

Arduino Bluetooth-controlled light

Abstract:

- The project aims to develop a Bluetooth-controlled lighting system using Arduino.
- The system enables users to remotely control lights via a smartphone application.
- The hardware setup consists of Arduino Uno, a Bluetooth module (HC-05), and a relay module to interface with AC-powered lights. The Arduino communicates wirelessly with a mobile device using Bluetooth technology.
- The smartphone app provides a user-friendly interface to turn lights on/off and adjust brightness levels.
- The software running on the Arduino facilitates communication with the Bluetooth module and controls the connected lights based on received commands.
- This project demonstrates a practical application of IoT (Internet of Things) technology for home automation and provides insights into integrating microcontroller-based systems with mobile devices for remote control functionalities.

