Work Completed:
This week had little tangible results. After discovering the complications regarding the compatibility of the project’s USB and DAQ components, we had to finalize our decisions on what to order.

During the week, I tried to organize the functions of our device into a LabVIEW style flow chart. This way, we not only had an idea of what the functions were, but how they were going to be accomplished using LabVIEW. The chart showed how the main program would utilize sub-VIs. After coming up with a rough draft, Eva and I went over the process together and ended up simplifying the amount of possible situations we will initially program for so that we can add code if we have enough time. The sub-VIs included a pill compartment motor control VI, a store info VI, a dispense VI, a user input sequence VI, and a cut pills VI. Deciding to limit function to pills whose information concerning compartment number, dosage, and dosage time greatly simplified the program.

I then went into LabVIEW and searched for possible function VI’s that would help build our program. Some of the most complicated functions involve timing, retrieval of correct data from excel file, and the user interface.

Future Work:
Over the next week, Eva and I will begin to implement our ideas in LabVIEW. If our new parts come in, we will be able to test the compatibility of these components and run them together to see how they will input data into LabVIEW. This week, I will also be doing a web event with National Instruments, as well as a 3 hour workshop with NI in Windsor.

Project Review:
At this point, we have spent a lot of money. Also, for our manufacturing capabilities, the cutter has been made of wood. It seems as though more and more of our project is being designed with the understanding that it is just a prototype and wouldn’t be manufactured at a large scale in the same way. For example, the use of a mini-computer isn’t very practical someone who simply wants their pills cut and dispensed to them at home. Hopefully, once we get our new parts in, we will see a turn for the more productive.

Hours Worked: 7