Ex.No.3 **Making LED Blinking using Arduino**

Aim:

To make two LEDs to blink alternatively using Arduino UNO

Components Required:

1. Arduino UNO R3 - 1
2. Red LED – 1
3. Blue LED – 1
4. 220 ohm resistor – 1

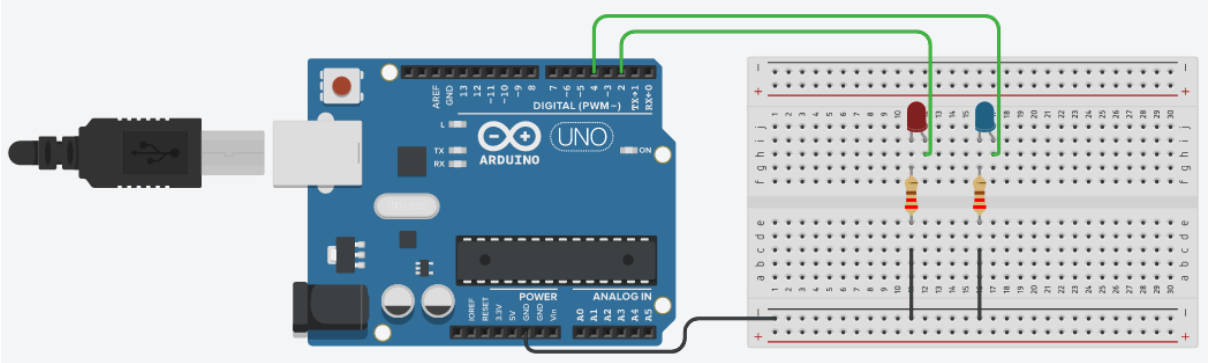
Procedure:

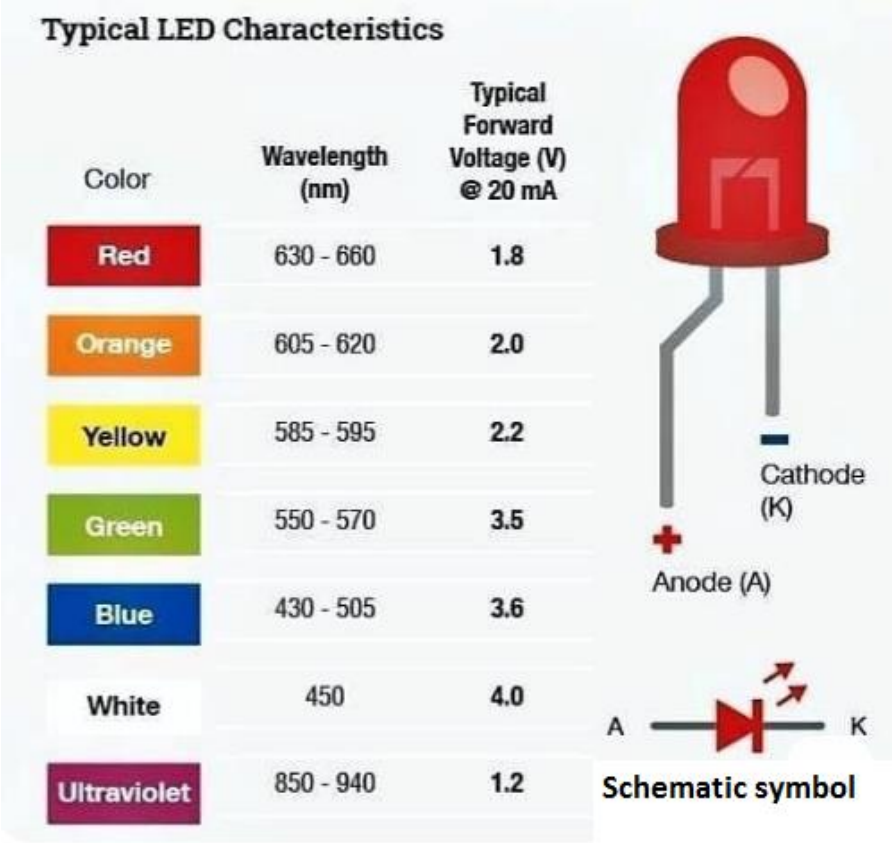
1. Connect the components on the breadboard according to the circuit connections mentioned.
2. Connect the Arduino to your computer using a USB cable.
3. Open the Arduino IDE on the computer.
4. Copy and paste the provided Arduino code into the IDE.
5. Select the correct board and port from the Tools menu in the Arduino IDE.
6. Click the "Upload" button to upload the code to the Arduino.
7. Once the upload is complete, press the button on the breadboard and observe the distance displayed in response.

