

## EE/CprE/SE 491 WEEKLY REPORT WEEK 11

March 25 - March 31

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	--	Test Engineer
Nick Schneider	--	Meeting Scribe
Austin Kerr	--	Chief Engineer
Austin Sudtelgte	--	Chief Engineer
Ryan McCullough	--	Meeting Facilitator
Josh Blanck	--	Report Manager

### Weekly Summary

Met with client on Sunday. Meeting focused on reviewing remaining schedule and refining as necessary. Discussed tentative plans for next semester. Met as a team on Monday. Meeting focused on preparing for the lightning talk. Met with advisor on Monday. Did not end up presenting lightning talk Tuesday. Made extensive progress using the work day on Saturday.

### Past week accomplishments

All: Had a work day Saturday to make progress on the technical aspects of the project as a group: testing for the door sensor and flowmeter functionality is effectively complete: accurate data can be pulled from the sensor to the Raspberry Pis. The load cells cannot yet be tested until the remaining cells arrive. The application is now targeting only the Android platform, as enough issues occurred with Xamarin to justify the switch. Cross-platform application is now added as a potential feature for next Semester.

Trevor Henderson: Worked on the REST endpoints for the application server. Began work on deploying the web services on Azure

Nick Schneider: Recorded meeting discussions. Worked towards creating UI for Android app. Helped to decide that Xamarin will not be useful for this semester. Switched from Visual Studio to Android Studio to develop app.

Austin Kerr: Worked on the app using Xamarin initially and then switched to Android Studio.

Austin Sudtelgte: Worked on setting up sensors for testing, writing code for the sensors and configuring the raspberry pi's to work with the sensors, and began setting up a basic HTTP server as an intermediary device between sensors and the cloud server.

Ryan McCullough: Worked on Xamarin testing, Successfully tested door sensor and wrote raspberry pi python code for the door sensor. Worked on http connections.

Josh Blanck: Looked into Xamarin testing via Xamarin Live Player.

### Pending issues

Trevor Henderson: Deploying a Java Spring application to Azure App Services

App Team: Android development needs to be transferred over to Android Studio, and app developers need to plan who is doing what.

Austin Sudtelgte:

Ryan McCullough: Figure out the problem with the http connections.

Austin Kerr: Need to determine endpoints for the HTTP requests.

### Individual contributions

Name	Individual Contributions	Hours this week	Hours Total
Trevor Henderson	See past week accomplishments.	12	36.5
Nick Schneider		10.5	37.5
Austin Kerr		12	36
Austin Sudtelgte		11	38.5
Ryan McCullough		12	36
Josh Blanck		6	32.5

### Plan for coming week

All: Testing

Trevor Henderson: Finish setting up HTTP endpoints for the rest of the team to connect to

Nick Schneider: Meet with app development team and develop a plan for who needs to do what. Finish most of Android app. Help with what I can for sensor.

Austin Kerr: Continue development on app. Set up the endpoints for the requests and do testing with mock and real data.

Austin Sudtelgte: Complete HTTP server and begin pushing data to it from the sensors. Add routing that formats data and sends it on to the cloud server

Ryan McCullough: Work on HTTP client side code, get caught up on the android app.

Josh Blanck: Get up to speed on progress from the work day, continue development on app, time permitting; look into Xamarin issues.