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INFRARED IR WIRELESS REMOTE CONTROL MODULE KIT

Introduction:

A handheld, wireless device used to operate audio, video and other electronic equipment within a room using light signals in the infrared (IR) range.

Arduino Mini Infrared Wireless Remote Control Kit consists of ultra-thin infrared remote control and a 38KHz infrared receiver module. This mini slim infrared remote control with 20 function keys. Its transmit distances are up to 8 meters. Ideal for handling a variety of equipment indoors. IR receiver module can receive a standard 38KHz modulation remote control signal

Features:

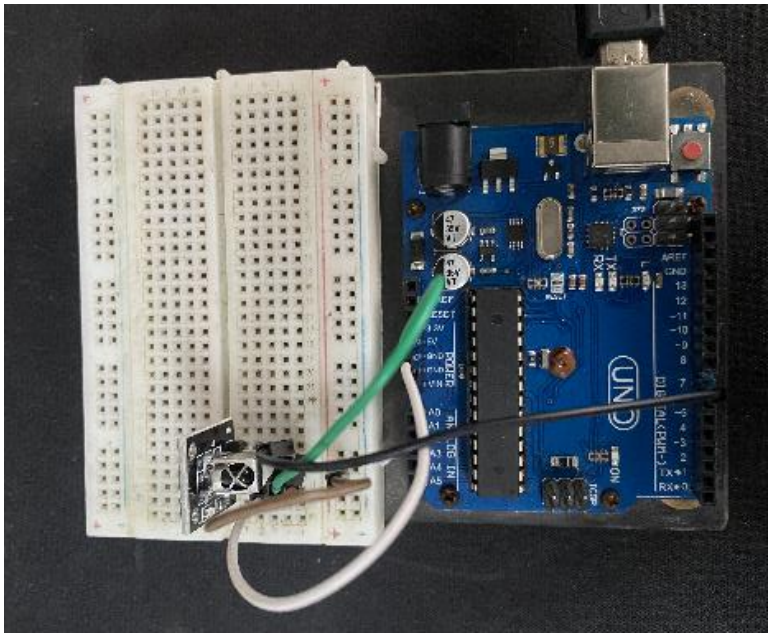
- IR transmission distance: 8 meters but must be direct line of sight and the receiver's sensitivity
- Effective angle: 60 degrees
- Case material: 0.125mm PET
- Estimated usage: 20,000 times
- Quiescent current 3-5uA
- Dynamic current 3-5mA

Spec:

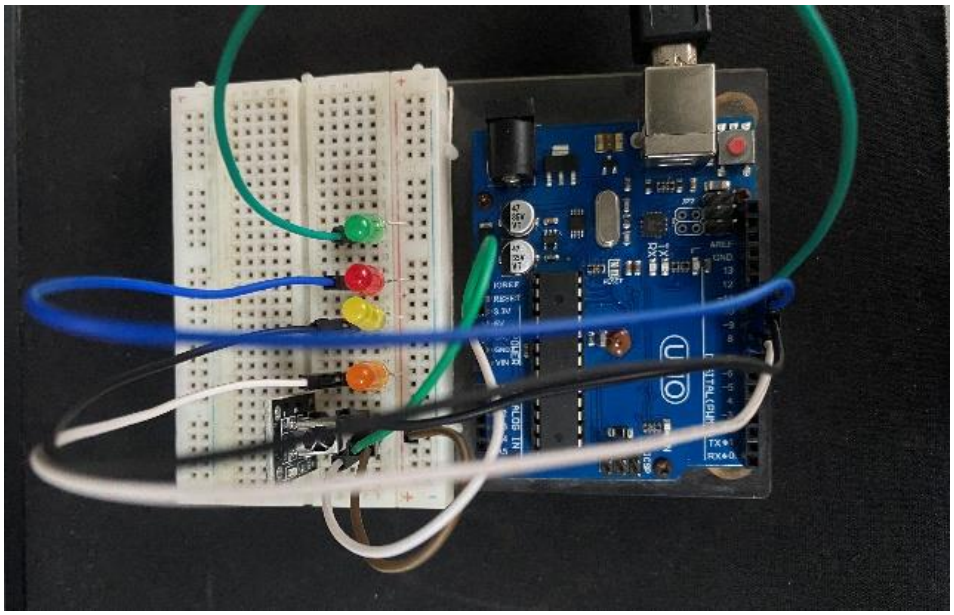
- Operating voltage: 3.3-5.5V
- Current consumption: 1.5mA
- Detection angle: 45°
- Reception distance: up to 17 meters
- Frequency: 38KHz

Procedures: -

Step 1: Infrared IR Receiver module has three pins: GND, Signal, and VCC. The GND pin is connected to ground, the signal pin connected to 7, and the VCC is the power supply.



