

bendlabs

Two Axis Development Kit

Getting Started Guide

TWO AXIS DEVELOPMENT KIT

Getting Started Guide

© Bend Labs
1649 W 1700S • Suite 100
Salt Lake City, UT 84104
www.bendlabs.com

Table of Contents

Precautions	1
Device Setup	2
Expected Output.....	3
Additional References	4

Precautions

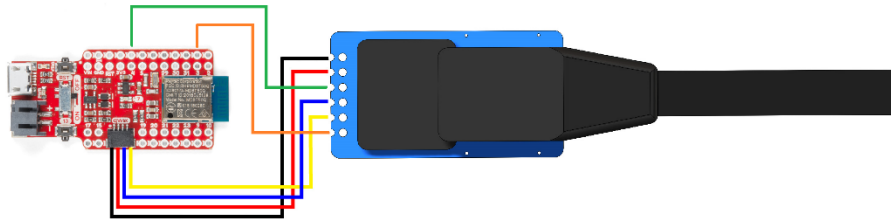
Two Axis angular displacement sensor is NOT 5 V tolerant. Requires 1.62 - 3.6 V regulated supply for proper operation.

Don't pull the sensor by the wires

Don't strain the sensor more than 15%

Device Setup

1: Connect the Two Axis sensor to the SparkFun Pro nRF52840 Mini via Qwiic Cable Breadboard Jumper and wires as shown below:



2: Set up SparkFun Pro nRF52840 Mini in the Arduino IDE

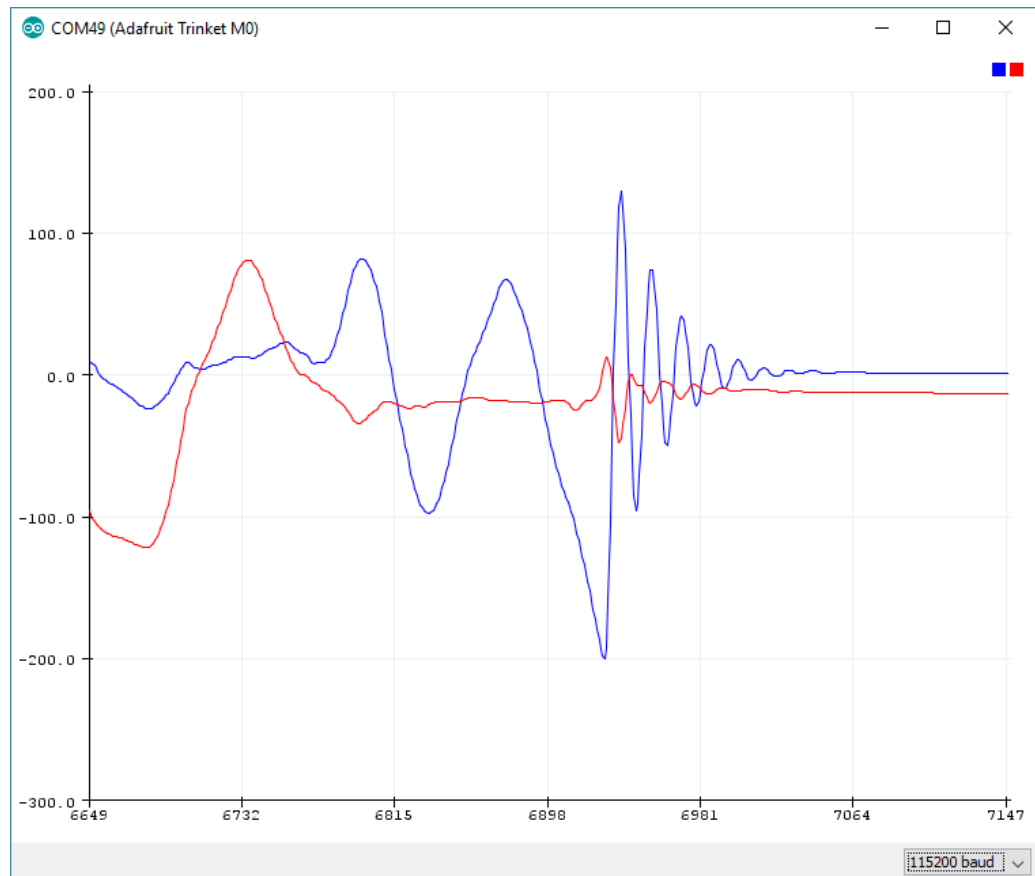
- Follow Sparkfun's guide found at <https://learn.sparkfun.com/tutorials/nrf52840-development-with-arduino-and-circuitpython> to get the nRF52840 Pro Mini up and running in the Arduino IDE.

3: Integrate Sensor and Sparkfun Pro nRF52840 Mini

- Download example sketches and ads_two_axis Arduino driver at ([github link](#))
- Copy *two_axis_ads_demo* sketch into your Arduino folder
- Copy folder *ads_two_axis_driver* into Arduino/Libraries folder
- Connect the nRF52840 Pro Mini to a USB port and reset the Pro Mini into bootloader mode
- Select Sparkfun Pro nRF52840 Mini from the Arduino board manager and the associated COM port
- Flash *two_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 Two 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 Two Axis Sensor through the serial port. A list of serial commands can be found in the `parse_serial_port` function in the `two_axis_demo` sketch.

Additional References

Pin Diagram:

