

sdmay18-22: Adaptive Wireless Wearable Neuro-Stimulator

Week 8 Report

October 29 - November 4

Team MembersKevin Wang — *Meeting Facilitator*Kevin Simons — *Test Engineer*Matthew Stephenson — *Report Manager*Patrick Walsh — *Communication Manager*Brian Weber — *Chief Engineer*

Summary of Progress this Report

Android App:

In the past week we created all of the layouts that we want for the android app. However, due to our lack of experience in creating android applications, we were not able to get the layout functioning. We also created all of the main activities that we will be using, and that are connected to their respective layouts. We met with our faculty adviser to discuss the proper ways to create the layouts, and after the meeting he requested that we meet with him again the next week to see how we progressed.

Web App:

During this past week, we have created screen sketches for what we think the web app will need to look like. We will need to get the sketches approved by the client and make sure that we have a design that he likes.

Data Analysis:

During our last meeting with the client, we learned how to analyze the data and display it in a meaningful way. We have been looking into how to create an easily readable graph of the data we got from the client.

Circuit:

This past week, we decided that we will be using a raspberry pi as our evaluation board. We spent time analyzing what types of voltages come out of the I/O pins so that we could accurately pick out what components that we want to use in the coming week.

Pending Issues

Android App:

- Meet with faculty adviser to discuss layout issues
- Meet with client to show him current layout
- Fix layout issues
- Start implementing background utils

Web App:

- Get screen sketches approved by client
- Start creating software architecture to follow

Data Analysis:

- Write a matlab script to display the data in a readable way

Circuit:

- Figure out how to use the bluetooth for the Raspberry Pi
- Pick out components to use with the Raspberry Pi

Plans for Upcoming Reporting Period

Android App:

Fix issues with layout. Add functionality in terms of background utilities such as spoofing data with Bluetooth

Web App:

Get screen sketches finalized. Figure out architecture for the software implementation.

Circuit:

Look into Bluetooth functionality on Raspberry Pi. Based on the Pi I/O pinouts, make more final decisions on parts.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Kevin Wang	Met with faculty advisor on topic of Android app and some progress updates. Looking into how mock data for Bluetooth for app.	4	35
Kevin Simons	Worked on the screen sketches for the website, mostly the config page and an example for what a graph would look like and some ideas about what options it should have. Got the designs to run by our client finished. I wasn't able to make as much progress on the programming and testing as I would have liked due to a computer issue, that is fixed now though so I'll be continuing work on the actual programming next period.	4	42
Matthew Stephenson	Looked into different evaluation boards to build the circuit on. Found my Raspberry Pi and going to continue looking into how to best hook up sensors to it. Started looking into programming the Raspberry Pi.	4	38.25
Patrick Walsh	Created several android application layouts, and added their corresponding activity classes. Met with faculty advisor to discuss how best to go about creating the layouts we need.	5	39.5
Brian Weber	Looked into bluetooth programming for a Raspberry Pi. Also continued finding the best parts for the pcb	4	31.5

