

## EE / SE 492 Week 1 Status Report

Apr. 15, 2019 - Apr. 19, 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 and analysis of Sweat sensor

Justin Gordon: Software Developer, Communication research

Sungmin Kang: Circuit design and analysis of Mobility sensor

Sangwon Lee: Circuit design and analysis of ECG, DMD 3D printer

### Passing Week's Accomplishments

#### *Software Engineers*

##### **(Sovann)**

- Changed design of prototype
- Approved and ordered more parts to fit new design
- Put together initial prototype and began to receive data over serial port onto computer

##### **(Justin)**

- Researched Android studio framework
- Developed design for android UI
- Had initial meeting with client about types of communication we want to use for the project

#### *Electrical Engineers*

##### **(Omar)**

- Last semester's plan has been altered, and we will discontinue work on the sweat sensor due to time constraints.

- My new task is to design and build a wireless communication system that will communicate data from the sensor
- I started to look at published work to see what has been done in previous sensing systems, and will start working on initial circuit schematic and simulations next week.

**(Sungmin)**

- Double-check the sensors basic structure
- Measured conductivity of each sensors
- Try to think about how to make connector (electrode) strong on our devices
- IRB approving process

**(Sangwon)**

- Fabricate sensors and test

**Individual Contributions**

Team Member	Contribution	Weekly Hrs	Total Hrs
Sovann	Changed design of prototype and ordered the necessary parts for the version 2 of the prototype so we can begin true BLE communication.	6	63
Justin	Continued looking into development on android. UI creation and design.	5	60
Omar		5	48
Sungmin	Re-check the structure of our sensors, and measured conductivity of each sensor. Thinking about the way to make connector very stable and strong.	5	64

Sangwon	Fabricate sensors and test	6	57
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## Plans for Next Week

(Sovann) Receive parts for prototype

(Sovann) Solder necessary components

(Sovann) Begin to interface both the prototype and the test applications

(Sungmin) Get approving for IRB

(Sungmin) Start to test for ECG

(Sangwon) Test sensors

(Justin) Look into bluetooth communication

(Justin) Keep studying android mobile development

(Omar) Have initial design ready and simulated in software