

EE/CprE/SE 492 BI-WEEKLY REPORT 2

8/31/20 – 9/14/20

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, discussed plans for the next couple weeks.
- ESP32 room – Collin & Joseph
 - Room is set up
 - Remote access is being worked
- Antenna research – Joseph & Calvin
 - Find optimal antenna shape
 - Find optimal antenna orientation
- Schematic & block diagram creation – Isaiah
 - Made schematic for active sensing door module
 - Working schematic for passive sensing

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, researched CSI	12	24
Calvin Christensen	Attended meetings, continued antenna shape and orientation research	12	24
Isaiah Exley-Schuman	Attended meetings, made schematic for active sensing door module, drafted reports	12	24
Collin Kauth-Fisher	Attended meetings, set up ESP32 room, consolidated parts	12	24

Joseph Kueny	Attended meetings, set up ESP32 room, continued antenna shape and orientation research	12	24
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Comments and extended discussion: NA

Plans for the upcoming weeks:

- ESP32 room – Collin & Joseph
 - Set up remote access 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: During the meeting with Daji we caught each other up with our progress. We consolidated parts last week, all that Joseph still needed was Calvin's raspberry pi and ESP32. Daji re-emphasized CSI. Collin and Joseph set up in one of their spare rooms, but there is currently no way for the team to remote in. The team decided to continue research and documentation and to implement theories once access is available.