## ABSTRACT

## Faris Farhan Abdullah 42116668 DESIGN OF THE ARDUINO MEGA-BASED INTELLIGENT PARKING MANAGEMENT SYSTEM

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Keywords: Parking, Servo Motor, Arduino, Infrared, 7 Segment Display

(x + 61 + Attachment)

This final task covers the design and realization of an Arduino Mega-based intelligent parking management system. The system requires several components such as Mega Arduino microcontroller, infrared Sensor, Servo Motor, 7 Segment Display, LED, and several other supporting components. The design and realization of the Arduino Mega-based intelligent parking management system comes from the results of the experiment, while advocates of writing the final task are obtained from several sources such as books and the Internet. The design of this Arduino Mega-based Intelligent parking Management system uses an infrared Sensor as an input to deuse the car. Servo Motors as the output of the entrance and exit cross drives. 7 Segment Display as output to provide information on the amount of availability of parking land. LEDS as an indicator output stating the parking slots are empty and have been filled. Based on the results of the experiment conducted, design of the Arduino Megabased intelligent parking manageability to detect availability of this parking lot works pretty well. The response from the infrared Sensor to the Arduino Mega went well and was forwarded to the 7 Segment Display as information on the availability of the number of parking lots and Servo motors as drivers for the entrance and exit. While the LEDS will die when the parking slots have been filled. At the writing of this final assignment, this Arduino Mega-based intelligent parking Management system design only operates for 4-wheel vehicle types and only loads for 7 cars.