

## **EE / CprE / SE 492 Weekly Report**

February 27 - March 06, 2025

sddec25-08

Smart Home Control Unit for Energy Optimization

Faculty Advisor / Client: Md Maruf Ahamed

### **Team Members:**

- Seth Proctor - Designer
- Alexander Ryan - Software
- Jacob Carnesi - Project Manager
- Arie Kraayenbrink - Client Relations
- Gamage Binula Karunaratne - Hardware
- Erik Schmidt - Embedded Systems

### **Summary of Work:**

We have finalized the high-level design of our smart home system. We completed the integration of Jira and Gitlab by creating a new GitLab group and repository for our team to use. Additionally, our team completed our lightning talk and the first part of the design document. We have also created teams with specific goals and focuses to more effectively divide the work we need to do.

### **Work Period Accomplishments:**

- Finalized high-level design.
- Completed Jira and Gitlab integration.
- Completed our first lightning talk.
- Completed part 1 of the design document.

### **Plans for Coming Week + Action Items:**

- Seth Proctor- This week, our group plans to meet and discuss a high-level design for our project. Having that will allow us to split the work that needs to be done into categories. From there, we can divide those categories into tasks for individuals to start working on and researching. For next week, I plan to choose one of these tasks and start working towards completing it.
- Alexander Ryan- Work on a plan for how users will be able to interact with the device and what exactly we want them to be able to do

- Jacob Carnesi- I will be attending military training for the next two weeks and will not be able to do any work.
- Arie Kraayenbrink- I plan to continue breaking down the project so we can focus on the hardware needed.
- Gamage Binula Karunaratne- Work with the broken down team and start working on the components inside the home.
- Erik Schmidt- Broken down the team and started researching and prototyping mockups for the sensors that will be inside the home.

**Pending Issues:**

- Seth Proctor- No issues
- Alexander Ryan- No issues
- Jacob Carnesi- I will be gone.
- Arie Kraayenbrink- No issues
- Gamage Binula Karunaratne- No issues
- Erik Schmidt- No issues

**Individual Contributions:**

Team Member	Contribution	Weekly Hours	Total Hours
Jacob Carnesi	Completed work with ETG to successfully integrate GitLab and Jira. Edited and submitted the first copy of the design document. Revised and helped present the lightning talk. Helped with high-level design.	3	15.5
Seth Proctor	Worked on the lightning talk slide presentation. Collaborated with the group to create a high-level design document.	3	16.5

Arie Kraayenbrink	Worked on team design document and lightning talk slides.	3	15
Binula Karunaratne	Worked on the introduction design document. Worked on the lightning talk slides about standards, constraints and requirements. Collaborated with the group to come up with a brief layout for the project.	3	14
Erik Schmidt	Created slides for lightning talk, discussed the design of Hub and sensors with team, and started thinking of prototypes or possible solutions for sensing ambient light.	3	14.5
Alexander Ryan	Laid out high-level architecture for the design of our project. Created some slides for the lightning talk and presented them to the class.	3	14.5