Circuit Connections:

1. Connect the Digital I/O pin 2 to Red LED anode side.
2. Connect the Digital I/O pin 4 to Blue LED anode side.
3. Connect one side of resistor 220 ohm to Red LED cathode side. Similarly connect one side of resistor 220 ohm to Blue LED cathode side.
4. Connect the ground pin in Arduino UNO to negative side in breadboard, and connect the another side of two resistors to ground side in breadboard.

Circuit Diagram:

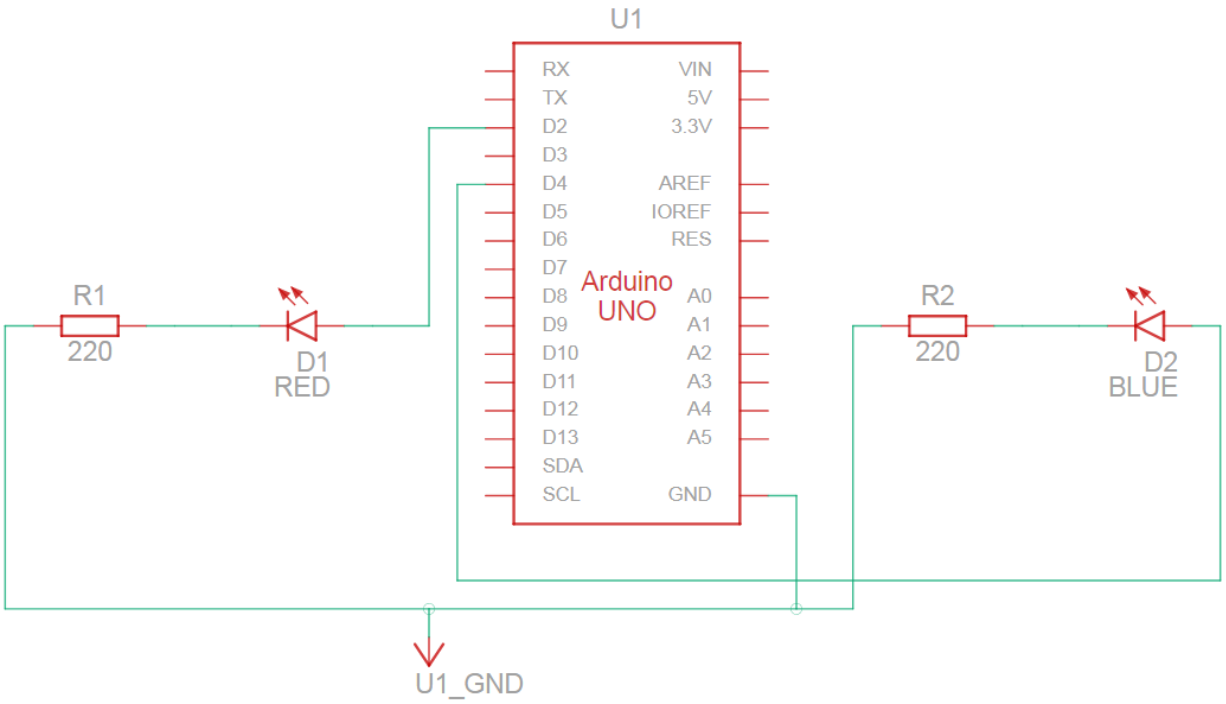




