

# **DESIGN OF AUTOMATIC WIPER AND WASHER USING RAIN SENSORS IN CLASSIC VEHICLES BASED ON IOT**

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## **ABSTRACT**

*The wiper work system is one of the parts of the vehicle that functions to sweep away water, snow, mud, oil and various items that can stick to the windshield of the vehicle so that the driver's view is not obstructed while driving. Therefore, wipers play an important role in supporting driving safety. Nonetheless, the conventional wiper frame is manufacture in most vehicles today is still completely physically controlled by the driver to change the wiper speed depending on the intensity of the water on the windscreen. There are 3 wiper operations consisting of low, intermittent, and high. In this Final Project what will be done is to make a wiper work system that is ready to work automatically and adjusts the operating conditions on the vehicle glass. The wiper system depends on the information generated by the water sensor, the intensity of the amount of water hitting the driver's glass. Information that has been prepared by Arduino is sent from the actuator to activate the wiper engine so that the wiper frame can work according to the information listed. This automatic wiper system is also equipped with changes to select automatic mode or manual mode, depending on the driver's needs. In testing all systems can work properly, in manual mode all buttons function properly and when in automatic mode the rain sensor can work as it should, when the rain sensor detects a value of 700-900 the wiper moves slowly, when it detects a value of 500-900 the wiper moves medium, when it detects 200-300 wipers move quickly. And the dust sensor also works well when it detects dust, the washer pump motor sprays water and the wipers move 3 times.*

**Keywords:** *Arduino, IoT, Wiper, Washer*