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FINAL REPORT:
AUTOMATIC GRASS CUTTER

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ABSTRACT

In summary, the automatic grass cutter helps the user to own an easy and convenient tool, eco-friendly, time and energy conserving, and less noise intensity. The problem of conventional method is that it introduces manual monitoring, time and energy consuming, dangerous, requirement of skill, burdensome towards the elderly, and one of the contributing factors towards pollution. Objectives that have been taken into account for this project are by cutting the grass that exceeds 3 centimeters, and applies infrared sensor as an automation for safety features to detect the presence of obstacles which then will change its direction. Moreover, automatic grass cutter are built-in with PIC16F877A, infrared comparator sensor, servo motor, L293D, DC motor and so on. Furthermore, the designation and implementation of automatic grass cutter does not run from problems which are solved with the uses of infrared comparator, pushbutton with toggle on/off button, installation of resistors, heat sink, relays to support a higher amount of current. Lastly, the machine produces desired objectives which cut the grass of more than 3 centimeters, and infrared sensor as safety mechanism.

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS

ABSTRACT

LIST OF FIGURES.....1

LIST OF TABLES.....2

CHAPTER 1 INTRODUCTION.....3

1.1 Background of Study.....3

1.2 Problem Statement.....4

1.3 Objective of Research.....4

1.4 Scope of Study.....5

CHAPTER 2 MATERIALS AND METHODS.....6

2.1 Methodology.....6

2.1.1 Project Flow Chart.....6

2.1.2 Design Flow Chart.....9

2.1.3 Block Diagram.....10

2.2 Equipment and Component.....12

2.2.1 Infrared Comparator Sensor.....14

2.2.2 Microcontroller.....14

CHAPTER 3 CIRCUIT DESIGN AND OPERATIONS.....15

3.1 Schematic Diagram.....15

3.2 Circuit Operations.....16

3.2.1 Input Circuitry.....16

3.2.2 Output Circuitry.....17

3.3 PCB Designs.....19

3.3.1 PCB Layout.....19

3.3.2 PCB Development (Hardware).....21

CHAPTER 4 RESULT AND DISCUSSION.....23

4.1 Software Simulation Result.....23

4.2 Hardware Implementation Result.....25

4.3 Circuit Testing and Troubleshooting.....27

4.4 Data Analysis and Discussion.....28

CHAPTER 5 CONCLUSION AND RECOMMENDATION.....29