

## EE/CprE/SE 491 WEEKLY REPORT WEEKS 7 & 8

February 18 - March 3

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

### Period Summary

Note: Due to other exams and personal emergencies, progress these weeks was significantly halted. Thus, these two weeks are combined into one report.

Week 7: Met with client on Sunday, focused on tasks that needed completion, specifically determining which Azure services are required. Met as a team on Monday, focus on discussing Design Document and lightning talk. We were unable to deliver our lightning talk due to time constraints. Met as a team on Friday focus on Azure services needed for this project. Azure services desired include Cosmos DB, Stream Analytics, Notification Hub, and Security.

Week 8: Met with client on Sunday, focused on specifics for sensor justification. Met as a team on Monday, focused on Design Document. Met with advisor on Monday, focused on in-depth feedback on our Design Document. Many refinements need to take place.

### Past period accomplishments

All:

Picked out necessary Azure services. Began work on Design Document v1.

Trevor Henderson:

Worked on the Functional and Non-Functional Testing portions of the design document as well as researched the Azure services and brainstormed ideas for the overall cloud architecture.

Nick Schneider:

I took notes during meetings and began brainstorming ideas that I would convey on the design document.

Took notes during meetings for team. Wrote and revised "Hardware and Software" section of design document.

Austin Kerr:

Researched different Azure services that could be useful for the project in the future in addition to working on the design document. Went through notes from Goce and make revisions to the design document. Helped the team finalize the list of sensors and work on pin

mapping between the sensors and the pi. Researched the Pi and PiZero's hardware and software specifics.

Austin Sudtelgte:

Research Azure services and determine sensor to raspberry pi configurations as well as work on the design document.

Ryan McCullough:

Researched azure services and advisor recommended references.

Josh Blanck:

Researched into Azure services and worked on Design Document.

### **Pending issues**

All: Design Document needs finishing and submission.

### **Individual contributions**

Name	Individual Contributions	Hours this period	Hours Total
Trevor Henderson	See past period accomplishments.	2	14.5
Nick Schneider		5	16.5
Austin Kerr		3.5	14.5
Austin Sudtelgte		2	18.5
Ryan McCullough		2	14.5
Josh Blanck		3	17.5

### **Plan for coming week(s)**

All: Finalize architecture diagram(s). Send sensor list to client. Finish design document.

Trevor Henderson: Better familiarize myself with Azure Cloud services.

Nick Schneider: Finish Design Document. Meet as a team and agree on a direction to take the project in the next few weeks.

Austin Kerr: Look into the data output for flow sensors, is digital an option? Help finalize sensor list so we can purchase before break.

Austin Sudtelgte: Complete list of sensors and give list to client, complete design diagram, and finish architecture diagram.

Ryan McCullough: Finish Design Document.

Josh Blanck: Finish and revise Design Document. Research more in depth on Azure Services and on Security aspects.

