International Journal of Computer Science and Engineering (IJCSE) ISSN(P): 2278-9960; ISSN(E): 2278-9979 Vol. 8, Issue 1, Dec - Jan 2019; 1-12 © IASET

International Academy of Science,
Engineering and Technology
Connecting Researchers; Nurturing Innovations

SONIC SENSEINTERFACING HC04 SONIC SENSOR WITH PIC16F452 TO ASSIST VISUALLY DISABLED PERSON NAVIGATE THROUGH AN OBSTACLE COURSE.

Sneha Kale¹ & Omkarkachare²

¹Research Scholar, Computer Science, California State University,

Sacramento, California, United States of America

²Research Scholar, Electronics and Electrical Engineering,

California State University, Sacramento, California, United States of America

ABSTRACT

This project is designed to guide a visually impaired person to walk and avoid bumping into obstacles. Low-cost ultrasonic rangefinders along with a microcontroller are used to measure the distance to obstacles and if they are close enough to provide feedback to the user in form of beeps or vibrations.

The project is made on a small single layer PCB. It is a portable project which is mounted on a metal plate such that it can be fixed on any belt type structure. The sensors are not mounted on the PCB but they are mounted in the front of the plate and connected to the main board using wires. It's designed exactly like a mobile carrying case used on belts.

KEYWORDS: Visually Impaired Person, Interfacing with Microcontroller, Microcontroller and Echo

Article History

Received: 02 Jan 2019 | Revised: 08 Jan 2019 | Accepted: 12 Jan 2019

<u>www.iaset.us</u> editor@iaset.us