

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

### **Pressure Sensor Patch**

#### **Week 1 Status Report**

*December 23rd, 2024 - January 30th, 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*

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

Sabrina Francis - *Hardware Developer*

Zane Lenz - *Hardware Developer*

Ivan Alvarado - Santoy - *Hardware Lead*

#### **Weekly Summary**

Scheduled team meetings. Met with Adaptive Adventures to ask and discuss questions.

#### **Past Week Accomplishments**

- Osaid Samman:
  - Renewed lab key
  - Brainstormed further improvements and how to proceed with project
- Ivan Alvarado-Santoy:
  - Research potential use of Deepseek technologies for project
  - Soldered 8 combinator boards to amplifiers
  - Start research for power circuit needed to support 4 tiles or possibility of using different microcontrollers
- Zane Lenz
  - Brainstormed how to improve design
  - Renewed 3D Printing badge
  - Renewed lab key
- Nathan Turnis:
  - Brainstormed further app solutions
    - Layout
  - Renewed lab key
- Bilal Hodzic
  - Pseudocoded multi sensor communication scheme
  - Looked into microcontrollers for working with multiple sensors
  - Worked with bluetooth
- Aina Azman:
  - Implemented some basic layout for the application for later integration with

the planned usage features.

- Basic Table for History Page
- Basic Card to input pressure threshold
- Explored backend development to gain a general understanding of its functionality and workflow.
- Reached out to the ISU Physical Therapist team with clinical questions.
- Sabrina Francis:
  - Brainstormed product improvement
  - Renewed lab room key

### **Individual Contributions**

<b>Team Member</b>	<b>Contribution</b>	<b>Weekly Hours</b>	<b>Total Hours</b>
Aina Qistina Binti Azman	Added some layout into app and learned backend	10	57
Bilal Hodzic	Looked into bluetooth and multi sensor	4	56
Nathan Turnis	Brainstorm	1	49
Sabrina Francis	Brainstormed improvement	1	47
Osaid Samman	Brainstormed	1	37
Zane Lenz	More 3D printing	6	48
Ivan Alvarado-Santoy	Soldered 8 combinator boards to amplifiers	4	54

### **Pending Issues**

- Create more prototypes and test them
- Figure out general architecture for app
- Pending a response from the ISU physical therapist regarding the questions emailed.

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

- Build more sensors