

INFRA RED ALARM

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By:

Koyah Embong - 84819843

Normah Hussin- 85544539

DEPARTMENT OF ELECTRONIC ENGINEERING

MARA INSTITUTE OF TECHNOLOGY

SHAH ALAM 40450 SELANGOR

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## ABSTRACT

This circuit was designed as a multipurpose movement detector able to form the basis of all sorts of burglar alarms and automatic controllers. It will work either as a single interrupted beam alarm over substantial distances or will directly detect moving objects or persons by measuring changes in the level of reflected infra red over shorter distances. The output of the device is a set of mains-rated changeover relay contacts which operate as soon as an object is detected, and remain operated for a pre-settable time between one second and one hour.

As the relay contacts are mains voltage rated and are capable of carrying up to 6A they can be used to control a wide variety of things such as automatic garage door opening mechanisms, central heating systems, room lighting, extractor fans, alarms bells, tape-recorders and cameras. There must be hundreds of other applications in agriculture, industry and commerce for this versatile detector.

This project was successfully built and tested to perform as specified.

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## 1. INTRODUCTION

In modern life, automatic switch was built in any ~~new~~ method and incentive. Thus in this project it was invented from the contact type to the radiation type.

It is the scope of this report to describe the workings of a radiation type alarm, namely the infra-red alarm.

Basically the infra-red alarm consist of a transmitter and a receiver. The transmitter operates as a Light Emitting Diode(LED) pulse generator. This counts of Infra-red light emitting diode(LED) which radiates invisible beam to the receiver.

The main components of the receiver are the photodiode and a pulse amplifier. The photodiode is receives the radiation beam from the transmitter.