

FACULTY OF ELECTRICAL ENGINEERING  
UNIVERSITI TEKNOLOGI MARA TERENGGANU

FINAL REPORT OF DIPLOMA PROJECT

VEHICLE HAZARD DETECTOR

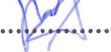
MARCH 2015

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## DECLARATION

“We declare that this report entitled “**VEHICLE HAZARD DETECTOR**” is the result of our own group research except as cited in the references. This report has not been accepted by any degree and concurrently has not been submitted in candidature of any other degree”.

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## ACKNOWLEDGEMENT

Alhamdulillah, thanks to God and His blessings, we have succeeded our Final Year Projects 2 for diploma courses in Electrical Engineering (Electronics / Telecommunication / Instrumentation / Computer). To start, we want to convey our appreciation to our supervisor, Madam Ummu Umairah binti Mohamad Ali, who have been advising us to do our best with all her patience, and also helped and supported us during the progression of Final Year Project 2. Plus, we are grateful to our parent and wished to thank them a lot for their support and motivations, especially in giving us the capacity to buy electric components. Not to forget, we also wish to convey our appreciation to our friends, lecturers and those who helped us throughout this project. Without them, and all of their motivation and support, we would not be able complete our project until the end of the exhibition.

## ABSTRACT

According to a study that been conducted on vehicle accident cases in Malaysia, there is a similarities between some of the cases which became a common problem for vehicle users, which is lack of awareness towards surrounding vehicles. Lack of awareness is a condition where the vehicle users are unable to see, or predict the movement of vehicles around them.. This common problem has resulted in many accident cases among vehicle users, especially accidents from behind and the sides of the vehicle. Thus, these accidents caused a lot of loss including loss of property and life. Based on the further investigation about these accidents, study shows that some vehicle users could not see some spots around their vehicle due to the support of the car roof blocking the sight of the vehicle user and the lack of sight radius of back mirror and rear mirrors. Thus, spots around the vehicle which the vehicle users cannot see are called blind spot. Then, if the problems regarding blind spots are not solved, the accident cases will continue to occur and more loss will occur on accident victims. Hence, this project has been created as a device that can cover vehicle users' sight limitations, thus, reduce the probability for an accident to occur. This project aids vehicle user to aware towards vehicles around them by using buzzer to inform the vehicle user upon detection. As a result, vehicle users will have no worries about the chances that they will plunged into an accident due to the reduced probability of getting into an accident. In the other hand, this project uses a sensor called ultrasonic sensor which is suitable to detect an object within its radius. When the sensor detects an object, it will ring the buzzer to alert the user. Then, the user will able to know that there is an object around the vehicle and able to apply a safety measure to avoid the chances of catching an accident. With this project, the ultrasonic sensor will help vehicle users by signaling them if there is an object surrounding their vehicle. The project circuit will be placed inside their vehicle and the sensor can be placed at the vehicle's blind spots. From a different perspective, this project has yet to be used again in Malaysia. Thus, by applying this project, country's name can be raised in the worldwide.

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