EE/CprE/SE 491 BI-WEEKLY REPORT 3

2/17/20 – 3/1/20

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

Summary: After meeting with Daji, we refined our requirements and goals for the project and have a parts list ready to order for initial testing. We have placed the order for these parts, and we expect them soon. In the meantime, we are looking into CSI as a possible means of determining if a door is opened.

Past week accomplishments: The design document was drafted after much debate about requirements, and the project needs were further discussed to open the possibility of implementing CSI alongside our active sensor.

Pending issues: Performance testing of initial components is dependent upon component delivery, there are no blocked issues otherwise.

Individual contributions:

Name	Contributions	Hours this period	Hours cumulative
Mitchell Bratina	Contributed to design document	12	36
Calvin Christensen	Researched RF harvesting and power expectations/requirements	12	36
Isaiah Exley-Schuman	Prepared submission materials, including B3 and design doc.	12	36
Collin Kauth-Fisher	Updated team webpage with details and reports. Continued work on the backend, building up API paths and doing design and frameworking for future implementation.	12	36

Joseph Kueny	Worked on design doc.	12	36

Comments and extended discussion: N/A

Plans for the upcoming weeks: Parts will come in and team members will begin testing, and everyone will do their part to research CSI implementation strategies. We will also be sourcing a transmitter circuit, further fleshing out the design doc, and preparing for our next lightning talk.

Summary of weekly advisor meeting: We met with Daji who showed us into the lab where other students are working on wireless power applications and discussed implementing CSI.