sdmay18-34: Integration of personnel tracking in an Augmented reality environment
Week 3 Report
September 18 - October 1

Team Members

Logan Highland — *QA Lead*
Chandler Chockalingam — *Project Manager*
Christopher Stapler — *Report Manager*
Josua Gonzales-Neal — *Chief Engineer*
Jason Ramirez — *Software Architect*
Victor Da Silva — *Chief Engineer*

Summary of Progress this Report

This week our past week our team met with both our client and adviser. During these meetings we discussed the results of our research solutions for the personnel tracking problem. Each team member researched into five different potential solutions and reported back to our adviser. We listed our solutions in a PowerPoint presentation and will report to our client in the next week the most viable options that we have found.

Pending Issues

As most solutions related to the tracking problem are hardware based, we will need to do more research into the implementation details of the solutions to find ones that we can implement in a timely fashion.

Plans for Upcoming Reporting Period

Next reporting period we hope to have filtered down solutions to the tracking problem.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Logan Highland	Reasearched published papers and patents for something that will give us ideas for how we could set up a tracking system accurate enough to meet our goal of .5 to 1 m accuracy. Only a couple solutions came from it, including some that were not feasible for our project.	5	14
Chandler Chockalingam	Research solutions for tracking using various communication protocols and devices. Then compiled research findings into powerpoint slides to deliver to our adviser.	5	12
Christopher Stapler	Researched tracking solutions. Started out by looking at tracking solutions that have been implemented already and are in constant use.	7	15

	After some time, I could any solution that is being used frequently and that provided the accuracy we require. Next, I began looking into research papers in the area of localization using RF, specifically building on wifi, to localize and a target in an environment. There were many papers describing this specific topic, however, there were less papers which detailed an approach with the accuracy we need and actual working experiment data and solution implementation details. I then narrowed down the papers to the top five that I thought we might be able to use or take ideas from.		
Josua Gonzales-Neal	Researched papers, patents, and open-sourced software for different tracking solutions. Added to research slides.	4	13
Jason Ramirez	Research different methods for evaluating the potential of certain technologies for being used for tracking obejcts in real time. After research, searched online from different vendors for the best price on parts the team will need.	4	12
Victor Da Silva	Research on what to do with data from locations of personnel/different location tracking methods	5	11