ABSTRACT

Cars are one of the transportation tools in the world. Cars are used by the community to be one of the supporting activities in people's daily activities and as a means of transportation. One such support is car care that must be considered and seen by car owners. A treatment that is often done is washing the car. One of the advantages when washing a car is the body and paint of the car that looks clean and durable, and removes any dirt that sticks to the body of the car. looking at the conditions above in this study, an automatic car washes would be built without having to wait a long time. the tool that will be built in this research is a rectangular prototype like a car wash, using some electronic equipment and components. This automatic car wash system is designed with infrared sensors and water flow sensors. water flow sensor is a sensor that can measure water flow by combining with a dc motor pump and an infrared sensor to detect the car that will enter the washing stage. From the results of experiments conducted, it can be concluded that the Infrared Sensor and Waterflow can be designed as a Car Detector and Water Discharge Measurement in an Automatic Car Wash Design. with the test results that have been obtained. This can be seen in the Infrared Sensor detected from a distance of 0-175 mm or 17.5 cm the sensor can detect something. While at a distance of 180-200 mm the sensor cannot detect anything. Yag obtained on the Waterflow Sensor obtained an accuracy rate of 96.554 and an error rate of 3.446% With this tool, it is expected that later, car washing processes can be done automatically by watering soap and soap, the tools built can provide cleanliness to the car.

Keywords: Arduino-Uno, waterflow, dc motor pump, infrared