

AUTOMATIC MEDICINE DISTRIBUTOR

ZATY AMANINA BINTI ZAILALUDIN

MUHAMMAD AZIZI BIN CHE RASHID

MUHAMMAD MUZAMMEL BIN AHMAD

**FACULTY OF ELECTRICAL ENGINEERING
UNIVERSITI TEKNOLOGI MARA TERENGGANU**

To our beloved supervisor, I would like to thank you because you always guide us to complete our project and always be patient with our group. We know we made lots of mistakes during this project. To our beloved mom and dad, thank you for always supporting us and giving your cooperation to complete our project and giving funds to us to buy components of our project. And deeply thank you to our neighbour because of your cooperation to complete our field study and give ideas to do our project regarding our theme "Health and Safety".

ABSTRACT

This project is aimed to develop an Automatic Medicine Distributor which aimed to remind patient at home to take medicine or supplement on time. Automatic Medicine Distributor is used at home to remind people especially some people tend to forget to on take their medicine and this will affect on their health. This project consists of a Servo motor that control by Arduino controller. The first circuit is used to control the number of pills or supplements by time and the second one is to control the motor.

The Automatic Medicine Distributor is equipped with alarm system which is when the medicines or supplements are not taken from the small plate, the alarm will trigger until the medicines or supplements are taken. If the users don't want to use the device, they can simply switch off the main switch. Therefore, this Automatic Medicine Distributor will help the people to take their medicine on time.

TABLE OF CONTENT	PAGE
LIST OF SYMBOLS.....	1
LIST OF ABBREVIATIONS.....	2
CHAPTER 1: INTRODUCTION	
1.1 INTRODUCTION.....	3
1.2 PROBLEM STATEMENT.....	4
1.3 OBJECTIVES.....	5
1.4 SCOPE OF THE PROJECT.....	6
CHAPTER 2:LITERATURE REVIEW	
2.1 LITERATURE REVIEW.....	7
2.2 COMPONENT AND DISCRPTION	
2.2.1 COMPONENT LIST.....	8
2.2.2 IC NE555.....	9-10
2.2.3 IC ATMEGA328.....	11
2.2.4 SERVO MOTOR.....	12
2.2.5 LCD.....	13
2.2.6 RESISTOR.....	14
2.2.7 POWER SUPPLY.....	15
2.2.8 LIGHT EMITTING DIODES,LED.....	16
2.2.9 CAPACITOR.....	17
2.2.10 VOLTAGE REGULATOR.....	18
2.2.11 CRYSTAL OSCILLATOR.....	19
CHAPTER 3:METHODOLOGY	
3.1 PROGRESS.....	20
3.2 FLOW CHART.....	21
3.2.1 EXPLAINATION.....	22
3.3 SOFTWARE	
3.3.1 PROTEUS.....	23
3.3.2 ADRUINO.....	24
3.3.3 NE555 TIMER.....	25
3.4 SCHEMATIC DIAGRAM AND PCB LAYOUT	
3.4.1 SCHEMATIC DIAGRAM	26
3.4.2 PCB LAYOUT.....	26

CHAPTER 4:RESULT AND DISCUSSION

4.1 RESULT
 4.1.1 SIMULATION CIRCUIT IN PROTEUS.....27
 4.1.2 CIRCUIT ON BREADBOARD.....28
4.2 PROTOTYPE.....39
4.3 DISCUSSION.....30

CHAPTER 5:CONCLUSION AND RECOMMENDATION

5.1 CONCLUSION AND RECOMMEDATION.....31

REFERENCES.....32

APPENDICES..... 33-49