Management Board
- 1x I²C splitter Board
- 3x 6 to 6 pin cable (Power)
- 2x 4 to 4 pin cable (CAN)
- 1x 6 to 4 pin cable (Data)
- 2x 10 to 10 pin cable (PWM)
- 1x 8 to 8 pin cable (AUX)
- 1x PPM/SBUS out cable
- 1x XSR receiver cable
- 1x DSMX receiver cable
- 1x SBUS receiver cable
- 1x USB cable
- 1x 'X' type folding pedestal mount
- 2x 70mm & 140mm carbon rod stand off
- 1x 6x3 2.54mm pitch Horizontal Pin
- 1x 8x3 2.54mm pitch Horizontal Pin
- 1x Foam Set
- 1x Pixhawk 4 Quick Start Guide
- 1x GPS Quick Start Guide
- 1x Power Management Board Quick Start Guide

FEATURES

- Main FMU Processor: STM32F76 (32 bit ARM® Cortex® M7, 216 MHz Processor running NuttX RTOS, more computing power and 2X the RAM than previous versions)
- Abundant connectivity options for additional peripherals (UART, I2C, CAN)
- Redundant power supply inputs and automatic failover
- External safety button for easy motor activation
- New sensors with higher temperature stability
- Multicolor LED indicator
- Integrated vibrations isolation
- High-power, multi-tone piezo audio indicator
- microSD card for long-time high-rate logging
- 16 PWM outputs
- Increased ease-of-use: pre-installed with most recent PX4 (v1.8)