# CORRIDOR LIGHT THAT BLINK ON DETECTING MOTION

MUHAMMAD FAJRUL BIN JAFRIM
AHMAD ASLAM BIN ISMAIL

TK
4169
.M84
2015

FACULTY OF ELECTRICAL ENGINEERING
UNIVERSITI TEKNOLOGI MARA
MALAYSIA

MARCH 2015

| Bil | Tables Of Contents | Page Numbers |
|---|---|---|
| 1 | Acknowledgment | III |
| 2 | Abstract | IV |
| 3 | List of Figures | V-VI |
| | List of Abbreviation | |
| | List of Tables | |
| 4 | Chapter 1 Introduction | 1-6 |
| 5 | 1.1 Background of study | 1-3 |
| 6 | 1.2 Problem Statement | 4 |
| 7 | 1.3 Objectives of Research | 4 |
| 8 | 1.4 Scope of Study | 5-6 |
| 9 | Chapter 2 Materials and Methods | 7-27 |
| 10 | 2.1 Methodology | 7-11 |
| 11 | 2.2 Design Flow Chart | 12-13 |
| 12 | 2.3 Experimental setup | 14-16 |
| 13 | 2.4 Equipment and Component | 17-27 |
| 14 | Chapter 3 Circuit Design and Operations | 28-29 |
| 15 | 3.1 Schematic Diagram | 28 |
| 16 | 3.2 Circuit operations | 29 |
| 17 | Chapter 4 Result and Discussion | 30 -35 |
| 18 | 4.1 Software Simulation Result | 30-32 |
| 19 | 4.2 Hardware Implementation Result | 33-34 |
| 20 | 4.4 Data Analysis and Discussion | 35 |
| 21 | Chapter 5 Conclusion and Recommendation | 36-38 |
| 22 | 5.1 Conclusion | 36-37 |

| | | |
|---|---|---|
| 23 | 5.2 Recommendation | 38 |
| 24 | References | 39 |
| 25 | Appendices | 40-48 |

Acknowledgments

We would like to express our deep gratitude to our supervisor, Puan Nur Saadah Binti Muhamad Sauki. Her lectures was a great value in the preparation of this thesis and thanks for her valuable guidance , suggestion , and support through this year.

We would also like to thanks to all lecturers whom help us through this project.With his or her guidance and especially to their endless patience , highly valued advices and helpfulness in our project.Finally, we would like to thank our families and friends because they always help and support us over this year.

## Abstract

Now adays, electrical energy that been consumpt during night are very high in whole wide world. Although there are many ways to save energy consumption to do so.Lights are one of the most high energy consumption during night . Usually we will use manual switch to on and off lights, but what if it can automatically on and off at certain circumstance during the night

In this project, the main purpose to design automatic light corridor that will switch on by detecting motion. The PIR sensor will be use in this circuit to sense moving object. The circuit are design to to be fully functional during night and in daylight circuit will automatically set to idle by using LDR. The sensitivity of the LDR will be set for the circuit to differentiate between daylight and night. PIR sensor frequency will be set to detect motion. The sensor will be attach at corridor ceiling along with 3 LED and LDR will be at the top of the roof. Two led with low power consumption will be set at each corridor edge as passive light that only on during night.We are using 3 sensor, 5 LED and 1 LDR.