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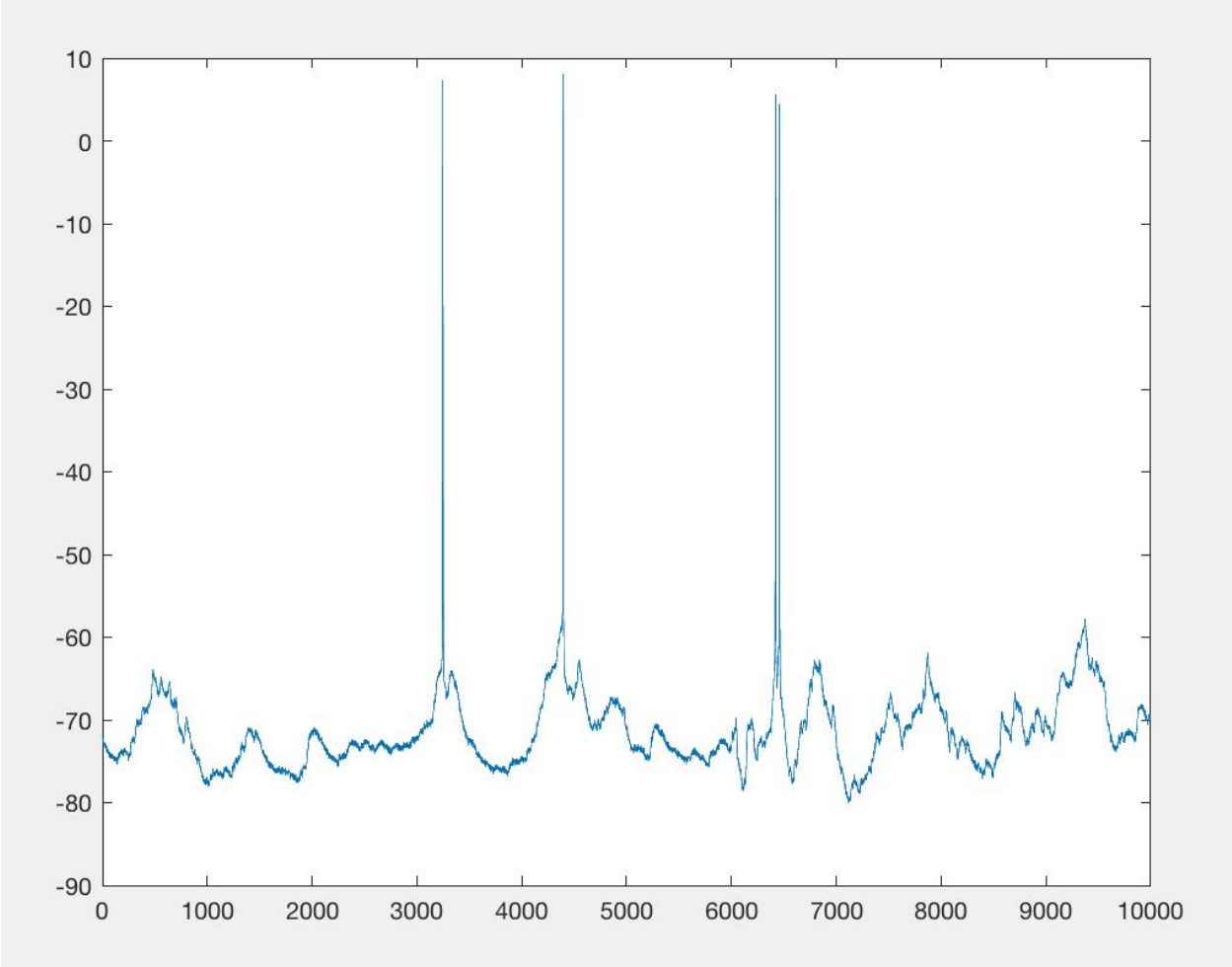
Problem 2:

