PROJECT PHASE - I

REVIEW - I

REPORT

ON

SMART WALKING BLIND STICK

Submitted
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ABSTRACT

The smart walking blind stick with a dog's repellent feature is a revolutionary assistive technology designed to improve the mobility and safety of visually impaired individuals. A recent report by the World Health Organization (WHO) highlighted the alarming number of deaths caused by these obstacles for the visually impaired. The device proposed here is equipped with an Arduino microcontroller board, ultrasonic sensors, and a sound producing device to repel dogs and prevent them from attacking the blind person. The person feels of attacking dogs, and the person will press the button to activate sound device emits high-frequency sounds range between 20,000 Hz to 25,000 Hz that are unpleasant to dogs, The sound would not harm the dog, but it would make them uncomfortable and encourage them to flee from the area. The IoT Smart Stick for the Blind using Arduino is a promising solution that utilizes modern technology and IoT capabilities to greatly enhance the mobility and independence of visually impaired individuals. The device also includes other features, such as obstacle detection, real-time navigation guidance, and GPS tracking. By addressing the unique challenges faced by the visually impaired, this device has the potential to significantly improve their quality of life, enhance the safety and independence of blind individuals when navigating public spaces.

Keywords: Arduino microcontroller board, ultrasonic sensors, dog repellent, high-frequency sounds, obstacle detection, GPS tracking, mobility.