

AI IN HEALTH AND WELLNESS

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TEAM-HumAlne Solutions



TOPIC- ... **Hospital Navigation System**





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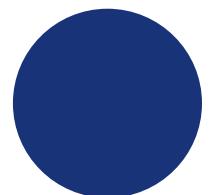




INTRODUCTION



Navigating large hospital environments presents significant challenges due to unclear signage, language barriers, and physical disabilities. Patients and visitors often struggle to locate critical areas, leading to stress and delays. Staff members are frequently interrupted for directions, affecting efficiency. An AI and AR-powered navigation system could address these issues effectively.





OBJECTIVE

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To create a smart AI/AR navigation system that:

- Empowers users with real-time, visual guidance through augmented reality overlays.
- Improves efficiency by calculating the shortest or most convenient routes using AI.
- Enhances accessibility by catering to diverse user needs, including language translation and voice commands.
- Scales effectively , offering solutions for broader public spaces like malls or airports in the future.





METHODOLOGY



Step 1: Problem Analysis and Research

Identify challenges in navigating large public spaces like hospitals or campuses.

Analyze real-world navigation issues faced by users (e.g., visitors, students, patients).

Study existing AI and AR navigation systems to identify their strengths and limitations.

Research pathfinding algorithms .



Step 2: Conceptual Design

Choosing and using tools like Unity with AR Foundation, ARCore, ARKit, and AI algorithms for AR and AI development.
Select a location (e.g., a small section of a campus or a hospital floor) for the model

Decide on points of interest (rooms, departments, etc.) and pathways.



CHALLENGES

Due to the lack of penetration of GPS signals in buildings, subterranean locales, and dense urban environments, indoor navigation solutions typically make use of ubiquitous wireless signals (e.g., WiFi) and sensors in mobile embedded systems to perform tracking and localization.





