Work Completed

The past week I read the operating manual and did research for the CuTouch 172. The CuTouch 1721 is an integrated controller with liquid crystal display (LCD) careen, touch input processor that will display volumetric reading of the bladder and also allow the patient or caregiver to input commands. The CuTouch is unique in that it allows or supports communication to intelligent devices such as sensors etc. It also supports Mobus protocol to interface with other PLCs, HMIs and PCs. The Mobus is a programmable controller that can communicate with each other. The CuTouch units can be programmed in Basic or Relay Ladder Logic. Our team has decided to program the CuTouch screen in Basic language. This means that we will be able to create custom graphic and process touch input.

We were able to come up with a design that will assist us with the status indication of the bladder. The known distance between the urethras stretches from 2.5 cm to 5 cm. Knowing the stretch, we were able to order a stretch sensor that was 4 inches in diameter (STRX-04).
Future Work

Signal Amplification

To increase the signal output, the gain must also be increased. However, before the gain can be increased, must ensure that the increased range will be required by the microprocessor. This increase in the gain will be accomplished by passing the pressure reading from the bladder though a simple amplifier which will then create the necessary gain to provide a voltage of approximately 5V signal to the microprocessor.

Operational amplifiers will be used to ensure that the analog to digital conversion is bandwidth limiting and will also ensure the highest allowable frequency in the analog signal before sampling with an analog to digital conversion.

Micro pump

Test the setup with the micro pump to ensure its efficiency and to ensure that the tubing purchased is the correct size in diameter to fit around the micro pump for our design set up.

Collaborate with group members with the programming of our remote unit and the microprocessor.

Project Review

According to our timeline, we are gradually making progress. We have received the software package that was missing from our parts order. Due to the change of our design from a pressure sensor to a stretch sensor. We are still waiting for the stretch sensor that was ordered along with a urine bag.
Hours Worked

Last week I worked 13 hours doing research on our project, mainly reading the CuTouch Manual and the difference between the languages that can be used to program the CuTouch. Also, did some research about the micro pump M100s. I also started the presentation for our weekly meeting.