

# Solar street lights auto detection of power consumption

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## PROBLEM STATEMENT

The amount of power consumed by street lights in a year is  $\frac{1}{3}$  of the global energy produced. Most of this energy is wasted in unnecessary illumination - that is, street lights stay ON even in the absence of people or vehicles.

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## INTRODUCTION

The rise in industrialization and technological developments has led to a simultaneous rise in environmental threats and energy depletion. Therefore, it is high time channelled for the evolution of technology towards developing devices that are energy-efficient and environment-friendly. In any developed or developing country, one of the major areas of power wastage is public lighting. The amount of power consumed by street lights in a year is  $\frac{1}{3}$  of the global energy produced. Most of this energy is wasted in unnecessary illumination - that is, street lights stay ON even in the absence of people or vehicles. This is a depletion of energy and capital. Therefore, it is inevitable for the government to implement an automated street lighting system that enables efficient power consumption. An energy-efficient power generating system is implemented in this proposed model that automates street lights based on traffic density. Traffic density is a measure of the number of vehicles that pass a particular area over a period of time. Based on this information, this paper proposes a smart upgrade to the street lighting system.

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## IDEA GENERATION

We have designed a circuit with the help of LDR, which turns on the bulb only when it is dark, thereby saving energy.

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## PROTOTYPE IMAGES

