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IoT Based Smart Blind Stick

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Abstract: *Optic failure can be named as a visual shortcoming and optic misfortune. Moreover, this hindrance makes numerous challenges in their daily exercises, such as walking, socializing, reading, socializing, and driving. This research aims to implement an IoT stick that will view the image of opportunity, autonomy, and certainty. The proposed smart stick is planned with an impediment identification module, a global positioning system (GPS), pit and flight of stairs detection, water detection, and a global system for mobile communication (GSM) to perform their daily activities quickly. The impediment identification module utilizes an ultrasonic sensor alongside a vibrator sensor to distinguish the obstructions that insinuate recognizing the obstacles and identifying the obstructions pattern. Vibrator sensor is used for the accident identification. In this Project ESP32 is used for person monitoring. A Node MCU is used to advise the weakened people about the barriers and sends notifications using an earphone and a buzzer. The current location of the blind person is located using Wi-Fi Module. The stick activates an alert system in case of loss. Several test cases prove that the functionalities introduced with the stick are performing correctly..*

Keywords: Blind stick

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