Week 11 Report

Work Completed

This week I again focused on the wireless communication portion of the device. I also assembled the artificial sphincter for the device.

Wireless Communication

After last week’s troubles we decided to go with the eb505 for our wireless communication. The week I created the circuitry necessary to connect the eb505’s to the computer for programming, via HyperTerminal. Once I had both eb505’s connected and their functionality was verified I connected one of the eb505’s to the CB220. I was able to use the CB220 to establish a connection to the other eb505 successfully.

Artificial Sphincter

We received the fluid balloons and manual pumps from Alan this week. We have connected the fluid balloon to the system and have been able to inflate and deflate the artificial cuff. There is some leakage due to the pressure not being great enough to completely close off the artificial urethra. We will need to continue work to see if this problem can be corrected. If we cannot find a solution to this situation then we will have to figure something out for our demonstration purposes.
Artificial Bladder

We will need to continue working with the artificial bladder to see if it will be successful in our presentation. I have my doubts so I believe that we can simply create a prototype that will show the basic concepts for the device using the bladder and kidneys and then just use the urine collection bag for the actual demonstration of the device.

Future Work

This coming week I will continue working with the wireless system. Once the y-connectors are received I will add the manual pump into the system and verify that it will work as an alternative in case of power failure or some other device malfunction.

Hours Worked

This week I worked 13 hours. Most time was spent troubleshooting wireless system, working on the artificial bladder, and assembling the artificial sphincter.