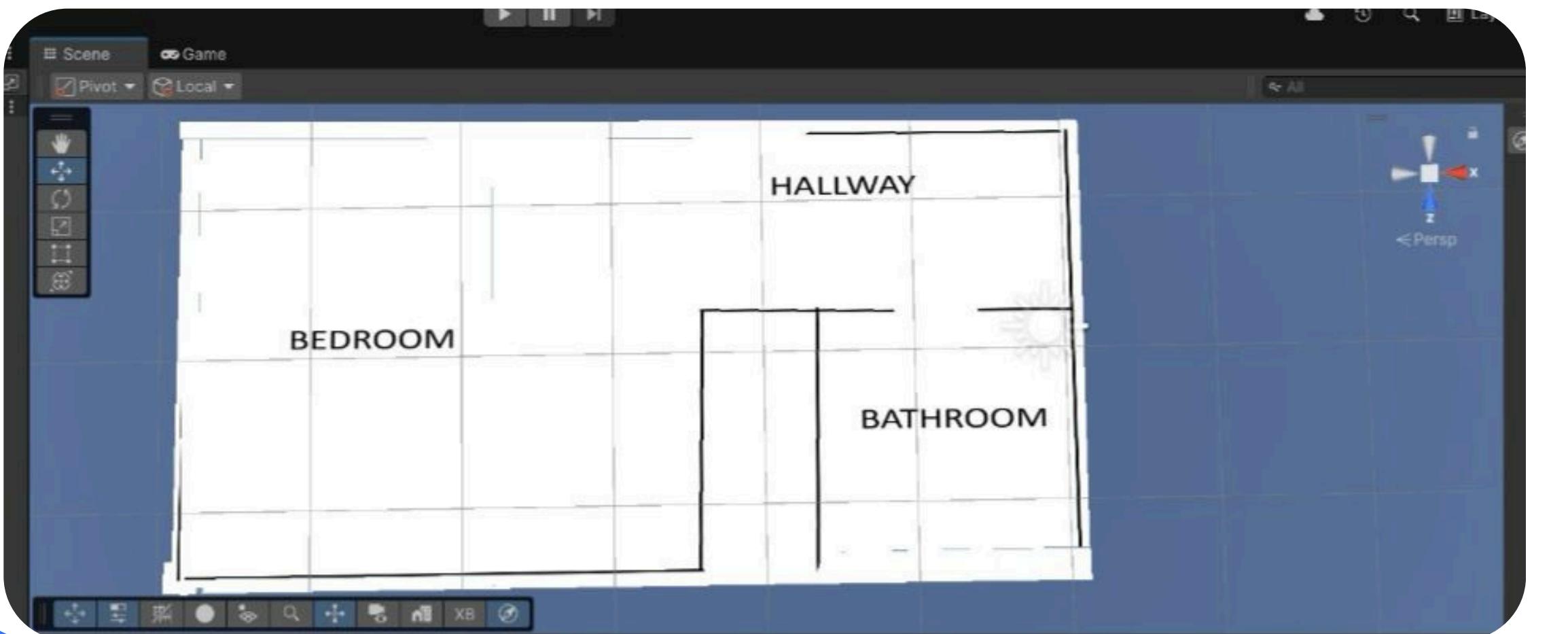
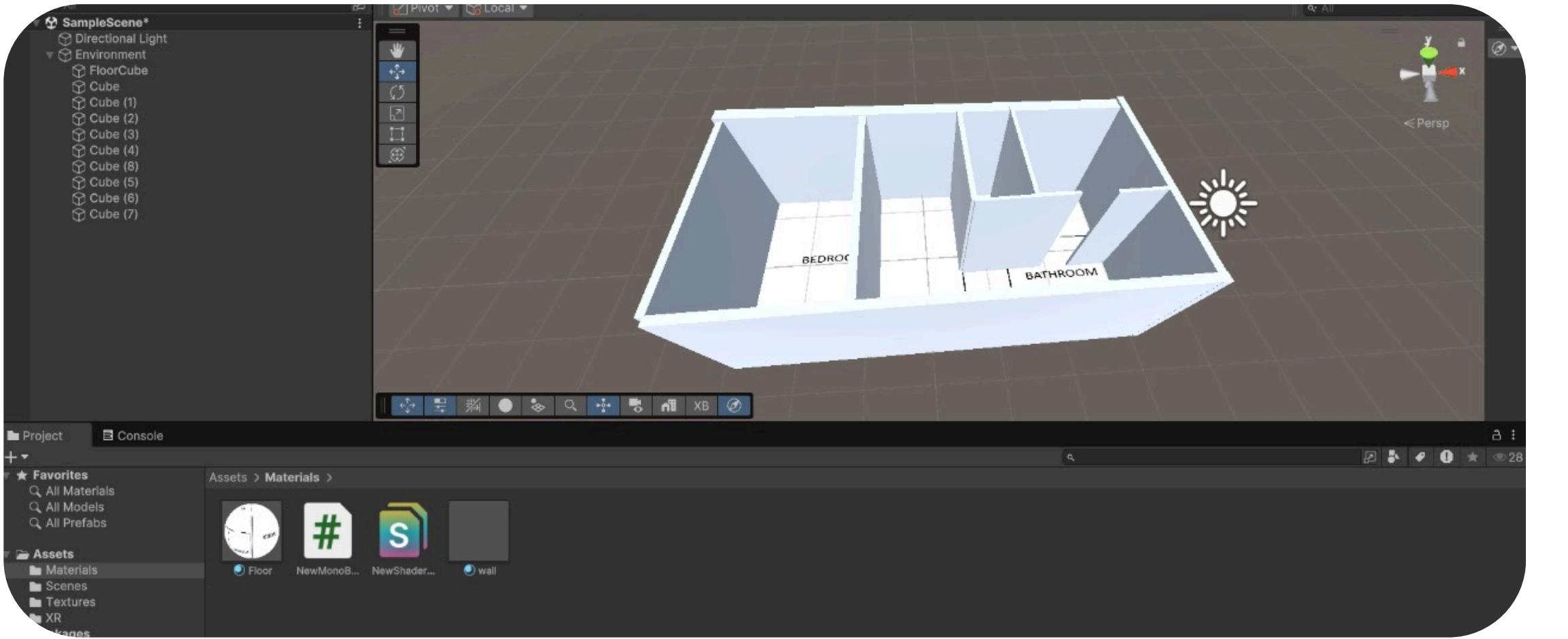
PROGRESS-

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We are currently developing a navigation model on a small scale. A virtual environment is being created using Unity to simulate and test the navigation system.

Overnight, we plan to complete an overview of the navigation system by creating a simulation with an expanded range and coverage. This will serve as an initial prototype for further development.





PROGRESS-

Thank You.

For Your Attention