



## Automatic Railway Light Control System

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### Abstract:

Now days energy saving is very important thing in all over the world. So focusing on this issue we are doing a new project which saves the excess use of energy waste on Indian Railways. You think Why we choose Indian Railway, because in India minimum 10% of all energy will be used for transportation. And maximum waste of energy is there so for reducing this we used our project on sample basis and after that in large amount. In this project, we used MICROCONTROLLER, IR & LDR sensor. Controller control all activity done in project. IR sensor Used for detecting railways position. & LDR sensor used for detecting Light. By use of this two sensor we can control platform light. The Microcontroller will sense the presence of trains by using Infrared sensors. So on sensing the train on one path, using relay platform LED lights will TURN ON/OFF. The red/green Signal is used for train indication purpose. The signal automatically turns to red when the train comes and becomes green when the train leaves the platform. IR1 Sensor is used to sense train to turn on platform light and when train pass through tunnel and 2<sup>nd</sup> IR Sensor is used to detect train OFF platform light and when train leave the platform.

**Keywords:** - IR Sensors, Microcontroller, LDR Sensors, LED Lights, AT89S52, ORCAD

### Introduction:-

In this project, we used MICROCONTROLLER, IR & LDR sensor. Controller control all activity done in project. IR sensor Used for detecting railways position. & LDR sensor used for detecting Light. By use of this two sensor we can control platform light. The Microcontroller will sense the presence of trains by using Infrared sensors. So on sensing the train on one path, using relay platform LED lights will TURN ON/OFF. The red/green Signal is used for train indication

purpose. The signal automatically turns to red when the train comes and becomes green when the train leaves the platform. IR1 Sensor is used to sense train to turn on platform light and when train pass through tunnel and 2<sup>nd</sup> IR Sensor is used to detect train OFF platform light and when train leave the platform.

### System Development:

This system is designed to develop to detect railway positioning system which can operate by IR Sensors

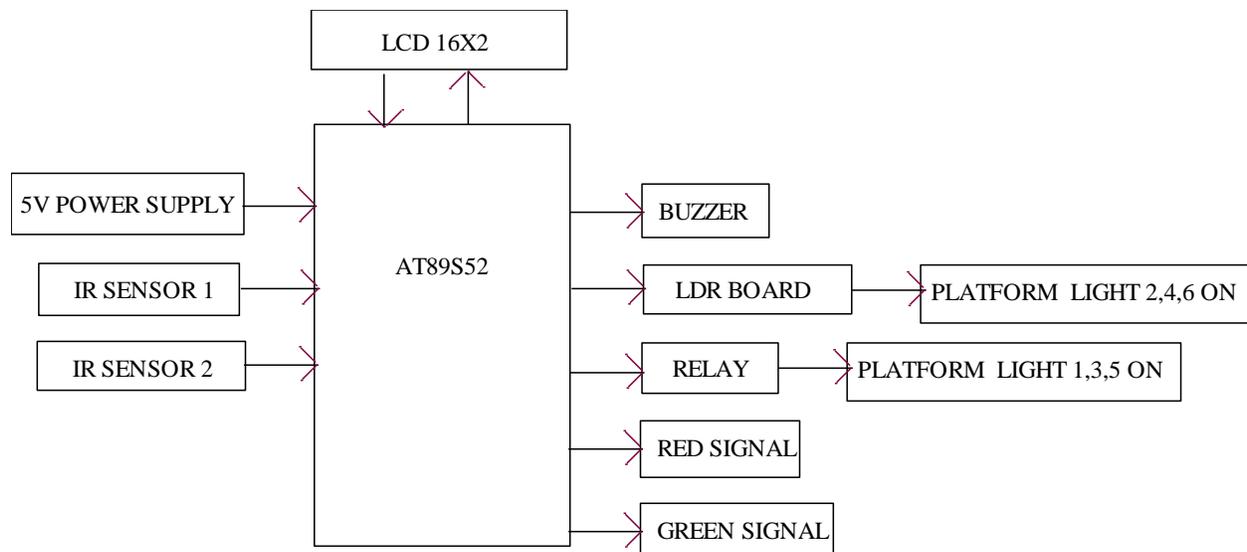


Diagram- Automatic Railway lighting System

### Requirements:

AT89S52

RELAY BOARD

LDR BOARD

BUZZER

LEDS

ALTIIUM

ORCAD

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## Advantages:

- Automatic sensor railway an turn on light .
- Intelligent railway lighting can sense Day and night Mode.
- It will also sense the Railway on both side of platform.

## CONCLUSION:

This idea will help in conserving energy requires in railway.

As the system is fully automatic, it avoids manual errors and thus provide ultimate safety.

This mechanism works on a simple principle and there is not much of complexity needed in the system.

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