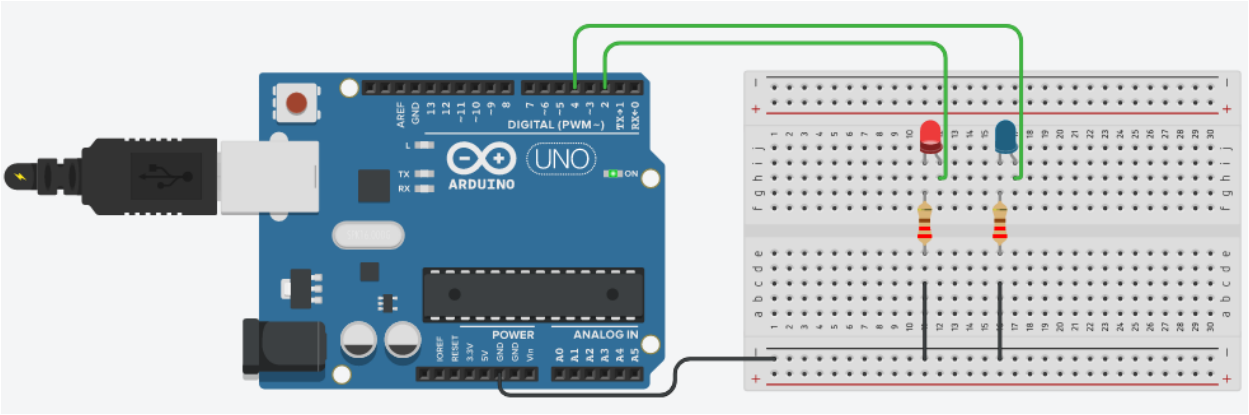
Arduino Code:

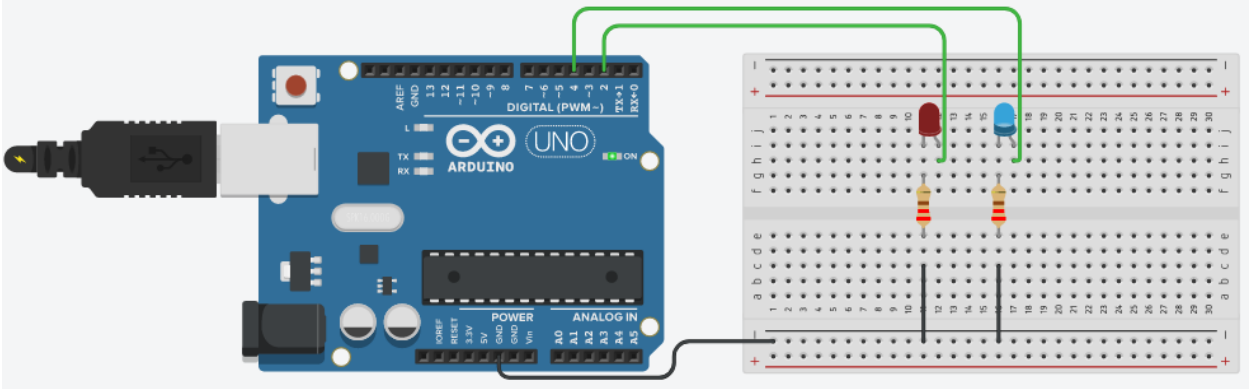
```
void setup()
{
  pinMode(2, OUTPUT);
  pinMode(4, OUTPUT);
}
void loop()
{
  digitalWrite(2, HIGH);
  digitalWrite(4, LOW);
  delay(2000); // Wait for 2000 millisecond(s)
  digitalWrite(2, LOW);
  digitalWrite(4, HIGH);
  delay(2000); // Wait for 2000 millisecond(s)
}
```

Schematic Pin Diagram:



Sample Output Screenshot:





Result:

Thus the given two LEDs are made to blink alternatively using Arduino UNO.