This week we continued to focus more on the design of our circuit. The main thing that I worked on was learning how to run a microcontroller. Dave Price recommended that we use a program called HI-TIDE, which is a compiler made by HI-TECH Software to support Microchip. This program will help to design the C-code necessary to program the microcontroller (Fig. 1).

Figure 1: A screen shot of the HI-TIDE program designed to program microcontrollers in C.
I ran several of the tutorials for HI-TIDE and found the tool known as the C-Wiz editor. This tool allows the user to input configurations for the microcontroller and then outputs the correct code that will control the microcontroller in the desired way (Fig. 2).

![C-Wiz editor](image)

*Figure 2: The C-Wiz editor that allows the user to input configurations for the microcontroller.*

The next step will be to find the microcontroller that we want to use and input the correct settings into the HI-TIDE program and the C-Wiz editor to obtain the desired results. Then, we will use the PICSTART Plus (Fig. 3) to plug the microcontroller into the computer and test if the results we obtain are in fact what we want them to be. Dave Price told me that there are
microcontrollers that I can use in the lab, but I could not find them this week, when I went to try and test my code.

Figure 3: PICSTART Plus allows the user to plug a microcontroller into the computer and test the code written to control it.

There were also a few other things that I worked on this week. I helped Sarah and Matt to find an evaluation board that will work for our purposes and they found one that will produce exactly the output that we need. Also, we went down to the animal facility to pick up our access cards and will be meeting with Jason Farnsworth next week to get training in animal handling.