

Smart Blind Stick

Prof. Ayub Mulani¹, Aakansha Sudhakar Ghadge², Sanyogi Anil Kadam³,

Brijesh Ramkumar Kushwaha⁴, Pratima Satish Pisal⁵

Guide, Department of Electronic and Telecommunication Engineering¹

Students, Department of Electronic and Telecommunication Engineering^{2,3,4,5}

Keystone School of Engineering, Pune, Maharashtra, India

aakanshag2810@gmail.com, sanyogikadam27@gmail.com, b.r.kushwaha8796@gmail.com, p.s.pisal9850@gmail.com

Abstract: *The project describes ultrasonic blind walking stick with the use of Arduino uno. According to World Health Organization (WHO), 30 million people are permanently blind and 2.85 million people with vision impairment. If you notice them, you can very well know about it they can't walk without the help of other. One has to ask guidance to reach their destination. They have to face more struggles in their life daily life. Using this blind stick, a person can walk more confidently. This stick detects the object in front of the person and give response to the user either by vibrating or through command. So, the person can walk without any fear. This device will be best solution to overcome their difficulties. We are going to upgrade the project by increasing its application. In this project, we are going to use one ultrasonic sensors. So now, this smart stick will have an ultrasonic sensor to sense distance from any obstacle.*

Keywords: Arduino UNO, Ultrasonic Temperature Sensor, Smoke Detector

REFERENCES

- [1]. Kunja Bihari Swain, Rakesh Kumr Patnaik, Suchandra Pal, Raja Rajeswari, Aparna Mishra and Charusmita Dash, Arduino Based Automated STICK GUIDE for a Visually Impaired Person, 2017.
- [2]. Md. Mostafa Kamal, Abu Ibne Bayazid, Muhammad Sheikh Sadi, Md. Milon Islam, and Nazmul Hasan, Towards Developing Walking Assistants for the Visually Impaired People, 2017
- [3]. Akshay Salil Arora, Vishakha Gaikwad, Blind Aid Stick: Hurdle Recognition, Simulated Perception, Android Integrated Voice Based Cooperation via GPS Along With Panic Alert System, 2017
- [4]. World Health Organization, "Visual Impairment and Blindness," Fact sheet N "282" Oct 2014.
- [5]. National Disability Policy: A Progress Report October 2014, National Council on Disability, Oct 2014.
- [6]. Bhatlawande, Shripad S., Jayant Mukhopadhyay, and Manjunatha Mahadev. "Ultrasonic spectacles and waist-belt for visually impaired and blind person." Communications (NCC), National Conference on. IEEE, 2012.
- [7]. R. Radhika, P.G. Pai, S. Rakshitha and R. Srinath "Implementation of Smart Stick for Obstacle Detection and Navigation." International Journal of Latest Research in Engineering and Technology, vol. 2, number 5, pp. 45-50, 2016.
- [8]. Jismi Johnson, Nikhil Rajan P, Nivya M Thomas, Sijo "Smart Stick for Blind" International Journal of Engineering Science Invention Research & Development; Vol. III, Issue IX, March 2017. Department of Computer Science, Jyothi Engineering College, Kerala, India.
- [9]. G. Prashanthi "Sensor assisted Stick for Blind People" Transactions on Engineering and Sciences, Vol 3, Issue January 2016.