NAME: Navigator For Visually Impaired Person

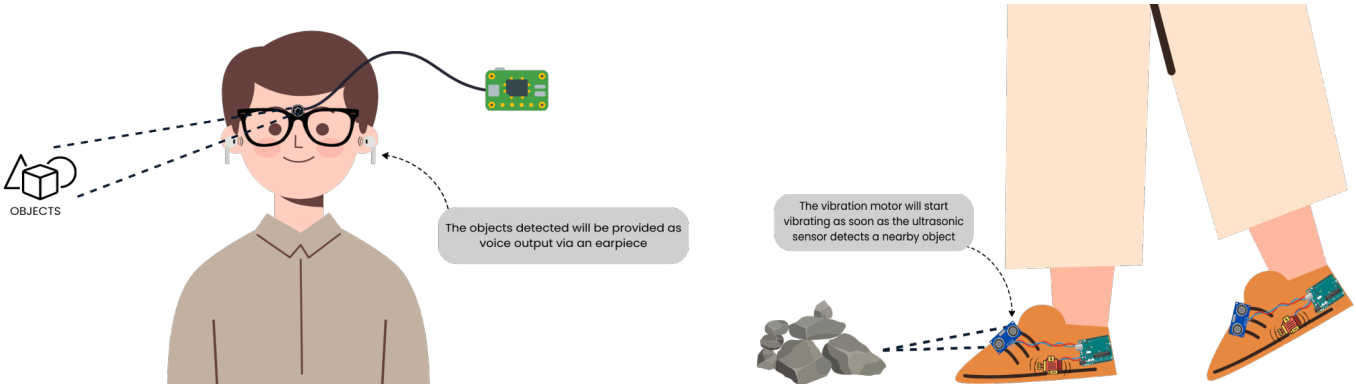
AIM: Around 12 million Indians are visually impaired due to untreated refractive error, according to the WHO. Many visually impaired persons come from deprived backgrounds and reside in tier 4 cities and rural areas without access to spectacles. However, they are unaware that this is curable. This navigation system aims to help blind people to navigate around safely. To find the obstacle links, the user does not need to move the white cane around. As a result, a person can go around without using a cane and continuously hear from speakers about potential hazards.

The primary goal of a navigator for visually impaired individuals is to increase their mobility and independence, allowing them to travel more freely and confidently in their daily lives. By providing guidance and support, a navigator can help individuals with visual impairments to overcome barriers and access new opportunities, such as traveling to new places or exploring unfamiliar environments.

SCOPE: The scope of the navigator for a visually impaired project would typically involve developing a device or application that can help visually impaired individuals navigate their surroundings more easily and safely. This could include features such as:

1. GPS and mapping technology: To track the user's location and provide turn-by-turn directions to their destination, the device would need to use GPS.
2. Voice and audio cues: the device would need to provide audio cues to guide the user along their route, such as "turn left in 50 meters".
3. Obstacle detection: The device may have sensors that identify obstructions in the user's route, such as walls, steps, or ground-level items, and issue alerts or directions to avoid them.
4. Object recognition: The device may make use of computer vision technology to identify landmarks, buildings, signs, or other items in the user's environment and deliver details about them via audio cues.
5. Integration with other devices: the device or application could be designed to work with other devices that visually impaired individuals may use, such as braille readers, hearing aids, or smartphones.

ILLUSTRATION:



APPLICATIONS: It can be used for providing a set of useful features such as,

- Light Detection
- Color Detection
- Object Recognition
- Banknote Recognition
- Optical Character Recognition

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