**Exercise 1: Linear fit**

The data set “calibration.txt” shows the *reported* position of a rotational sensor (in units of 1/1024 of a rotation) after N revolutions. If the rotational sensor is properly calibrated, this should be a horizontal line at 0, but it’s not. To test this, you will first need to open the file using the python’s loadtxt command in numpy to read in the numbers from the file. After that, performing the fit should be very similar to what

you’ve done before.

* By how much per revolution is the sensor miscalibrated? Plot a graph of the data, with a linear curve fit, to answer. Be sure to include errorbars on the graph, and report the uncertainty in your fit parameters.