EE / SE 492 Week 7 Status Report

Nov. 23, 2019 - Dec. 6, 2019

Group: sddec19-20

Project: Ultra-thin electronic skin for real-time health Monitoring

Advisor/Client: Liang Dong

Team Members:

Sovann Chak: Software Architect, iOS Developer

Omar El-Sherbiny: Circuit Design of Data Processing and Communication

Justin Gordon: Software Developer, Communication research

Sungmin Kang: Circuit design and analysis of Mobility sensor

Sangwon Lee: Circuit design and analysis of ECG

Passing Week's Accomplishments

Software Engineers

(Sovann)

- Created data model and efficiently store and save data
- Have the application connect to multiple BLE devices
- Finalize application

(Justin)

- Worked on implementing and connecting BLE
- Connecting to device
- Reading characteristics

Electrical Engineers

(Omar)

- Soldered the data acquisition circuits on a prototype board.
- Finalized ECG data acquisition circuit.

- ■ Switched to a hardware filter as opposed to using the digital FFT which was used in our initial prototype

(Sungmin)
- Finalized fabrication step (fusion)
- Made it visualize step by step
- Made poster for the presentation

(Sangwon)
- Finalized fabrication step
- Poster editing

Individual Contributions

Team Member	Contribution	Weekly Hrs	Total Hrs
Sovann	Allow for multiple BLE devices to be connected, store and show data, finalize application	8	104
Justin	Implemented BLE and graphing interface	7	92
Omar	Finalized data acquisition circuits and soldered them on a prototype board.	7	93
Sungmin	Finalize fabrication step, and make our poster about fabrication part.	6	100

Sangwon	Finalized fabrication step Poster editing	5	99

Plans for Next Week

(Sungmin) Finish testing and finalize project

(Sungmin) If our sensor has some problem, fix it

(Sungmin) Prepare presentation

(Justin) get data from devices

(Justin) graph data live

(Sovann) Finalize application

(Sovann) Add user profiles