THEIA Team 7
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THEIA Project Final Presentation

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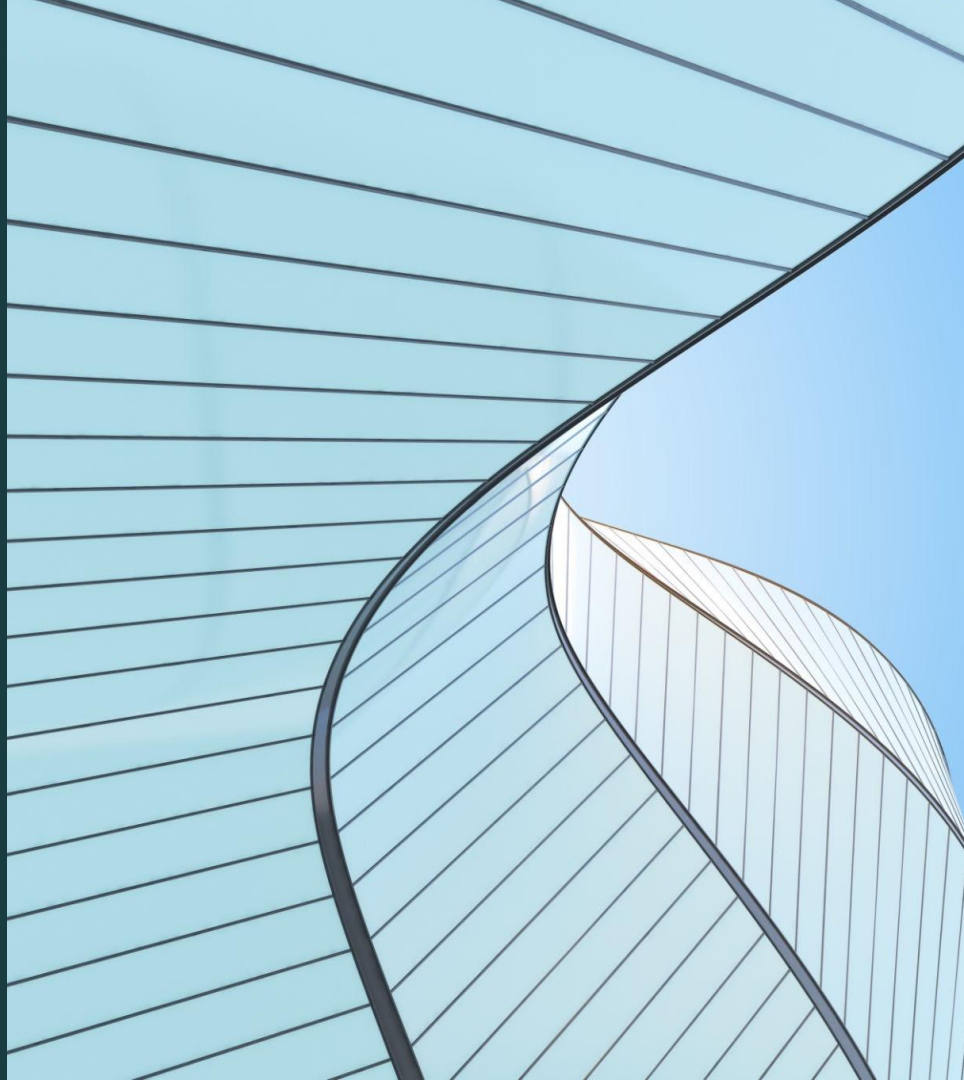

Presentation Overview

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Summary of Functionality

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Why Theia?

Summary of Prototype Features

NAVIGATION WITH CONFIDENCE

Precise Indoor Guidance

- Turn-by-turn voice instructions (e.g., "Walk 10 steps, turn left")
- Haptic vibration signals the exact moment to turn

Builds Independence and Accuracy

- Eliminates guesswork and reliance on memory or trial and error.
- Delivers room-level or floor-level precision, not just building-level directions.

