

EE/CprE/SE 492 WEEKLY REPORT WEEKS 5, 6

September 24, - October 5

Group Number: 14

Project Title: IoT Passive Monitoring of Assisted Living Homes

Client: Andrew Guillemette, Optical Operations

Advisor: Goce Trajcevski

Team Members/Role:

Trevor Henderson	-	Server Team
Nick Schneider	-	App Team
Austin Kerr	-	App Team
Austin Sudtelgte	-	Hardware Team
Ryan McCullough	-	Hardware Team
Josh Blanck	-	Hardware Team

Weekly Summary

Met with Client 9/23, Team brought client up to date on status of app. Discussion about the viability of current load cells: due to reading decay, a different, uniaxial model may be required. Client also provided us with a calibration constant (.001794 L/tick) for the flowmeter. It was noted that our project will need to be in a state to “hand off” to future teams; plans for the “hand off” meeting will be determined at a later date.

Met with Advisor 9/25, discussion focused on our Test cases and test plan.

Met as a Team 9/27, Trevor presented an overview on the server organization. Discussed upcoming goals.

Met with Client 9/30, discussion focused on reorientation of priorities: the install and Event Identification now takes high precedence over any hardware/software related to the toilet. Further discussion on event identifier logic and reasoning (what constitutes an event, how events are determined, etc.) Progress was made on the Questionnaire to verify against the data collected.

Met as a team 10/4, focused on status updates and current tasks.

Past period accomplishments

Trevor Henderson: Worked with app team to ensure communication went smoothly.

Reconfigured database for a more logical solution to new additions to our application. Launched the server on the new AWS EC2 and configured security groups. Meet with the client to discuss the questionnaire and spoke with the client's second senior design team to get them up to get them up to speed on the backend.

Nick Schneider: Worked on app login authentication and cleaned code. Helped create questionnaire and daily log. Recorded notes for meetings.

Austin Kerr: Worked with Trevor to get the server and the app communicating. Cleaned up the gitlab. Worked on the app UI. Helped the team create and refine the questionnaire for installing the sensors in the test apartment.

Austin Sudtelgte: Re-hashed deliverables and goal deadlines with the client, acquired hardware and an AWS account for the client, aided in making the raspberry pi's read from multiple sensors at once. Assisted in the creation of a questionnaire, created test cases, and helped create a daily log for the test resident.

Ryan McCullough: Wrote script to start multiple sensor scripts at the same time on the same pi, reconfigured http connections, and added some differentiation between different sensors on the local server.

Josh Blanck: Finished Bi-Weekly Report 2, worked on Questionnaire and documentation related to the test space. Finished restructuring of the repository.

Pending issues

Austin Sudtelgte: Door sensor script errors out on closing doors at the exact same time.

Individual contributions

Name	Individual Contributions	Hours this period	Hours Total
Trevor Henderson	See past period accomplishments.	12	20
Nick Schneider		8	15.5
Austin Kerr		11	20
Austin Sudtelgte		10	21
Ryan McCullough		14	24
Josh Blanck		4	12

Plan for coming period:

Trevor Henderson: launch application authentication service. Install the system in a residence and begin collecting data to analyze.

Nick Schneider: Continue to clean app. Help create finalized versions of the questionnaire and daily log.

Austin Kerr: Change the app to get all sensor events instead of events by sensor id. Work on documentation for the app for the second senior design team. Going to set up a template for displaying the smart outlet data in the app.

Austin Sudtelgte: Fix door sensor script, test flowmeter script, install sensors in test environment, PIRM presentation 02, and begin determining event identifiers.

Ryan McCullough: add error handling to sensor scripts and help install in test environment

Josh Blanck: Work with the hardware team on troubleshooting, report 4.