

Testing Document: "Augmented Reality Based College Campus Indoor Navigation - Android Testing"

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Objective:

- To validate the functionality of the Android implementation of the "Indoor Navigation using Augmented Reality" project.
- To ensure the correct display of navigation directional lines after resolving an issue with wall scaling.

Testing Steps:

Initial Setup:

- Verify that the development environment is set up correctly.
- Connect the Android device to Unity for wireless debugging.

Build and Deployment:

- Build the Android version of the project in Unity.
- Deploy the project to the Android device.

Start and Target Selection:

- Open the application on the Android device.
- Check for the starting point.
- Check for the target point.

Navigation Testing:

- Verify that the pathfinding algorithm calculates a valid route.
- Confirm that the directional lines guide the user along the correct path.

Testing Minimap:

- Check the minimap for the display of blips representing the user's location and the target location.

Issue: Wall Scaling Problem:

- we noticed that the walls are not properly scaled, leading to inaccuracies in navigation directional lines.

Resolution: Wall Scaling Adjustment:

- We accessed the Unity project and adjusted the scaling of the 3D wall models to match the real-world dimensions of the indoor environment.
- Rebuild and redeploy the Android application to the device.

Re-Testing:

- Repeated the steps 3 to 5 several times to ensure that the directional lines now accurately represent the navigation path.

Conclusion:

- The Android implementation of the "Indoor Navigation using Augmented Reality" project has been successfully tested.
- The issue related to wall scaling has been resolved, resulting in accurate navigation directional lines.