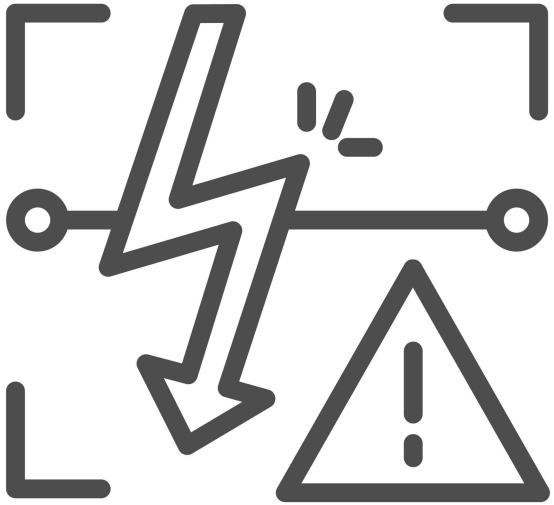
SEE HAZARDS BEFORE YOU REACH THEM

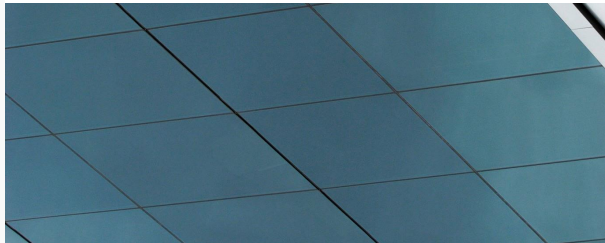
Proactive Safety Scanning

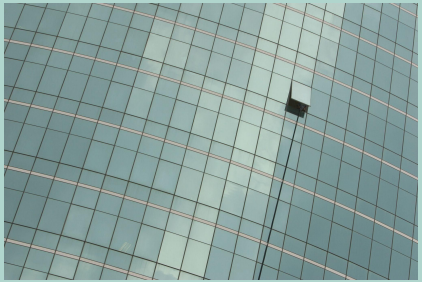
- Leverages the phone's camera and AR-powered scanning to continuously monitor the path ahead.
- Detects both stationary and unexpected obstacles (e.g., misplaced chairs, open cabinets).

Immediate, Multi-Sensory Alerts

- Issues an instant, clear auditory warning.
- Pairs the alert with a distinctive phone vibration for immediate physical awareness.







YOUR SAFETY NET, ALWAYS ON

One-Tap Emergency Assist

- Activated by a simple, quick double-tap on the lower screen—easy to find and use under stress.
- Automatically calls a pre-set emergency contact and shares precise, real-time indoor location data.

Reliable Fallback Protection

- Drop and fall detection ensures the alert is sent even if the phone is dislodged during an emergency.
- Provides continuous audible reassurance and confirmation vibrations while connecting.

Feature Demonstration

Discussion of Creep Rate

From the WRS, these were the main functional requirements of the Theia project:

- Instructions are short and concise
- The app should notify the user of environmental hazards
- The app tracks determines location based on AR posters
- The camera should constantly scan the environment
- The GUI should be minimalistic and straightforward

Overall, the project's feature creep was within expectations. The project's evolution came mainly from the further refinement of requirements such as:

- The GUI should cater to both the users and caretakers, especially allowing caretakers to customize the app
- Instructions that are relayed to the user should be prioritized based on importance (imminent collisions before a new navigation order)

Now, let's get into why you should choose THEIA.

THE OPPORTUNITY

THEIA provides state of the art functionalities for people with visual impairments.

Object Detection

THEIA will help users detect unexpected obstacles that other methods fail to feel. With an auditory alert, alongside a vibration, THEIA will redirect the user on how to avoid the obstacle.

Drop Detection

In the case a user ever drops their phone, THEIA will detect the impact and prompt the user with vibrations. If no input is found within 5 seconds, THEIA will constantly vibrate and play sounds, ensuring the user will find their device.

Real-time emergency service

If a user every feels lost, stressed, uncomfortable, or in danger, THEIA allows for real users to quickly contact emergency services or an emergency contact. This is initiated with two taps on the bottom of a users device.

Thank you