Pelvic floor Biofeedback Design

Client: Dr. Patrick McKenna, UW Urology Department

Advisor: Dr. Amit Nimunkar

Team: Sam Lines (Leader)

Michael Simonson (Communicator)

Shawn Patel (BWIG)

Andrew Vamos (BSAC&BPAG)

Date: 10/6/2014-10/10/2014

Problem Statement

Pelvic floor muscle biofeedback systems have been used to educate and train people how to correctly control the process of urination in children and elderly patients. As devices slowly fail or get outdated, a new device and interface system that can be used in conjecture with videogame like training programs is desired. With the completion of a basic EMG biofeedback system, our goal is to continue to improve the functionality of the software while simultaneously designing hardware with commercial standards in mind. This product will be designed and tested so that use in a hospital will be safe for both the hospital staff and the patients.

Last Week's Goals

- Work on implementing the driven right leg circuitry
- Prepare to order parts for the DC/DC converter
- Work on testing protocol for our device
- Continue research on FDA and IRB regulations along with any other regulations from various agencies
- Finish preliminary paper

Summary of Team Role Accomplishments

- Leader (Sam): Helped finish the paper and began finalizing DC/DC converter research
- Communicator (Michael): Continued FDA research and helped finish the paper
- BWIG (Shawn): Worked paper and helped do a majority of the formatting of it.
- BPAG And BSAC(Andrew): Worked on the paper and has taking control of testing protocol

Summary of Design Accomplishments

- We have finished the all of our preliminary deliverables and are ready to begin heavy work on the design again
- We have started to use Trello which is a task management website, and we all have goals that we would like to finish for next week

Project Difficulties

- We have spent a lot of time in the past week to finish all of our preliminary deliverables so not much was encountered in terms of project difficulties.

This Week's Goals

- Using our goals from Trello we intend to start finalizing parts of the design.
- According to our timeline we are a little behind schedule, so we plan to work hard this week to finalize and start to test our circuit
- With testing of individual parts, and basic construction complete, we will order the last few parts that we will need and begin testing as soon as possible

Activities

Person(s)	Task	Time (hrs)	Week Total	Semester Total
Sam	Paper	6	6	16
Michael	Paper	6	6	16
Shawn	Paper	6	6	16
Andrew	Paper	6	6	16

Timetable

- Due to the large size of our timeline, I will attach the full excel spreadsheet

Expenses

- No current expenses