

PROTOTYPE OF HEADBAND NAVIGATION FOR THE BLIND USING MULTISENSOR DISTANCE MEASUREMENT

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ABSTRACT

Blind is a term used to describe someone who has damage to the sense of sight. Blind people have a disability to see, but they can still carry out activities, although they must be assisted with tools to simplify and lighten their activities. In this study, the authors developed a blind navigation aid for blind people when walking and to carry out daily activities. This headband serves to notify and also detect objects or obstacles that are on the left, front, and right. The test results on this tool are as expected and the ultrasonic sensor is working well. Based on the testing of the ultrasonic sensor, it is known that the accuracy of the left ultrasonic sensor is 99.88% and the measurement precision is 108 ± 16.76 . The front ultrasonic sensor has an accuracy rate of 99.88% and a measurement precision of 99.85 ± 1.8 . The right ultrasonic sensor has an accuracy rate of 99.84% and a measurement precision of 99.77 ± 0.96 .

Keywords: *Blind, Headband, Ultrasonic Sensor.*