

**EE/CprE/SE 492 WEEKLY REPORT 5**  
**4/7/2023 to 4/21/2023**

**Group number:** sdmay23-08

**Project title:** PTSD Detection Device

**Client:** America's Vet Dogs

**Advisor:** Mohammed Selim

**Team Members/Roles:**

Steven Trinco - Hardware Design and Discord Admin

Jon Pixler - Hardware and embedded systems lead

Sam Brang - Hardware Design

Comlan Bocovo - Client Interaction - Software Design and Time Management

Maisy Millage - Software Design

Carver Bartz - Software Design

**Weekly Summary:**

For the hardware side of things, we were able to 3D print the enclosure to its finalized state. We were able to fix the lid to the bottom piece which worked functionally this time. Additionally, we were able to get our power supply in our possession. The enclosure has been securely added to our dog vest. We are waiting on the bluetooth connection to be completed in order to test out the device inside the enclosure and make sure that the vibration motors will work well with the placement of the enclosure on the vest. As for the software side of the project there has been work on getting the heart rate information pulled along with continued work on the bluetooth connection.



#### **Past Week Accomplishments:**

- Printed enclosure parts
- Fitted both pieces of the enclosure together
- Received power supply
- Added enclosure to the dog vest

#### **Pending Issues:**

- Need to fix finalized 3D printed lid to finalized 3D printed bottom.
- Finish up the backend items.
- Get heart rate information

### Individual Contributions:

| Name          | Individual Contributions  | Hours This Week | Hours Cumulative |
|---------------|---|-----------------|------------------|
| Steven Trinco | Printed and fixed enclosure parts to each other. Picked up power supply.  | 8               | 22.4             |
| Sam Brang     | Added the enclosure to the dog vest.  | 4               | 14               |
| Jon Pixler    | Built and rebuilt Bluetooth hardware using multiple power supplies and multiple devices as well as separate Bluetooth modules to achieve Bluetooth connectivity. Connectivity achieved, but only periodically, not stable enough for complete implementation. Pivoted to building entire electrical hardware subsystem for installation inside dog device enclosure to provide vibration notification to the service animal upon PTSD attack detection. | 14              | 28               |
| Carver Bratz  | Backend work  | 5               | 28               |
| Maisy Millage | Researched health package for app to get health data, ie. heart rate. Continued working on UI for settings.   | 5               | 19               |
| Comlan Bocovo | Researched on Bluetooth permission for android devices.   | 4               | 14               |

### Plans For the Upcoming Weeks:

- Make sure the enclosure is perfectly sized for all components when implemented
- Work on final presentation
- Work on final project document
- Work on poster

### Summary of Weekly Advisor Meetings:

During our advisor meeting we talked about how we are going to wrap up our project. We needed to have our hardware done this week and needed to continue working on the software side of the project. We also talked about how we will have a practice presentation with our advisor before the final presentation, similar to how we did things last semester.