

**RANCANG BANGUN SENSOR LEVEL VOLUME OLI MENGGUNAKAN
WEMOS D1 MINI BERBASIS TELEMETRI** (*Design of Oil Volume Level
Sensor Using Telemetry Based Wemos Mini*)
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ABSTRACT

This study aims to determine the level of oil level in the vehicle engine in order to prevent engine damage due to running out of oil in the vehicle engine by making a tool and using a microcontroller in the form of Arduino Wemos mini. The method used in this research is the design of the tool by making a design that uses Arduino Wemos as a context for reading the design results. In the study of reading the oil level, the researchers used an ultrasonic sensor (HCSR-04) then the results of the ultrasonic sensor readings were sent to Arduino Wemos to match the data from the ultrasonic sensor input with the programming data that had been pre-programmed in Arduino IDE. After the data matches, then mini wemos sends the oil level reading data to the user's cellphone via the IoT sensor that is in the mini wemos by using wifi as a network (signal). The results of the design can read the level of oil in the design, and send data in the form of warnings and notifications to the user. The notification is in the form of a message sent to the telegram containing full oil, reduced oil, and running out of oil.

Kata Kunci : *Arduino wemos mini, Vehicle oil, Ultrasonic Sensor HCSR-04, Telemetry IoT System, Telegram*