FACULTY OF ELECTRICAL ENGINEERING

UNIVERSITI TEKNOLOGI MARA TERENGGANU

FINAL REPORT OF DIPLOMA PROJECT

HEAT DETECTOR ALARM SYSTEM

MARCH 2015

SHARIFAH NORZIAH BINTI SAYED MOHAMED ZAIN

SITI NORSHAHIRAH BINTI ABDULLAH

SITI NUR ANIS BINTI ZAKARIA

ROSMAWATI BINTI SHAFIE

"I declare that this report entitled "Heat Detector Alarm System" is the result of my own group research except as cited in the references. The report has not been accepted for any degree and is not concurrently submitted in candidature of any other degree."

Signature : _____

Name : SITI NORSHAHIRAH BINTI ABDULLAH

Date : MARCH 2015

Signature : _____

Name : SHARIFAH NORZIAH BT SAYED MOHAMED ZAIN

Date : MARCH 2015

Signature : _____

Name : SITI NUR ANIS BT ZAKARIA

Date : MARCH 2015

ACKNOWLEDGEMENT

Firstly, thanks to Allah S.W.t because with his blessing, we were able to complete our final year project. Although we had been through many obstacle and tension as well as happiness while doing this project, Allah always by our side and give us strength to finish our project.

Secondly, we wish very special thanks to our supervisor, Miss Rosmawati Bt Shafie that have guided us a lot in order to make this project working perfectly. Furthermore, she always gives the best opinion and tips to help us when we have any problem about our project.

Thirdly, we would like to give thanks to all the engineer assistance and all lectures of Faculty of Electrical Engineering that help us work out on our project. Thanks for the teaching and the method of handling the circuit of our project.

Lastly, we would like to dedicate our thanks and appreciate to our beloved parents, family and friends that have involve to the success of this project. Also not forget to our friend that always give their support and idea in completing this project and always help us when we encounter the problem with our project.

ABSTRACT

This project is designed to notify the building occupant to evacuate to the safer area as soon as fire detected which call the heat detector alarm system. This heat detector alarm system has three subsystems which are the detecting system, warning system and controlling system. The overall system of heat detector alarm system is controlled by the Arduino. The detection system operates as the fire detector. In this detection system, LM35 acts as the main sensor which is to detect the surrounding temperature. The sensor is placed at the control room in the building and the LCD used to display the current temperature and the current condition. The buzzer is in the warning system while the water sprinkler motor for the controlling system. Once the detected temperature above than $45^{O}C$, the buzzer and the LED act as the guide path to the safer area will on simultaneously while the water motor will active after ten second the LED and buzzer on.

TABLE OF CONTENTS