

EE/CprE/SE 491 WEEKLY REPORT 2

Start Date – End Date: 9/19/2024 - 9/26/2024

Group number: 13

Project title: PTSD Detection Device

Client &/Advisor:

Advisor: Mohammed Selim

Client: Bae Systems - Alice Crutcher, Michael Goderre, Jennifer Plakyda, Ryan Littler

Team Members/Role:

Justin Scherrman **

Neil Prange **

Aidan Klimczak **

Justin Jaeckel **

Ty Decker - Team stenographer

Katerina Zubic - Team organizer

**Specific roles are to be decided once more information is collected about the project from the engineering mentor meeting.

○ **Weekly Summary**

Continuing off from last week's goals, we got in touch with BAE systems and set up a meeting time. They would like to have weekly 30-minute meetings on Thursdays to discuss progress, issues, ideas, etc. On the contrary, we are still proceeding in our efforts to contact the previous senior design team and retrieve the hardware. They have become unresponsive to our messages.

In regards to research we continued our efforts from last week. We have discussed our gathered information about current products out in the market. This is to get a base-line of seeing what has been working and what hasn't been. Additionally, by doing this kind

of research we are gaining possible design ideas.

A pseudo Gantt chart was created per our advisor's request. This is to ensure that our team is staying on track as it is easy to fall behind.

We finalize our work hour Google sheet. This is where we will log all of our hours. It is modular, however, the first page is comprehensive to all of our summed hours for the entire semester.

- **Past week accomplishments**

Neil Prange - Research

- Continued basic research into PTSD detection, looked into commercially available wearable sensors that could be viable.

Aidan Klimczak - Research

- Conducted product research for data sheets on previous PTSD design projects.

Justin Scherrman - Research

- Continued product research on haptic dog vets for ideas on how to humanely notify a dog with vibrations. Scheduled intro meeting with BAE engineering mentors.

Justin Jaeckel - Research

- Continued research into similar products as well as past PTSD Detector designs.

Ty Decker - Research

- Conducted research into similar products. Committed to taking notes for documentation for each professor, advisor, and team meeting.

Katerina Zubic - Research

- Compiled comprehensive notes from previous senior design group.
- Began drafting the Gantt chart; created a pseudo doc.
- Designed the work hours google sheet.

- **Pending issues**

- Retrieving previous groups' hardware.
- Need to discuss project scope with client.

- **Individual contributions**

<u>NAME</u>	<u>Individual Contributions</u> (Quick list of contributions. This should be short.)	<u>Hours this week</u>	<u>HOURS cumulative</u>
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Neil Prange	Attended BAE joint projects meeting, and did some research about similar senior design projects and other PTSD detection devices.	6	12
Justin Scherrman	Researched products for comparison. Reviewed past semester BAE projects from other universities. Group	6	12
Justin Jaeckel	Attended meeting with BAE and got in contact with past senior design group to retrieve hardware. Continued research into similar products.	6	12
Aidan Klimczak	Began research on data sheets for the microcontroller and ECG sensor from the previous project.	6	12
Katerina Zubic	Continue with research of past group. Gathering ideas of whether we should continue their project or start anew. Created pseudo gantt and work hours sheet	6	12
Ty Decker	Continued product research. Committed to taking notes during each meeting and organizing them in our Google Drive.	6	12

○ **Plans for the upcoming week**

- We did not get to discussing projects hardware, but this is a must in the next week. This is so we can decide whether or not we are going to continue building on the previous design or start from scratch. We need to discuss the pros and cons of each decision.
 - All team members
- Need to retrieve hardware. This is so we have the equipment, so once we are ready to look into testing and understand devices, we have a start.
 - All team members. Justin J is still trying to get in touch with previous member.
- Continue research on current market equipment as well as devices used to

monitor PTSD attacks

- All members

○ **Summary of biweekly advisor meeting**

Our group met with Professor Selim on Monday (9/23). Reviewed team expectations in regard to reporting time worked and organization. Stated that we should develop a Gantt chart for team expectations and goals. He also stated that we should decide between starting a new design or continuing from the previous group's work by the next advisor meeting.