ABSTRACT

Pt. Astra Honda motorcycle has many employees with high mobility, with a production number that reaches 3200 units of motorcycles every day, employees enter and leave the company using their personal vehicles. Pt. Astra Honda motorbike still uses a manual parking system where there is a drawback, namely the difficulty of obtaining information about the available parking space.

The Internet Of Things-based automatic parking bar system is expected to solve this problem, where the automatic parking door bar uses RFID Reader and Tags as access to the parking lot integrated with infrared sensors to detect available parking slots and the NodeMCU ESP8266 module as a processor and sender of parking slot data available to be displayed on the LCD screen in front of the Internet Of Things-based automatic parking door bar.

In this final project, voltage measurements are carried out with a multimeter to find out the voltage of the infrared sensor. Where, voltages below 128 mV are indicated by obstructions which are interpreted as vehicles parking, and voltages above 128 mV are indicated by the absence of obstacles that indicate the parking slot is available. Then testing the tool is carried out to be able to display information correctly according to the sensor detection and displayed on the LCD screen. The results of 25 experiments, getting a percentage of success of 100%. That way the Internet of Things-based automatic parking bar system can be said to be successful because it can provide valid information in real time to employees who will access the parking lot provided by the company.

***Keywords**: Parkir System , Sensor, Juno, Arduino Uno*