

MALLABHUM INSTITUTE OF TECHNOLOGY



PROJECT REPORT ON AUTOMATIC STREET LIGHT CONTROL SYSTEM

Automatic Street Light



PRESENTED BY
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CONTENTS

- INTRODUCTION
- HOW IT WORKS
- MAIN COMPONENTS
- ABOUT THE COMPONENT
- CIRCUIT OF AUTOMATIC STREET LIGHT
- ADVANTAGES
- DISADVANTAGES
- APPLICATION
- CONCLUSION
- REFERENCE

INTRODUCTION

- Reducing the wastage of power
- LDR is very useful in light/dark sensor

circuit normally the resistance of an LDR is very high something as high as 100000 ohms.

Automatic Street Light



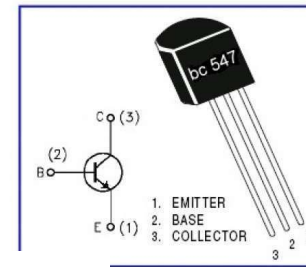
HOW IT WORKS

- Light falls on LDR, it shows its minimum resistance voltage drops across LDR less than voltage of transistor, so no current will go from the collector to the emitter and transistor remains off.
- It automatically switches ON lights when the sunlight goes below the visible region of our eyes. (in evening after Sunset)



MAIN COMPONENTS

➤ TRANSISTOR BC547



➤ LDR (LIGHT DEPENDENCE RESISTOR)



➤ RESISTOR



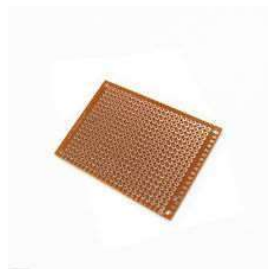
➤ LED



➤ BATTERY



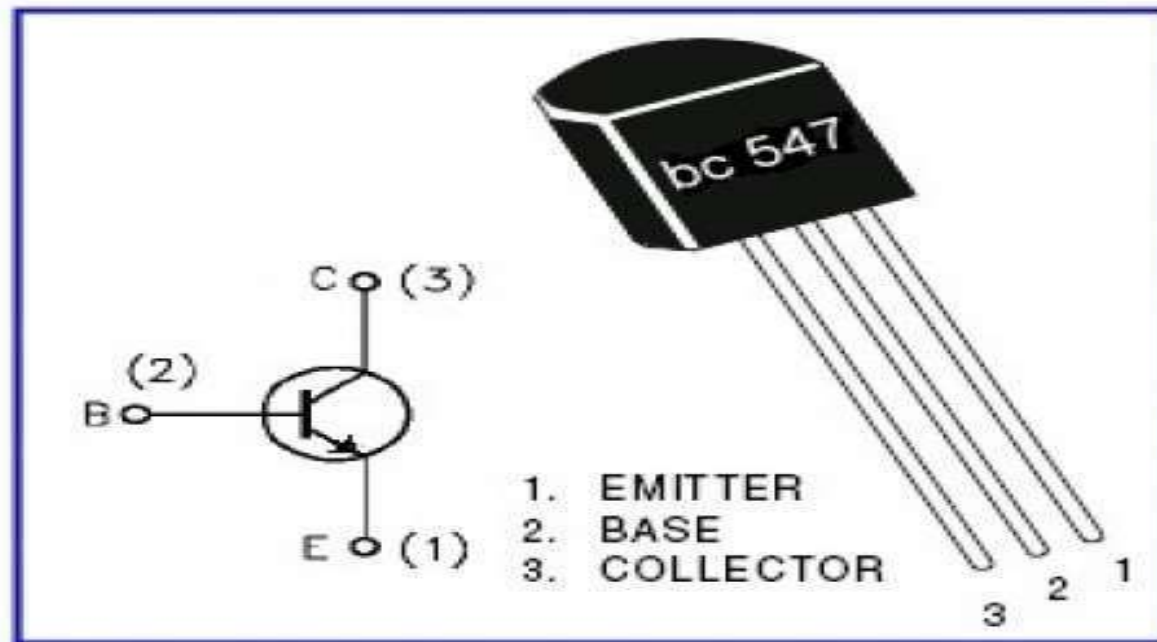
➤ PCB BOARD



THE COMPONENTS

TRANSISTOR BC547ABOUT

- Has an emitter terminal, a base terminal and a collector terminal
- current flowing from the base to the emitter controls the collector current



ABOUT THE COMPONENTS

LDR (LIGHT DEPENDENCE RESISTOR)

- An electronic component whose resistance decreases with increasing incident light intensity
- Used in a potential divider setup with a second regular resistor

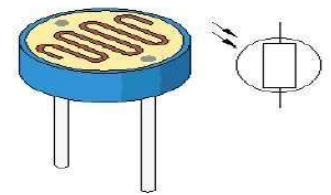


Fig. 1.2: Practical LDR.

