



PROJECT REPORT
PROTOTYPING OF ULTRASONIC BLIND STICK
USING WEMOS D1 MINI

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APPROVAL AND RATIFICATION PAGE



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ABSTRACT

Eyes are senses that are used to see conditions or circumstances, so humans can know the objects they see. People whose eyes cannot see are called blind, there are still many of them who still use sticks manually without being equipped with sensors or modules to facilitate their activities which are used as the 3rd eye, therefore this project utilizes existing sensors, namely ultrasonic sensors, buzzers and LEDs and of course sticks to help with their activities.

First of all, this project designs a device using existing sensors, such as ultrasonic sensors. Second, connect the sensor, buzzer and LED using Wemos D1 Mini as a microcontroller. After that, the tool that has been made is installed on a 3 cm diameter PVC pipe. But first do the testing of the stick.

The end result, the sensor does not work as expected. The ultrasonic sensor only detects from an angle of 0 to 15 degrees with a distance range of 3cm - 400cm, and cannot detect when passing through a sewer but can go down stairs. Testing is carried out for approximately 4 weeks starting from tool design to tool testing.

Keyword: IoT, Blind_Stick, Wemos_Mini.

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