

EE/CprE/SE 492 BI-WEEKLY REPORT 1

8/16/20 – 8/30/20

Group number: 18

Project title: Magic Door Sensors

Client & Advisor: Daji Qiao

Team Members/Role:

Mitchell Bratina/ Project Plans Engineer

Calvin Christensen/ Engineering Activities Director

Isaiah Exley-Schuman/ Reports and Documentation Management

Collin Kauth-Fisher/ Conflict Resolution and Server Management

Joseph Kueny/ Meeting Facilitator

Past week accomplishments:

- Meeting with advisor – everyone
 - Updated advisor on status of project, future plans
- Future planning – everyone
 - Updated each other about availability and summer progress
 - Established meeting times
- Consolidated parts – Joseph, Isaiah, Calvin
 - Brought parts to a central location to build up a test unit/test
- Antenna research – Joseph
 - Find optimal antenna shape
 - Find optimal antenna orientation

Pending issues: Performance testing of initial components is dependent upon component delivery.

Individual contributions:

Name	Contributions	Hours this period	Hours cumulative
Mitchell Bratina	Attended meetings, assisted in scheduling & future planning.	12	24
Calvin Christensen	Attended meetings, consolidated parts, Researched CSI	12	24
Isaiah Exley-Schuman	Attended meetings, consolidated parts, drafted reports	12	24
Collin Kauth-Fisher	Attended meetings, re-acquainted with interface work from last semester	12	24

Joseph Kueny	Scheduled and attended meetings, completed antenna research, built antenna proof of concept.	12	24
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Comments and extended discussion: The beginning of the semester usually involves some disorientation and failed communication. As a result, the output of these past 2 weeks was sub-par. This is expected to improve in the next report.

Plans for the upcoming weeks:

- ESP32 room – Collin & Joseph
 - Set up a station that can be remotely accessed so that each team member can work with the ESP32 remotely
- ESP32 programming & calibration – everyone
 - Detect when a door is open and when it is shut
- Transmitter Device Testing – everyone
 - Build prototype transmission device for active door sensing
 - Measure power requirements, latency, transmission success rate, and data integrity

Summary of weekly advisor meeting: The meeting with Daji consisted of catching each other up with what our project is supposed to be. We need to consolidate all the parts, so Isaiah and Joseph will meet to do that. But we will also need Calvin's raspberry pi and ESP32. Daji wants us to focus on CSI, so Collin and Joseph will set something up in one of their spare rooms that everyone can remote into to work on.