Work Completed:

After meeting with Mike Holbert, we got a better understanding of exactly how he wants the program to look and operate. With this new understanding, I could then go into the program and make various changes to make it a more user friendly and personalized interface.

First of all, the motor control was a major source of discussion. We talked about exactly what he wants to be able to input, and how these inputs should work. From this, I was able to change the program so that Mike can now enter a distance and speed, and the program will convert this to “indexes” and “indices per second”, and send these values to the motor. In doing these calculations, I had to take into account the resolution settings, the circumference of the motor, and the number of steps per revolution.

In writing this program, I can up with a problem with how we are planning on having the machine run and take measurements. I realized that we will have to have our motor move in increments (set by the user as “measure every Xmm), instead of performing the entire motion in one shot. This change would insure that the measurements are taken at the exact distance values, and not just estimated values. BY incorporating this change into the program, we are insuring that we are utilizing the motors we purchased to the fullest extent.

In the meeting, we also discussed how data will be displayed and saved to be analyzed. We decided that we will have a real time display of the measured data, while
at the same time the user will have the ability to export data into an excel workbook after choosing the “set measure increment”.

**Future Work:**

There is much work to be done on the programming side of the project. First of all, I need to finish the change in functionality of the moving of the motor to incorporate more accurate measurements. Also, I need to incorporate the ways in which the users want the data to be displayed and analyzed.

**Project Review:**

We are definitely making steps in the right direction. It is however hard to be sure that all of the steps we are making are beneficial since we do not yet have our components to test them on. It is essential that we get these components asap so that we can start combining all of the pieces of the project, and so that we can test the work that we have done.

**Hours Worked:** 9