SparkFun OpenLog Data Collector with Machinechat – Environmental Monitoring

KIT-20683

The Environmental Monitoring version of the SparkFun OpenLog Data Collector Kit with Machinechat is an easy way to organize and display your data from an included BME280 Qwiic Atmospheric Sensor with the OpenLog Artemis and JEDI One. The SparkFun OpenLog Artemis (without IMU) is an open source data logger that comes preprogrammed to automatically log GPS / GNSS, serial data, and various pressure, humidity, and distance data as well as the ability to expand out to any number of our Qwiic sensors.

Machinechat's JEDI One provides an easy-to-use, customizable, one stop dashboard solution for IoT data collection, transformation, visualization, and reporting. Built-in HTTP and TCP servers allow you to start collecting data from sensors and devices in minutes, and custom plug-ins allow you to collect data from virtually any sensor or device. In addition, a fully integrated and self-contained MQTT broker makes it easy to integrate any MQTT based device or sensor. No need to set up a separate broker or use Azure or AWS for MQTT. Just configure and go.

The SparkFun BME280 Atmospheric Sensor Breakout is an easy way to measure barometric pressure, humidity, and temperature readings, all without taking up too much space. Basically, you can find out anything you need to know about atmospheric conditions from this tiny breakout. The BME280 Breakout has been designed to be used in indoor/outdoor navigation, weather forecasting, home automation, and even personal health and wellness monitoring.

Simply connect the BME280 Breakout of another compatible Qwiic-enabled device, power up the OpenLog Artemis, and all incoming serial data is automatically recorded to a log file with baud rates up to 500000bps, supported! The OLA also has four ADC channels available on the edge of the board. Voltages up to 2V can be logged with 14-bit precision up to 1900Hz for one channel and 1000Hz logging all four channels. Additionally, based on feedback from users we've added an on-board RTC so that all data can be time stamped.

The OpenLog Artemis is highly configurable over an easy-to-use serial interface. Simply plug in a USB-C cable and open a terminal at 115200bps. The logging output is automatically streamed to both the terminal and the microSD. Pressing any key will open the configuration menu.

Included in this kit, you will find an OpenLog Artemis (without IMU), a BME280 Qwiic Atmospheric Sensor Breakout, a unique JEDI One license, and connector cables. Additional sensors must be purchased separately. If you are interested in picking up a different version of this kit, be sure to check out the Base Kit or Air Quality Monitoring Kit, instead!

Note: The version of OpenLog Artemis included in this kit has the ICM-20948 IMU sensor removed. This IC is becoming increasingly difficult to locate. This version still supports auto-detection and logging of over a dozen sensors and GNSS receivers.

Kit Includes

- 1x SparkFun OpenLog Artemis (without IMU)
- 1x SparkFun Atmospheric Sensor Breakout - BME280 (Qwiic)
- 1x Machinechat Software License Card - JEDI One
- 1x SparkFun Qwiic Cable Kit
- 1x Reversible USB A to C Cable - 0.8m

https://www.sparkfun.com/products/20683 12-1-2022