

DEC15-04

Senior Design 491 - Weekly Report - DEC15-04 Fall 2015 Week 16 (8/31/15 - 9/7/15)

Advisor: Suraj Kothari
Project: Future Wearables
Client: Ted Krepos ("*Krepos Physical Therapy and Performance*")
Ensoft - Jeremías Saucedá
Members: Aaron Reyes - Team Leader
Nick Plutt - Webmaster
William Park - Communication Leader
Josh Cline - Key Concept Holder #1
Nick Gonner - Key Concept Holder #2

Weekly Recap:

We have been struggling to meet with our group as a full five due to time and schedule conflicts. This week was about setting goals and trying to find a specific timeframe where everyone was available. We also met with Jeremías about the direction and future goals of our project for the final part of the semester.

Meeting Overview:

September 2 2015 - **Meeting-24**

Duration: 1.5 Hours

Attendance - **24**

William Park	Class
Nick Plutt	Present
Aaron Reyes	Present
Josh Cline	Present
Nick Gonner	Present

1. This meeting was with Jeremías in regards to our future goals for this project.

Hardware

1. The hardware team was able to create another part list to give to Jeremías. We needed specific things in order to continue to meet our projects demands.
 - a. Conductive Fabric
 - b. Different Microcontroller
 - c. Stranded Wires

Software

1. Software team was told to continue working on the application along with creating a database (SQL-Lite) so that employees at EnSoft can view the data (as well as Ted).
2. Bluetooth functionality is complete on the hardware and almost complete on the software side for viewing raw data. There is just some minor changes that needs to be made in order for it to work as intended.

Accomplishments this week:

1. Met with Jeremías.
2. Got our new parts ordered.
3. Majority of Software Bluetooth functionality is completed.

Pending Issues:

1. Our EMG sensor is collecting data that is not strong enough for our therapist to read. We need to research and figure out a solution to solve this problem.
(continued)
2. Software application needs to be pushed within the next two weeks. The application needs to be able to receive and display data on the phone.
3. PCB and Battery solution for the hardware team (continued)
4. Create an actual wearable device by purchasing the last pieces to complete a working prototype. (continued)
5. Our microcontroller is not suitable enough for the amount of IMU's (4). We need to research and find a new microcontroller that fits our designs specifications. (continued)

Planning:

- i. Getting the design for the PCB finished.
- ii. Assembling the second prototype.
- iii. Software Team needs to push out a prototype application within the next two weeks that actively works around receiving and displaying data.
- iv. EMG solution needs to be researched.
- v. Finish Bluetooth Functionality and Graphing Data for Software Application

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Individual Contributions

Aaron : -- (2.5 hr)

- i. meetings

William: -- (7.5 hr)

- i. Weekly Report
- ii. Meetings
- iii. Android API coding. Bluetooth Connectivity. Receive and Display Data

Josh: -- (6.5 hr)

- i. Meetings
- ii. Working on Bluetooth

Nick P: -- (6.5 hrs)

- i. Meetings
- ii. Website organization
- iii. Android Graph API

Nick G: -- (1.5 hr)

- i. Meeting
- ii. Evaluation of the microcontroller

Total Contribution for the Project:

Aaron Reyes (54.2 hrs)

William Park (55.5 hrs)

Josh Cline (75.2 hrs)

Nick Plutt (62 hrs)

Nick Gonner(58.1 hrs)