

**DESIGNING AN AUTOMATIC ACCIDENT AVOIDING SYSTEM FOR
AUTOMATED VEHICLES**

By

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

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ABSTRACT

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The main goal of this thesis is to detect obstacle around a modified RC Car, as a model of an automated vehicle, and to avoid a collision in many driving conditions. To control the car, an automated driving system is implemented in programming codes. With programming codes, the car will detect and will respond to obstacles depending on the conditions dynamically. Sensors will be added in the car to detect obstacle around. After detecting the obstacle, sensors will signal the arduino and the arduino will then activate the accident avoiding system depending on the obstacle movement. There are 4 kinds of accident avoiding system. To drive the car with newly added automatic driving system, additional 5V power supply with current of around 1A is needed to power 2 motors and 5 sensors. For a more responsive control, initial traditional input polling programming so that the work of one sensor is not blocked by the work of the other sensor, as all sensors are active in the same time.

Keywords: Designing Automatic System, Accident Avoiding, Avoiding System, Automated Vehicle, Automatic Accident Avoiding.



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DEDICATION

I dedicate this works to God, my family, and all of my friends.



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