

Automatic Street Light Using Arduino

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Abstract: *Night travel safety has been a concern throughout history, with traditional street lighting systems often proving inefficient due to manual operation and reliance on electricity grids. To address these issues, the concept of smart street lights emerged, incorporating sensors, microcontrollers, and LEDs for automated operation and energy efficiency. Light Dependent Resistors (LDRs) enable automatic activation at twilight, while Infrared (IR) sensors detect vehicle and human presence for adjustments during the night. Despite initial installation costs, the long-term benefits in safety and energy savings make smart street lighting a promising solution to improve urban lighting infrastructure.*

Keywords: Night travel safety, smart street lights, sensors, microcontrollers, LEDs, energy efficiency

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