bendlabs

One Axis Development Kit

Getting Started Guide

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Precautions

One axis angular displacement sensor is NOT 5 V tolerant. Requires 1.62 - 3.6 V regulated supply for proper operation.
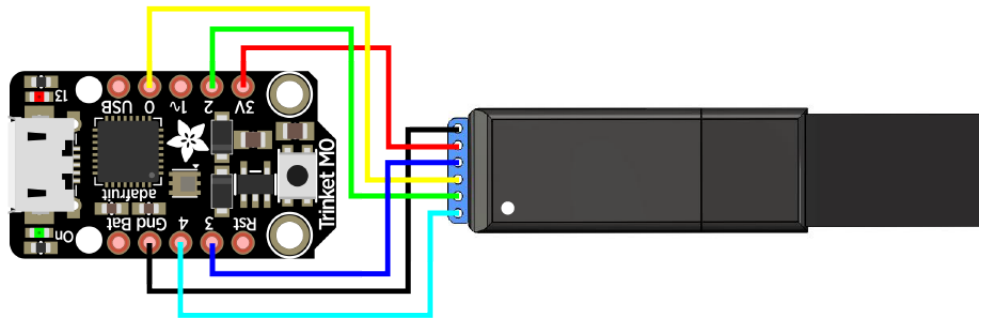
Don't pull the sensor by the wires

Don't strain the sensor more than 75%

Active region of the sensor starts 0.5" from the tip of the sensor

Device Setup

1: Connect the one axis sensor to the included trinket M0 as shown below:


2: Set up Trinket M0 Arduino IDE

- o Follow Adafruit's guide found at https://learn.adafruit.com/adafruit-trinket-m0-circuitpython-arduino/arduino-ide-setup to get the Trinket M0 up and running in the Arduino IDE.

3: Integrate Sensor and Trinket

- o Download example sketches and ads Arduino driver at (github link)

- o Copy *one_axis_ads_demo* sketch into your Arduino folder

- o Copy folder *ads_driver* into Arduino/Libraries folder

- o Connect the Trinket M0 to a USB port

- o Select Trinket M0 from the Arduino board manager and the associated COM port

- o Flash *one_axis_ads_demo* sketch onto trinket M0

Expected Output

1: Click on tools and then Serial Plotter in the Arduino IDE or CTRL+SHIFT+L to verify that angular data coming from the One Axis sensor is correct. (Note that touching the sensor while coupled to AC power can cause 60 Hz line noise).
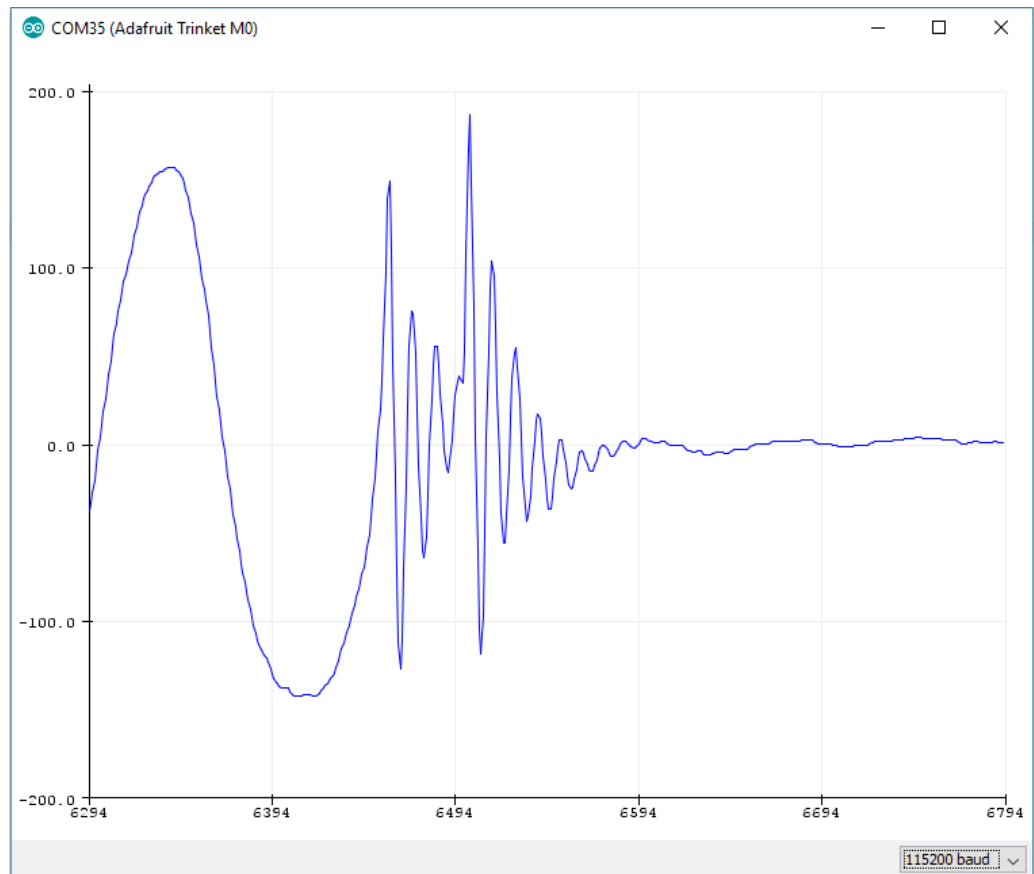
2: Click on tools and then Serial Monitor in the Arduino IDE or CTRL+SHIFT+M to interface with the One Axis Sensor through the serial port. A list of serial commands can be found in the parse_com_port function in the one_axis_demo sketch.

Additional References

Pin Diagram: