

TITLE OF ACTIVITY: Smart Phone Controlled Window Blind



SDG Description: 4,8, 9

Venue: NUTECH University

Mode: Physical

Date: July-August 2024

Duration: One Month

Brief Explanation of the Activity:

The window blinds are mainly used for privacy and blocking/filtering the sunlight. The rapid development in home automation and internet of things is making household appliances smarter and more efficient. The aim of this project is to make the smart window blind which can be controlled from smart phone. The user can control the up/down movements of a blind through an android application. The project uses gears, dc motor, microcontroller and Bluetooth module. The mobile application will provide an interactive interface from where the user can control the blind. In addition, it will also allow to move the blind up/down on the pre-defined time set by the user. The project

Pictorial Evidence:

SMART PHONE CONTROLLED WINDOW BLIND

DESCRIPTION

The Smart Phone Controlled Window Blind is a smart blind which uses Arduino microcontroller, Bluetooth, RTC along with mechanical system. This system allows users to control their blinds wirelessly via a smartphone app, enabling manual adjustments and scheduled automation based on the time of day. The Bluetooth module facilitates communication between the smartphone and the Arduino, while the RTC module enables time-based operations, such as opening the blinds at sunrise and closing them at sunset. The motor, coupled with a gear mechanism, ensures precise movement, providing a convenient and energy-efficient solution for modern home and office environments.



BLOCK DIAGRAM

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    graph TD
      App[SmartPhone App] -- Bluetooth --> Controller[Controller]
      Controller --> MotorDriver[Motor Driver]
      MotorDriver --> Gears[Gears/ Motor]
  
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COMPONENTS






GROUP MEMBERS

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(Standy Picture)