ABSTRACT

Nowadays with the increasing number of transportation, ground transportation especially car made parking spaces to be narrower. With the current car parking system, many drivers still have difficulty in finding parking location. This is because they cannot directly determine the location of the parking lot is empty and does not know if the parking area is full or not. So that, they will spend a lot of time and energy only to find the location of parking that can be used.

Therefore , we need a parking system design that can treat the condition. Each parking slot will be installed 1 piece infrared sensor to determine the condition of each parking slot is connected to a microcontroller then proceeds ATMega8535 detection sensor will be displayed on the LCD that is mounted on the gates of the parking area . Then , through the LCD motorist was told to get to the parking slots that have been provided .

In this final project conducted several experiments. By using a multimeter to measure the voltage from the sensor then outputs a low 6.6 mV which indicates the condition of the vehicle and did not detect high output 3.295 V to detect the condition of the vehicle . Later , conducted an experiment to test the tool can display the correct information in accordance with the results of detection by sensor displayed by the LCD . In some trials , the percentage of success in the tool displays results on LCD sensor detection is 100 % . Then , testing the tool as much as 8 times the actual parking lot . Of some of these experiments , sensors successfully detecting the car 4 times and not be able to detect cars as much as 4 times , so that the percentage of success of the sensors used in the detection of the car is 50 % . It can be concluded that the successful tool designed to provide appropriate information in accordance with the results of the detection sensor , but the sensor is used less good at doing the detection of the car .

Keyword: ATMmega8535, Infrared, LCD