

# Automatic Night Lamp with BC547 Transistor LED Night Light LDR

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# Introduction

- Good morning/afternoon/evening, ladies and gentlemen.
- Today, I am delighted to present an innovative project titled *Automatic Night Lamp with BC547 Transistor LED Night Light LDR*.
- Aims to design an intelligent and energy-efficient night lamp.
- Automatically turns on in darkness and turns off during daylight.
- Utilizes a Light Dependent Resistor (LDR) and a BC547 transistor.

# Components

- Small LDR (Light Dependent Resistor)
- BC547 Transistor
- 3V LED (Light Emitting Diode)
- 1k Resistor
- 10k Resistor

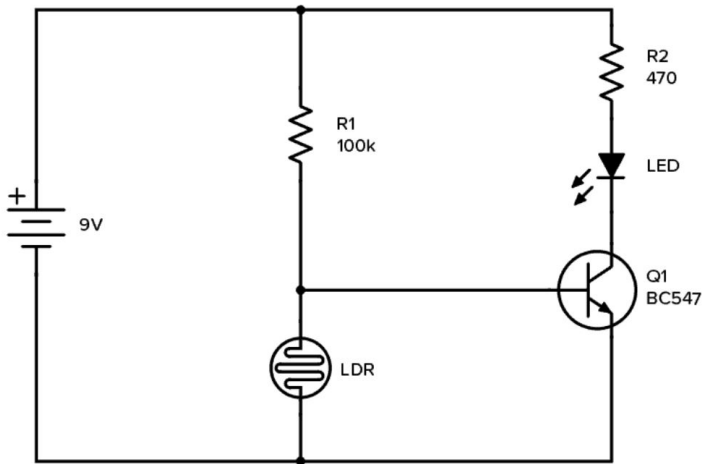
# Advantages

- Energy Efficiency
- Convenience
- Cost-Effectiveness
- Customizability

# Disadvantages

- Limited Range
- Dependency on Ambient Light

# Circuit Diagram



**Figure:** Circuit diagram of the Automatic Night Lamp with BC547 Transistor LED Night Light LDR project.

# Conclusion

- The *Automatic Night Lamp with BC547 Transistor LED Night Light LDR* project provides an intelligent and energy-efficient solution for nighttime illumination.
- Incorporates a small LDR, BC547 transistor, LED, and appropriate resistors.
- Automatically turns on in darkness and turns off during daylight hours.
- Simplicity, cost-effectiveness, and customizability make it a valuable addition to modern lighting systems.