## horizontal line



MaxNav

Domestic/Indoor Navigation System.

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# Problem Statement

Lot of navigation apps like Google Maps are available for navigation but none of them support navigation inside a building by taking into account rooms, corridors and floors. The challenge is to create an app that would show a navigation path in the real world on your mobile device screen. This technology is beneficial to everyday citizens because it allows one to accurately navigate to a specific location in a building they have never been to before, such as government offices,a classroom in a campus, malls/retail stores to show customers the items they would want to purchase etc.

# Ideas Implemented

1. Implementing foot steps tracking integrated with a directional compass.
2. Using Bluetooth transmitters in the building premises. The signal strength intensity mapping adds another input factor to the overall building data.
3. Creating a virtual map using the fragments of data.
4. Providing Augmented Reality based visual guidance for internal/domestic navigation.

# Solution

Our application can accurately measure and navigate the location inside a building. It is a web mapping service. The additional acquisitions of a geospatial data visualization company , measurements of objects and its ability to find the shortest route to a place including the timings and the no.of steps we have walked make this project unique.

The UI shows a map and a 3D view of the specified location inside the building offering better and accurate features. It also provides a small description of the place which automatically pops on the screen on the app as we walk. This will help the user helping them to navigate what, when and where they need to go and thereby improving the curiosity of the user.

The concept can be implemented and applied in various fields within a short period of time. It can also be used in forests or war zones to exactly locate a place or a path which was lost. The location can be retracted using this app.

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## Functional Applications

The app automatically gets updated after reaching the specified location. It can be implemented in metro stations,subways and high storey buildings also transmits alert signals in case of emergency. In case at night time if a girl is walking in the dark she should be able to find the location at a subway or metro park and in case of emergency if she feels that she is not feeling secure or if she is in trouble,she can press the alert button which automatically sends her location to the nearby police who can track her location through phone thereby enabling them to track her.

# Key Features

## Accuracy

Usage of multiple factors provide more degree of accuracy.

## User Friendly

The App’s UI with integrated Augmented Reality feature, makes the navigation more user-friendly than conventional indoor navigation systems.