## UNIVERSITI TEKNOLOGI MARA KAMPUS BUKIT MERTAJAM 2002

FINAL REPORT OF DIPLOMA PROJECT

FACULTY OF ELECTRICAL ENGINEERING



**INFRARED DETECTOR** 

MD RAHIZAN MD BERHANNUDIN

## **ABSTRACT**

The infrared detector (Latch switch) is function as a TV Remote. This Project well be function when infrared receiver detected infrared Signal. When the signals are detected, switch in receiver circuit will be on.

The infrared detector (Latch switch) needs two circuits. First circuit is a Infrared Transmitter and second circuit is an infrared receiver and latch switch. Infrared Transmitter will function when we push on the PTT switch, infrared Beam generate from L1 and L2 (Infrared diode). Infrared receiver will function when the sensor detected infrared beam and L1 is on.

The cost of this project is amount RM 40 to RM 50.

## Acknowledgement

Firstly, thanks to Allah for blessing us to finish this Project 2. This report could not have emerged in its present form without the helpful suggestions. Made by many people during its preparation.

Firstly I would like to Express our sincere gratitude to our supervisor Cik Nor Azila BT Ismail for Her attitude and helping on our project 2, which is important to be completed in semester 6. We are so grateful to have her as our supervisor because we Don't have many pressure and enjoy discussing our problem that related with my project.

Thanks also to all of our friend for their commitment, contributions And participants to give some opinion and idea to complete this report Our special thanks is dedicate to our family for their support spend some money on both of us and give us motivations and inspirations to settle this KEU 280 (project 2). Not forgotten, thanks a lot for the following reviewers who offered many helpful from the beginning of this report that is Ab Mutalib, Hairul Azwii, Md Nizam and Mohd Juhairi for their support and commitment to help us. Without all of them, maybe this report cannot be successful complete.

ABSTRACT	1
ACKNOWLEDGEMENT	2.
INTRODUCTION	4
OBJECTIVE	5
COMPONENTS SUBCRIPTION  *Switch  *Resistors  *Capacitors  *Diodes  *Integrated Circuit  *Operational Amplifiers  *Bipolar Transistors  *Relays  *LEDs	6-26
COMPONENT LIST	27
SCHEMATIC DIAGRAM	28
DISCUSION	31
CONLUSION	3 2
MEDICALISM	33
APENDIX	34

## **Objective**

At the end of the Project 2 report the student should be able to:

- 1. To approach us knowing and familiar with the circuit diagram.
- 2. Know what is the function of the circuit that used in the circuit.
- 3. Learn how to create a circuit diagram by using circuit maker software and it output (simulation)
- 4. Learning how to prevent troubleshooting and it solution (serve the component that can be used in project replacing the old one).
- Knowing what is the most important thing to run a project for example DC or AC current.
- 6. Can manage to change the function of a circuit according to our imagination because we have a very strong basic theory in electronic system and devices.
- 7. Make sure so that we can manage to complete Project 2 (KEU 380) without any problem.
- 8. Appreciate how to use circuit maker program.