

**sdmay18-34: Integration of personnel tracking in an Augmented reality environment****Week 3 Report**

February 12 - February 23

**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*

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**Bi-Weekly Summary**

From the previous week to this week the focus of the team has changed. From Meetings with our client, some tasks that we had been previously assigned will be taken care of by external resources. On the HoloLens side, 3D models will be created for the team instead of us making them ourselves. In regards to the tracking and services side, our client will be issuing us cisco access points to setup up an outside demo. With these access points comes a API that will be integrated into our system to help us determine the all locations of deployed access points and Tx power.

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**Past Week Accomplishments**

- Hololens Team - Josua and Victor:
  - Had meeting with client to discuss goals and deliverables. Created a timeline of deliverables with difficulties levels. Discussed the possibilities of help depending on the deadlines. Worked with co-founder to get 3D assets to be implemented in app.
- Services Team - Chandler and Jason:
  - Had meeting with Cisco, Logan, and our client where we discussed the use of the Cisco Meraki API in our services
- Tracking Team - Chris:
  - Made improvements to the tracker code. Added a configuration file that tracker command line reads that stores things such as the url of services endpoint might need to be changed frequently. Worked on determining how to set Tx power of given tp link aps running a customized openwrt firmware.
- Floater - Logan:
  - Decided to use Dashboard of company already created, started research into Meraki API's.

## Pending Issues

- Hololens Team - Josua and Victor:
  - Getting the HoloLens application deployed without crashes.
  - Connecting the Hololens Unity app to the services portion using socket.io
- Services Team - Chandler and Jason:
  - Getting real world tests completed as opposed to simulated tests
- Tracking Team - Chris:
  - Configure tp link access points order by client and set them up in our current testing environment.
- Floater - Logan
  - N/A

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## Plans for Upcoming Reporting Period

- Hololens Team - Josua and Victor:
  - Josh: Create a deployable version of the application. (Deployable - App successfully deploys to the HoloLens with no issues) Re-organize my git repository to make it cleaner and smaller since many Unity files are unnecessary. Communicate with Victor to determine the best way to use git in our project.
  - Victor: Work on getting a deployable to Hololens application. Connect the Hololens App to the services using socket.io. Fix issues with socket connections. Communicate with 3D designer about what types of models are needed for the deployable app.
- Services Team - Chandler and Jason:
  - Chandler: Continue working on Save User Location service, continue researching Meraki API usage and figure out how we can use it to more efficiently/accurately implement the services we want to deploy
  - Jason:
- Tracking Team - Chris:
  - Set router to use static bssids. Explore Tx power options with openwrt or ddwrt instead of firmware that came with the routers.
- Floater - Logan
  - Start working with Sandbox provided by cisco to play with Meraki. Meet with team and client about set up of API testbed. Float.

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## Individual Contributions

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<b>Team Member</b>	<b>Contribution</b>	<b>Weekly Hours</b>	<b>Total Hours</b>
Logan Highland	Researched more into Meraki APIs	2	18
Chandler Chockalingam	Looked into tutorials for using Meraki API, resumed working on Save User Location service, worked on slides for PIRM 1	5	26
Christopher Stapler	Worked on changes to	5	27
Josua Gonzales-Neal	Imported 3D assets from co-founder into the project. Deployed the application to HoloLens emulator. Continue to find new resources for our project and going through Unity tutorials.	4	20
Jason Ramirez	Meeting with Cisco, updated multilateration estimator to have better accuracy, updated simulation to work with brand new backend architecture, bug fixes in services created last sprint	10	31
Victor Da Silva	Tested usability of several map apis. Debugged issues with Mapbox API. Imported 3D assets into Unity and deployed them to HoloLens. Worked on HoloLens side of websocket functionality.	4	21