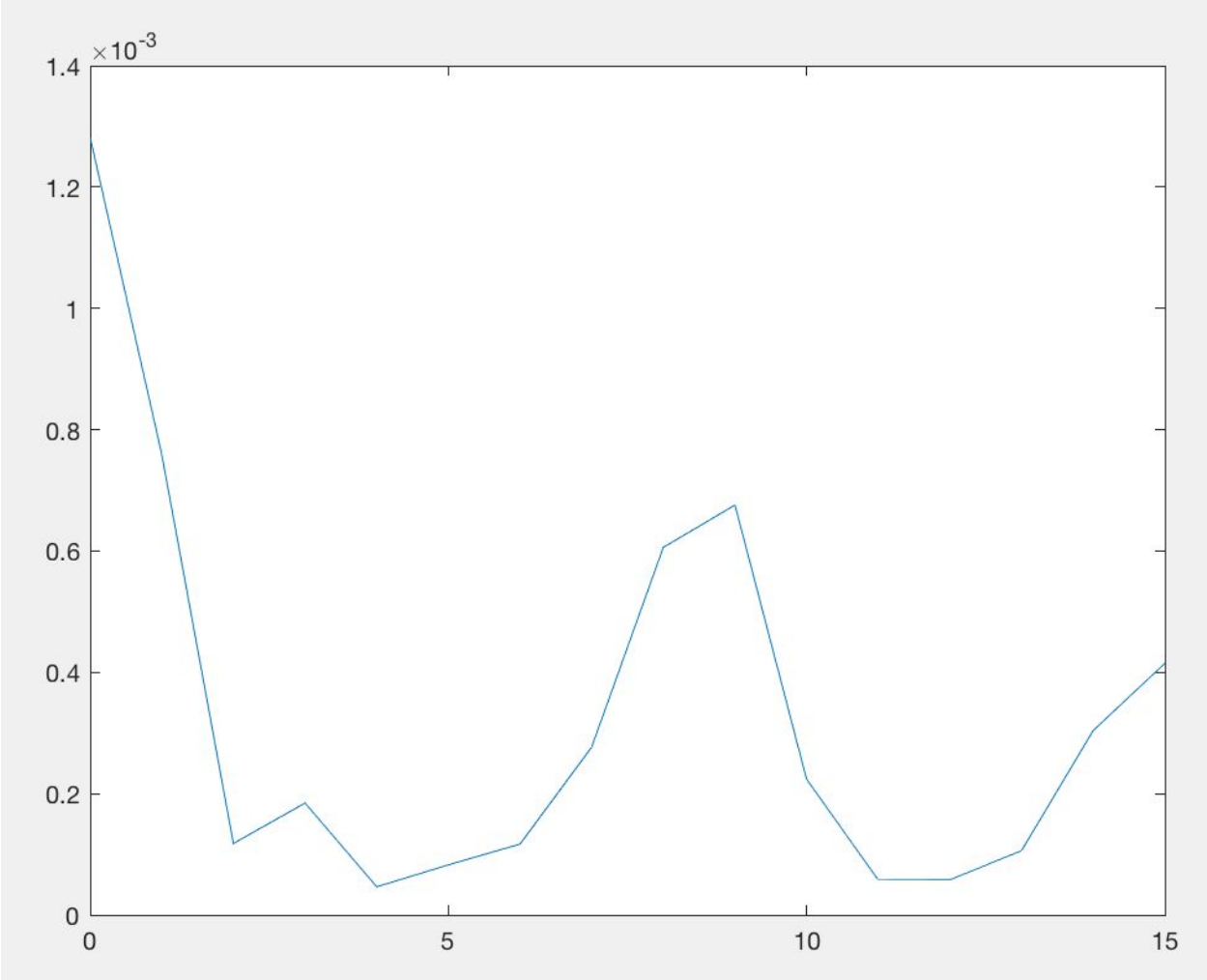
a) As you can see here, the X axis is the time ticks (10 kHz, so 10,000 is the first second) and the Y axis is the voltage, displaying the spikes



