

SMART LIGHTING SYSTEM

Project Proposal

EN1190 - Engineering Design Project 2024

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OK. Please proceed

Where will this device be mounted? In the holder? Are you going to design a customized holder?

What will be the power source? Same ac power that connects the light?

Will the controller be one light specific or can it handle more than one light? If multiple, how do you handle addressing?

Smart Lighting System

Introduction

Presently, people are hesitant to install IoT lighting systems as they require a complete rewiring of the domestic circuit and replacement of existing bulbs, which also comes with an added cost. We present a hassle-free product, which allows users to convert their existing lighting circuit into an IoT-based smart lighting system.

Aim

An easily installable, cost-effective solution that can be implemented on existing domestic devices.

Objectives

A device which allows a user to

- turn light bulbs on and off remotely
- retain manual control over bulbs through existing switches
- control the lights over the internet through a mobile app

Audience

People willing to embrace IoT home automation

Implementation

Our implementation will consist of a microprocessor and a relay, fixed close to the bulb. The microcontroller will receive instructions through WiFi and turn the relay on or off.

Future Developments

- Allowing control of light intensity through a mobile app
- Scaling the same model to a universal IoT adapter to be used in many other devices apart from light bulbs