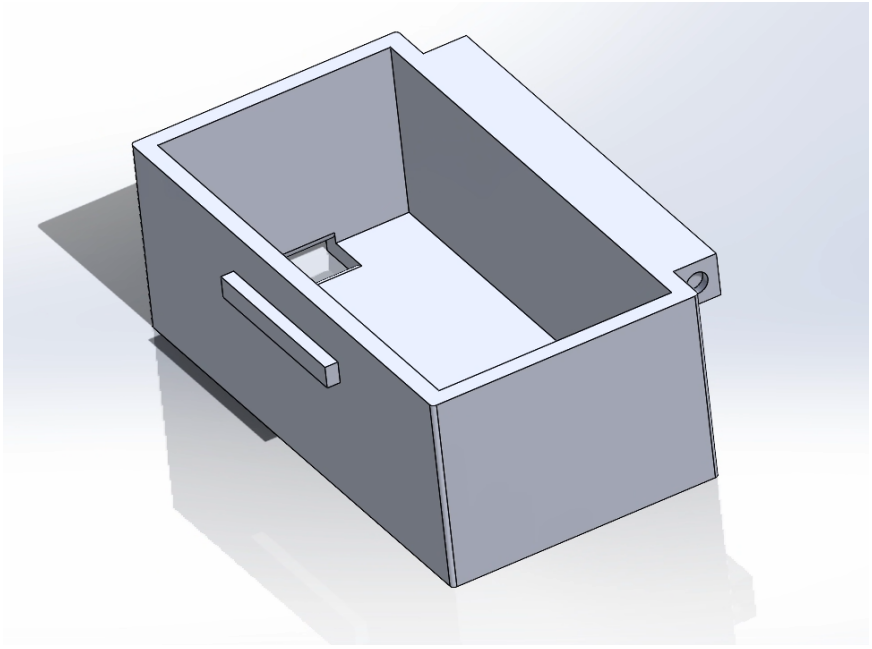
EE/CprE/SE 491 WEEKLY REPORT 2
2/18/2023 to 3/03/2023
Group number: sdmay23-08
Project title: PTSD Detection Device
Client: America's Vet Dogs
Advisor: Mohammed Selim

Team Members/Roles:
Steven Trinco - *Hardware Design and Discord Admin*
Jon Pixler - *Hardware and Embedded Systems Lead*
Sam Brang - *Hardware Design*
Comlon Bocovo - *Client Interaction, Software Design, and Time Management*
Maisy Millage - *Software Design*
Carver Bartz - *Software Design*

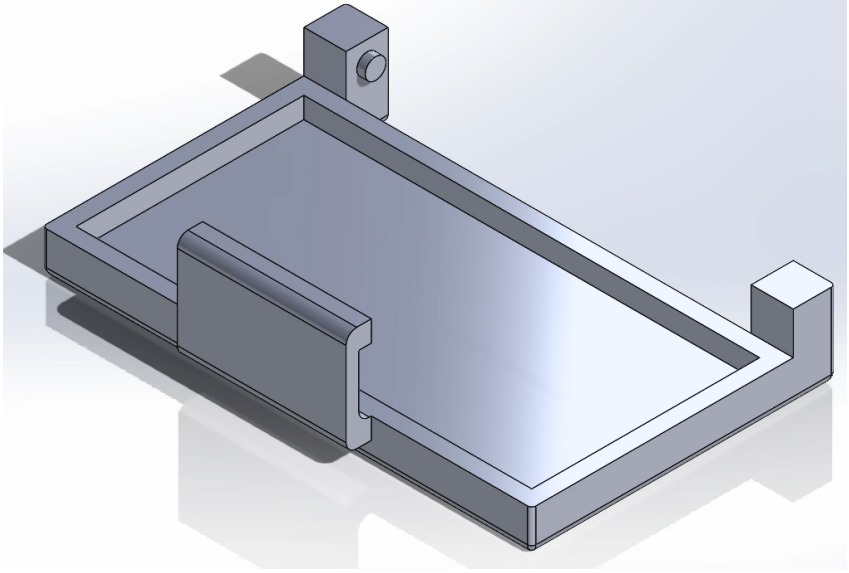
Weekly Summary:

During this past week our group worked on designing the enclosure for our dog device along with ordering and attaching an antenna to our arduino to allow for a stronger bluetooth connection. During the time of our last report we discovered that the built in bluetooth connection on the arduino wasn't going to be strong enough for our purposes unless the service dog is within 3 feet of our veteran, which isn't always manageable. We also met with our client and advisor to discuss what we are currently working on along with what we are going to be doing in the next few weeks. We also checked into the bluetooth discovery code for our device. Below we have added images of the enclosure we are planning on getting printed out this weekend.

Bottom of enclosure



Top of enclosure



Past Week Accomplishments:

Steven Trinco - Created 3d model drafts for the enclosure and printing first prototype
Jon Pixler - Researched parts to order, ordered parts for stronger bluetooth connection, began development of bluetooth pairing protocol for arduino over hc-05 module.
Sam Brang - Received the dog vest from the veterans. Updated the team website. Checked out the dog enclosure and battery packs with Steven.
Comlon Bocovo - Client meeting, biweekly report, Team Meeting, Learned Arduino coding
Maisy Millage - UI activity page progress
Carver Bartz - Bluetooth discovery code does work on button press, however there are issues with permissions

Pending Issues:

Steven Trinco - Figure out which clips and external power bank to use that are reasonably optimized for our design.
Jon Pixler - Complete bluetooth protocol, test bluetooth connection between arduino and flutter application.
Sam Brang - None
Comlon Bocovo - None
Maisy Millage - None
Carver Bartz - Limitations with the emulator cause problems with testing

Individual Contributions:

Name	Individual Contributions	Hours This Week	Hours Cumulative
Jonathan Pixler	Researched parts to order, ordered parts for stronger bluetooth connection, began development of bluetooth pairing protocol for arduino over hc-05 module. Picked up parts after order was delivered. Created resistor network for connecting the bluetooth module to the arduino properly. Built the breadboard with all components connected.	5	15
Steven Trinco	Created 3d model drafts for the enclosure and printing first prototype	3.5	7.5
Comlan Bocovo	Learned Arduino coding	2	4
Maisy Millage	Updated flutter/dart dependencies. Continued work on UI.	2	5
Carver Bartz	Worked on the bluetooth permissions for an android device. Need run on actual device due to emulator limitations	5	15
Sam Brang	Worked on getting the website updated. Checked out the enclosure design and talked through details with Steven.	2	6

Plans For the Upcoming Weeks:

- Find and purchase external power supply and clips
- Find solution to bluetooth problems

Summary of Weekly Advisor Meetings:

In our advisor meeting we talked about what we have accomplished this past week and what we will be working on in the coming weeks. We also discussed our plans to buy a battery pack, some clips, velcro, and the process to print our enclosure.