

Biweekly Report

SD-May-24-16

Dates: Ending - 2/23/2024

Evan Rosonke, Ethan Houts, Thomas Kivlahan, CJ Reitz, Mensanh Namessi
02/24/2024

Project title: Temperature Sensors for Veterans with Paralysis

Client: Bae Systems/Adaptive Adventures

Advisor: Santosh Pandey

Previous Week Accomplishments:

Over the past two weeks, we have met with our project mentors at BAE system to discuss our progress. We have also discussed our upcoming plans and goals for our project.

Things we have worked on:

- Completed a schematic for how everything connects - Evan
- Placed a new parts order - Evan
- Got vehicle set up for a tour of BAE facility - Evan
- Started implementing prototype - Evan
- Started packaging electronics into an anklet after connecting the microcontroller to the battery and the sensor - Thomas, Mensanh
- Started putting sensors into an insole - CJ
- Got all teammates able to use the app for testing - Ethan

Pending Issues:

- Packaging our electronics into our anklets and the sensors into our insoles.
- Ensuring the accuracy of our sensors
- Calibrating alerts for both high and low temps accurately

Plans For Upcoming Weeks:

Software:

- UI Improvements
- Estimation calculation for how long until the temperature will reach dangerous levels, cold temp calibration, and implementing high temp warnings.

Hardware:

- Get parts ordered
- Build out multiple prototypes and test them
- Prep for shipping a working prototype to our client

Hours Spent working (not including advisor meetings)

Member	Estimated Time (hours)
Evan R.	12
Ethan H.	15
CJ R.	6
Thomas K.	5
Mensanh N.	4

Broader Context:

1. We did not find any new effects as there hasn't been any major change in our design and processes. The adverse effects are still only surrounding the materials used with the biggest limitation being battery technology.
2. We plan to get evidence of our project's positive effects as we send prototypes to Adaptive Adventures to test and give feedback.
3. Our way of addressing the negative impact of mass production of a product would be to make our production as efficient as possible with as little waste as possible.