

Milestone 3 Evaluation

FIT AR Navigation App (FITARNA)

Vincenzo Barager vbarager2022@my.fit.edu

Dathan Dixon ddixon2022@my.fit.edu

Jacob Hall-Burns jhallburns2021@my.fit.edu

Ethan Wadley ewadley2022@my.fit.edu

Faculty Advisor: Eraldo Ribeiro (eribeiro@fit.edu)

Client: Dean of the Library, Jason Martin mmartin@fit.edu

Milestone 3 Tax Matrix:

Task	Completion	Dathan	Ethan	Jacob	Vincenzo	To-Do
1. Rescans of Floor 1	100%	40%	0%	0%	60%	Polishing up scans for Floor 1 (Patching missing areas etc.)
2. Finish scans of Floor 2	80%	40%	0%	0%	40%	Gathering more scans for our app
3. Finish Navigation Functionality for the app	90%	0%	50%	50%	0%	Finish fully implementing pathfinding
4. Pop-ups Floor 1	100%	20%	30%	30%	20%	N/A

Task Report:

- Task 1: For task 1, we rescanned the parts of floor 1 where our previous scans were insufficient. In unity, to connect scans there needs to be overlap between the scans to accurately connect them to how they appear in the real world. There were also important sections left out of previous scans. Our new scans are more complete and overlap. This allowed us to connect all the scans of floor 1 together leaving us with a completed floor 1 in our map.

- Task 2: For task 2 we took scans of Floor 2, generated area targets with them, and imported that into Unity. Then we pieced them together for functional AR capability. We weren't able to scan all of floor 2 yet so that is left to be done in milestone 4.
- Task 3: For task 3 we worked on navigation to work with our scans and accurately display location.
- Task 4: For task 4, we wrote, designed, and implemented the floor 1 pop-ups in Unity. To do this we created an object in unity and gave it three children: A background, title, and content. We made the background a transparent maroon square and adjusted it to match the height of the content. We then would fill in the title and content with the pop-up information and set the font, color, and other settings to look better visually. Once we had a good template we then copied and pasted this pop-up for all of the other pop-up locations on the first floor and adjusted the position, title, content, and height of the background for each one.

Individual Report:

- Vincenzo Barager: For my contribution to the 3rd milestone I used the iPhone 17's LiDar capabilities to take the scans we have, generated area targets with them, and then ported them over to unity. Once in unity, I aligned them to form a full map for the app to work with. I also wrote the content for the pop-ups, designed them, and incorporated them into unity.
- Dathan Dixon: For my contribution to the 3rd milestone, I used my phone's LiDar camera in order to add to the scans we are using to generate our map for the navigation section to use.
- Ethan Wadley: For my contribution I used the model created in Unity to assist in making navigation functional as well as checking over the navigational code.
- Jacob Hall-Burns: For my contribution I wrote code in order to traverse the map made by Vincenzo and Dathan and accurately navigate users through the library.

Task Proposal:

- Task 1: Finalize floor 2 scans and incorporate them into Unity. If we have time then we would also like to begin work on the floor 3 scans as well.
- Task 2: Fully implement pop-ups for the first and second floor.
- Task 3: Get navigation working properly and begin implementing the tour mode and the navigation mode.

Client Meeting Date:

Monday, September 22nd, 2025, 15:30

Client Feedback:

- Task 1:
- Task 2:
- Task 3:

Faculty Advisor Meeting Date:

November—, 2025

Faculty Advisor Feedback:

Team seems to be making good progress.