

ROBOT MOBILE PENGHINDAR HALANGAN
(AVOIDER MOBILE ROBOT) BERBASIS ATMEGA328

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ABSTRACT

The ability to avoid obstacles can be given to a robot in various ways, one of which is by using ultrasonic sensors. The use of ultrasonic sensor as obstacle detection can be done by detecting the presence or absence of the reflection of the ultrasonic echo. Robot designed is a mobile robot that has the ability to avoid obstacles using ultrasonic sensors where the barrier will be detected by an ultrasonic sensor driven by the servo, then signal whether or not the obstacle will be input on the microcontroller ATmega328. The signal is processed, which then ordered the two DC motors to move to avoid obstacles. The test results indicate that the mobile robot obstacle avoidance that has been designed to function well in accordance with the designs.

Keywords: Mobile Robot, obstacle avoidance, Ultrasonic Sensors, Servo Motor, Microcontroller ATmega328