

ABSTRACT

DESIGN AND DEVELOPMENT OF BLYNK-BASED LIGHT AND WIPER CONTROL MODULES IN THE MIDDLE CLASS SEGMENT

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Many cases of accidents occur due to safety factors in driving, especially in the rainy season because it can interfere with the driver's view while driving. Traffic accidents caused by the rainy season occur a lot in middle-segment cars because they have less security facilities. Based on these problems, it needs to be developed and aims to reduce the chances of accidents and can help with disabilities in driving by building automatic windshield wipers and car headlight modules automatically using LDR sensors, rain sensors, and dht11 sensors. The method used in this study is the black box method, which is done directly to test the tool. The built-in tool can send monitoring to detect the ambient temperature and assist in determining whether raindrops or drizzle are present. This study was carried out with simulations to obtain sensor values and implementation testing. The results of this study indicate that the results of observations made through questionnaires on the safety module in driving meet the usability criteria with a result of 66%, or are categorized as "good."

Keywords: IoT, LDR sensor, rain sensor, DHT11, ESP8266-01