

## **EE / CprE / SE 492 – sdmay25-12**

### **Pressure Sensor Patch**

### **Status Report 6**

*April 13rd, 2025 - April 17th, 2025*

*Client: BAE Systems, Adaptive Adventures*

*Faculty Advisor: Santosh Pandey*

#### **Team Members:**

*Aina Qistina Binti Azman - Software Developer*

*Bilal Hodzic - Software Lead*

*Nathan Turnis - Software Developer*

*Osaïd Samman - Scrum Master/Manager/Team Organization*

*Sabrina Francis - Hardware Developer*

*Zane Lenz - Hardware Developer*

*Ivan Alvarado Santoy - Hardware Lead*

#### **Weekly Summary**

This week, we continued testing our device and expanded our user base to improve the diversity and reliability of the data collected. We are currently analyzing the data obtained from these tests to evaluate performance and identify areas for improvement. Additionally, we are nearing completion of a second device, which we plan to send to Adaptive Adventures for user testing and feedback.

#### **Past Week Accomplishments**

- Osaïd Samman:
  - Tested the device
  - Let other people try the quick start instructions to make sure it's easy to follow
  - Designing the logo
- Ivan Alvarado-Santoy:
  - Test different pico and amplifier clock speeds
- Zane Lenz:
  - Device testing
  - Poster creation
- Nathan Turnis:
  - Continued to test the device
  - Started final Design Document
  - Discussed data transformations
- Bilal Hodzic:
  - Started final Design document
  - Parsed data and created output files

- Testing
- Aina Azman:
  - Actively participated in the project testing process and assisted in the collection of data for ongoing analysis.
  - Drafted the final project poster, outlining key content sections to effectively showcase our work.
  - Evaluated various poster design layouts to ensure the final poster meets all requirements while remaining clear and engaging.
- Sabrina Francis:
  - Tested other machine learning models' accuracy
    - Tested random forests and gradient boosting
  - Collected more data
  - Soldered more tiles for the second device

### **Individual Contributions**

<b>Team Member</b>	<b>Contribution</b>	<b>Weekly Hours</b>	<b>Total Hours</b>
Aina Qistina Binti Azman	Poster prototyping, device Testing	5	84
Bilal Hodzic	Testing and data output.	10	141
Nathan Turnis	Testing, testing, testing	6	97
Sabrina Francis	Tested more machine learning models	20	111
Osaid Samman	Device testing, instruction testing, logo design	15	81
Zane Lenz	Poster prototyping, Device testing	6	78
Ivan Alvarado-Santoy	Test clock speeds	4	87

### **Pending Issues**

- None

### **Plans For the Upcoming Week**

- Send out the device to Adaptive Adventures
- Continue doing testings
- Finalize Design Document
- Create Poster
- Create Slide Presentation
- Integrate machine learning model into system
- Plot data