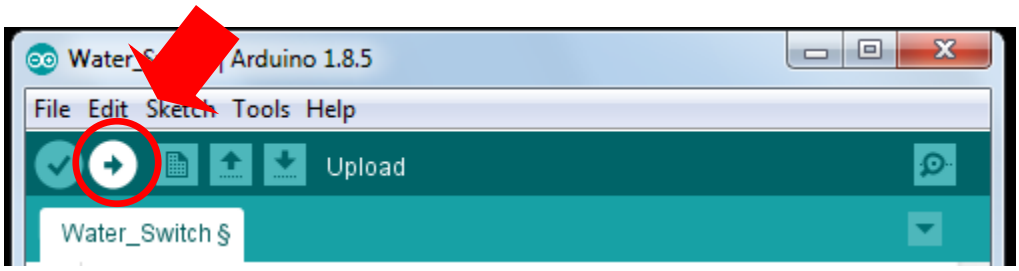
Step 2: Make sure to common all GND connection before attached the LEDs**.**



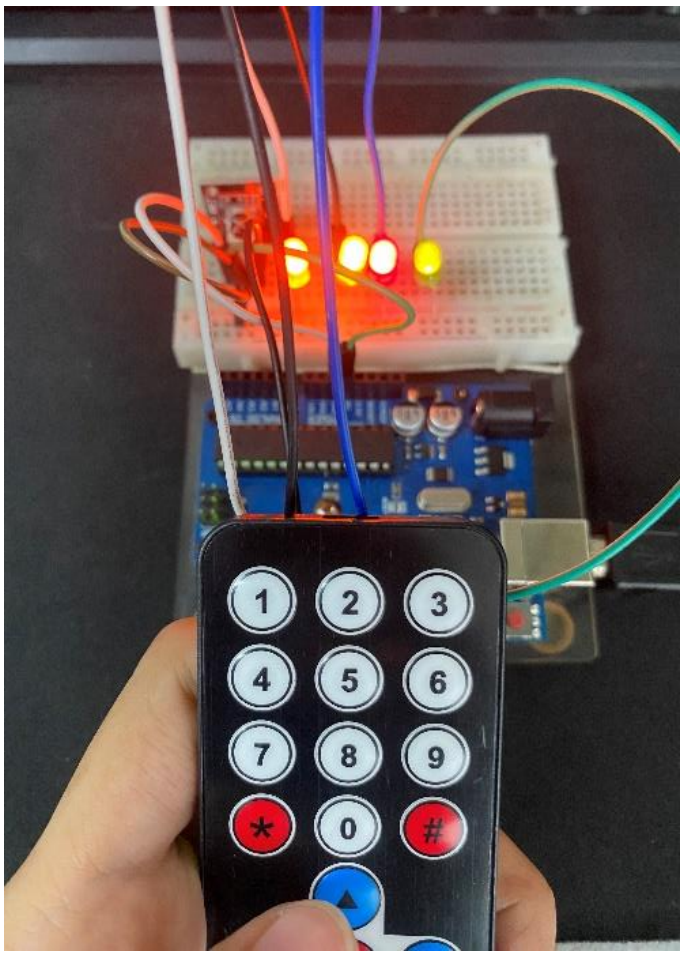
Step 3: Open Arduino IDE on PC and insert the given code below.

```
#include <IRremote.h>

const byte IR_RECEIVE_PIN = 7;

#define LED1 8
#define LED2 9
#define LED3 10
#define LED4 11

void setup()
{
  Serial.begin(115200);
  Serial.println("IR Receive test");
  IrReceiver.begin(IR_RECEIVE_PIN, ENABLE_LED_FEEDBACK);

  pinMode(LED1, OUTPUT);
  pinMode(LED2, OUTPUT);
  pinMode(LED3, OUTPUT);
  pinMode(LED4, OUTPUT);
}

void loop()
{
  if (IrReceiver.decode())
  {
    String ir_code = String(IrReceiver.decodedIRData.command, HEX);
    Serial.println(ir_code);

    if(ir_code == "1")
      digitalWrite(LED1, HIGH);
    else if(ir_code == "2")
      digitalWrite(LED1, LOW);
    if(ir_code == "3")
      digitalWrite(LED2, HIGH);
    else if(ir_code == "4")
      digitalWrite(LED2, LOW);
    if(ir_code == "5")
      digitalWrite(LED3, HIGH);
    else if(ir_code == "6")
      digitalWrite(LED3, LOW);
    if(ir_code == "7")
      digitalWrite(LED4, HIGH);
    else if(ir_code == "8")
      digitalWrite(LED4, LOW);

    IrReceiver.resume();
  }
}
```

Step 3: After that, connect the Arduino UNO to the PC. Then click upload to start compiling and uploading program to the board.



Step 4: LEDs will turn ON and OFF based on numbering that we pressed and we set in the Arduino code.



Application:

- Rail Safety
- IR Imaging Devices
- Infrared Astronomy
- Optical Power Meters Night Vision Devices