Work Completed

Over the past week I have done research on about what type of materials should the implant is made of and the sterilization techniques of these materials. I have also continued looking at various ways in which we can power the implant for a long period of time (3-5 years). Powering an implantable device is extremely important and special precautions have to be taken into consideration for the patient’s safety and privacy. There have been some changes to our optimal design for our final report. In the table of contents, the pressure transducer will be replaced by the stretch sensor, and we will be using one micro-pump instead of two. Using one micro pump will reduce the amount of power needed for our design. Material that would be suitable or biocompatible for the stretch sensor would be a non biodegradeable shape memory polymer. Since our original RF wireless does not work, I will be updating the wireless section with the new wireless information.
Future Work

The work for this upcoming week is to understand how to establish a wireless communication of the implanted portion of our device. We also have to find a way to measure the resistance across the bladder more efficiently, as we can only measure the resistance up to 50% beyond that there is little or no change to the resistance. Dr. Enderle had proposed that we put a firm plastic around the bladder to find out if we can measure the resistance above 50%.

Project Review

We have been having major problems with our wireless communication, so we decided to order new wireless. We are also at a setback because the tubing we ordered is the incorrect size. We returned, the wrong size and we are hoping that the correct size along with the cuffs and wireless comes in by the end of next week so that we can work on it on Friday and next weekend.

Hours Worked

This week I worked 10 hours, majority of it spent doing research on our physical assembly, and research on the materials used and information for our user manual.