

CASH BOX GUARD WITH LIGHTING SECURITY SYSTEM

AMIRUL MUSTAQIM BIN ZAINUDIN

KHAIRUL FAIZEE BIN KORSIN

ALIFF ISKANDAR BIN ROSLI

A project report submitted in partial fulfillment of the requirements for the award of the degree of Diploma of Electrical Engineering (Electronics / Telecommunications / Instrumentations / Computer)

Faculty of Electrical Engineering

Universiti Teknologi MARA

APRIL 2014

TABLE OF CONTENTS

CHAPTER	CONTENTS	PAGE
	DECLARATION	iv
	DEDICATION	v
	ACKNOWLEDGEMENTS	vi
	ABSTRACT	vii
	ABSTRAK	viii
	TABLE OF CONTENTS	x
	LIST OF FIGURES	xii
	LIST OF SYMBOL	xiii
	LIST OF ABBREVIATIONS	xiii
1	INTRODUCTION	1
	1.1 Introduction	1
	1.2 Problem Statement	2
	1.1 Objective	4
2	LITERATURE REVIEW	5
	2.1 Background of Invention	5
	2.2 Component Used	6
3	METHODOLOGY	17
	3.1 Operation Circuit	18

	3.2 Flowchart of Project	21
	3.3 Flowchart of Operation	22
	3.4 Method Used	24
4	RESULT AND DISCUSSION	29
	4.1 Simulation Circuit in Proteus	29
	4.2 Circuit with Prototype	33
	4.3 Simulation of circuit at the Breadboard	34
	4.4 Prototype	35
	4.5 Discussion	36
5	CONCLUSION	37
	5.1 Conclusion	37
	5.2 Recommendation	37
	REFERENCES	38
	APPENDICES	39
	Gant Chart	39
	Datasheets	40

ACKNOWLEDGEMENT

Firstly, we would like to express our sincere thanks and appreciation to our supervisor, Mdm Nik Nur Shaadah because gives us support and guide us during we do our Final Year Project (FYP). Thanks also because of Mdm Nik Nur Shaadah have teach us how to and built the excellent project although busy with lecture every day. Other than that, thanks to our parents because support us especially in giving the money as a budget to buy the component and accessories for our project and also to all friends that help us when we have the problem especially with the troubleshooting process.

ABSTRACT

Nowadays, vaults and cash box recently happen rapidly among our community. The security system that been applied to these vaults are normally pin coded numbers. But, it only protects the vault from being broke into but does not provide a security system that will alert the owner when the vaults are broken. This project namely as Cash Box Guard With Lighting Security System. It created to give a supportive system to the pin coded numbers system. It acts as the secondary security system after the pin coded numbers. The system will be operated when the door of the vault is open. The switch behind the door will activated the light security system that is drive by IC 555. The timer IC are going to turn on the bulb thus the Light Dependent Resistor from Cash Box Guard system detects the light and drive the Piezobuzzer to produce an alarm sound. With this output, the owner will be aware when their vault or cash box were being broken at that time.