RESISTOR

- The flow of current across the resistor device
- adjustable resistors are refers to as potentiometers



ABOUT THE COMPONENTS

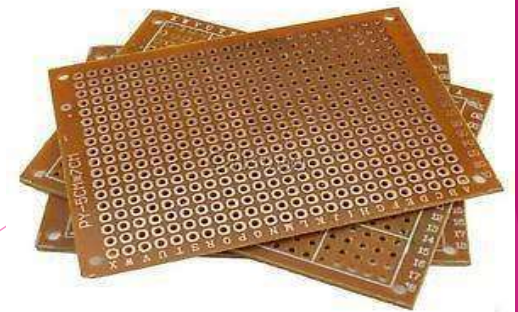
BATTERY

- A battery is a device that is able to store electrical energy in the

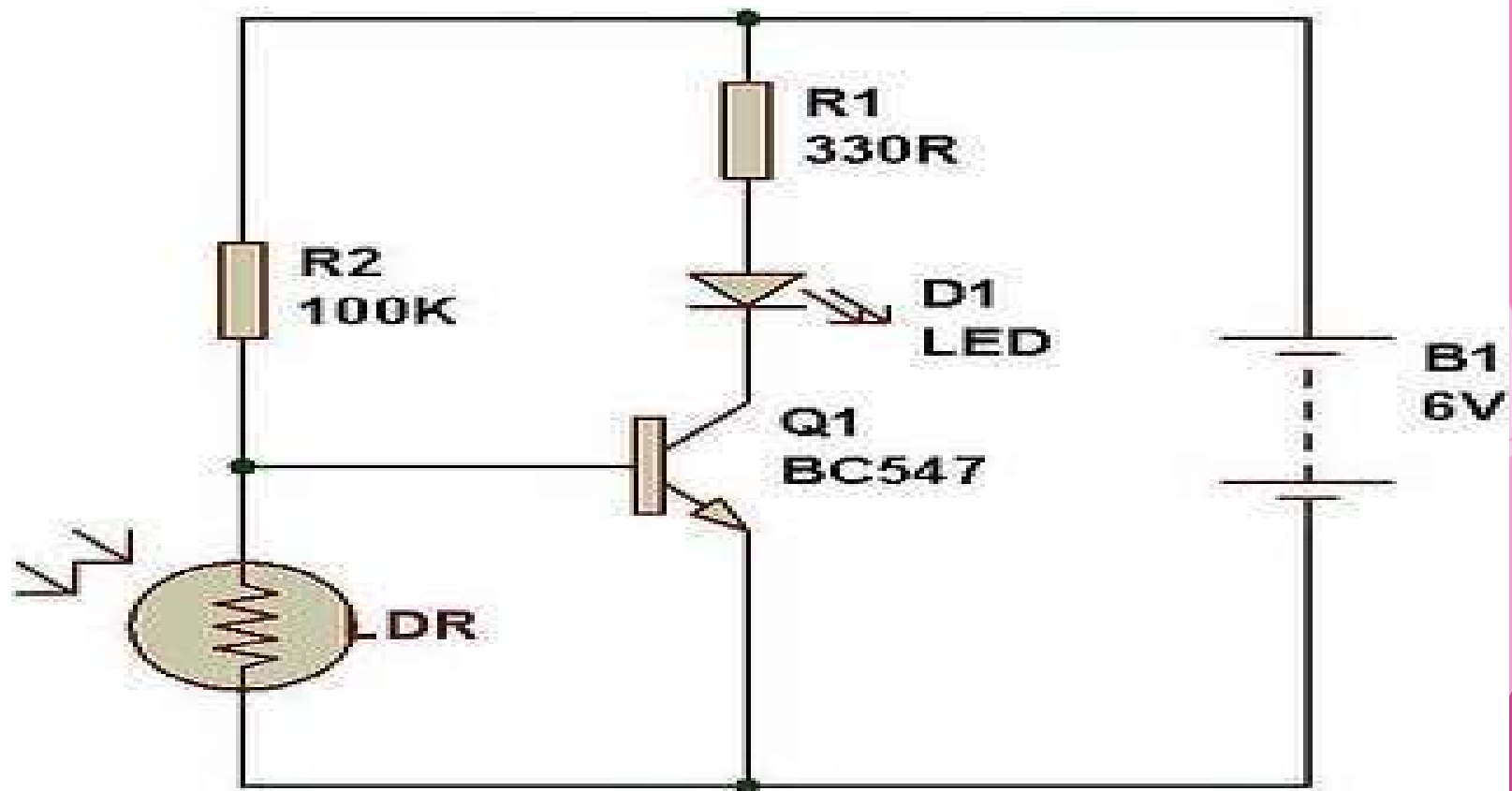


PCB BOARD(PRINTED CIRCUIT BOARD)

- Mechanically supports and electrically electronic connects components using conductive tracks



CIRCUIT OF AUTOMATIC STREET LIGHT



ADVANTAGES

- Energy savings
- Low cost
- Safety and Security
- Automated operation



DISADVANTAGES

- It has a limitation of power
- Light turns on when shadow falls on LDR
- LED is a low voltage device

APPLICATION

- Used in street light applications
- Used in Domestic application



CONCLUSION

In coming days, this will prove a great boon to the country, since it will save lot of electricity of power plant that gets wasted in illuminating the street lights.

As a conclusion, around 77%-81% of power consumption can be reduced

By using this system towards providing a solution for energy saving



REFERENCE

1. **Badri Narayan Sahoo**, Dept. of Electronics & Communication Engineering, Siksha O Anusandhan Deemed to be University, Odisha, India.
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Thank You

