Components Used in the Project

1. **Arduino Uno:** A microcontroller board used to control the entire circuit and run the code.

2. **IR Sensor:** A sensor module that detects infrared signals from the IR remote to control the LEDs.

3. **IR Remote:** A handheld remote that sends infrared signals to the IR sensor for wireless control.

4. **LEDs (Blue, Orange, Green):** Visual indicators that light up based on remote signals.

5. **Resistors (220Ω):** Used to limit the current for LEDs, preventing damage.

6. **Breadboard:** A platform for connecting the circuit components without soldering.

7. **Connecting Wires:** Used to establish connections between the Arduino, LEDs, and IR sensor.

Project Description

This project aims to demonstrate wireless control of three LEDs using an IR remote. An Arduino Uno acts as the brain of the system,

receiving input signals from an IR sensor. The IR remote sends unique codes for each button press, which the sensor decodes and transmits to the Arduino.

Each code corresponds to specific actions: turning the blue, orange, or green LED on or off. By assigning these unique codes in the code's switch-case structure, the

project effectively enables remote-controlled lighting. This simple yet effective system illustrates the practical use of IR communication for device control.