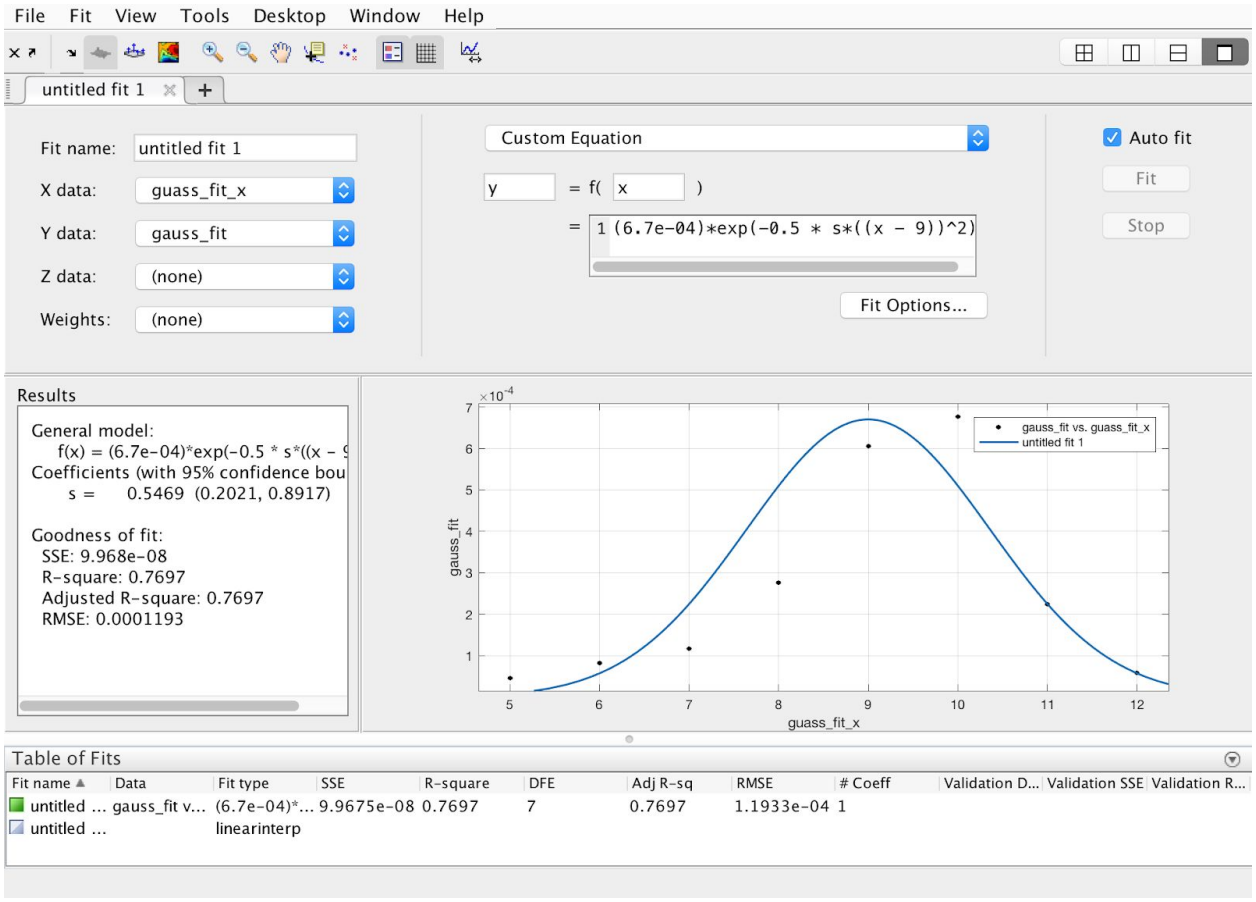
b) I created that list and it is in my matlab code.

c) As you can see here, the X axis is the orientation in units of 22.5 degrees and the Y axis is the firing rate. You see 3 spikes here but they are really the same thing. The spike at 0 and 15 represent 0 and 360 degrees in rotation. And the spike at the center is for 180 degrees in rotation, so they are really all the same thing. It means that this neuron is meant to spike most

frequently on horizontal bars.



d) Here is the fit



e) It's showing us the neurons that are firing as a result of seeing these dark and light small lines, and you can see that the neurons being mapped to those shapes are approximately in the same clusters.