

**FACULTY OF ELECTRICAL ENGINEERING
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**FINAL REPORT:
FULLY AUTOMATED GRASSCUTTER**

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This report is submitted to the Faculty of Electrical Engineering,

Universiti Teknologi Mara (UiTM).

In partial fulfillment of the requirement for the award of Diploma in Electrical Engineering.

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Date:.....6/10/2016.....

ABSTRACT

The fully automated grass cutter is a fully automated grass cutting robotic vehicle that avoids obstacles and is capable of fully automated grass cutting without the need of any human interaction. The system uses 5V batteries to power the vehicle movement motors as well as the grass cutter motor. The grass cutter and vehicle motors are interfaced to an PIC16F877A that controls the working of all the motors. It is also interfaced to an ultrasonic sensor for object detection. The microcontroller moves the vehicle motors in forward direction in case no obstacle is detected. Once an obstacle detection, the ultrasonic sensor monitors it and the microcontroller thus turn the robotic vehicle to the right in order to avoid any damage to the object, human, animal or whatever it is. Microcontroller then turns the robotic as long as it gets clear of the object and then moves the grass cutter in forward direction again.

ACKNOWLEDGEMENT

In the name of Allah, the most compassionate, the most merciful. We thank Allah for giving opportunity for us to increase our knowledge in engineering field of study. We also thank Allah because during the progress of doing our Final Year Project II (FYP) , we did not committed with any accident or disease.

We also want to take this chance to thank our supervisor, Puan Nazirah Mohamat Kasim for giving us this opportunity to complete our Final Year Project under her supervise. Our supervisor, Puan Nazirah Mohamat Kasim had explain to us about the scope of project and all information about the project.

Bearing in mind previous we are using this opportunity to express our deepest gratitude and special thanks to Pn. Aida Zulia Zulhanip, our Final Year Project II (FYP2) coordinator for her help in a lot of ways to ease our final year project.

Firstly, I would like thanks a lot to UiTM Technician, friends and our family that continuously supporting us throughout finishing our final year project . Gaining new experiences and new knowledge makes us feel more confident to stand in this electrical engineering section.

Last, but not least, we offer our regards and blessings to my colleagues and all of those who supported us in any respect during the completion of the project.

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