

## IOT 5TH SEM LAB

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Program no \_\_04\_\_

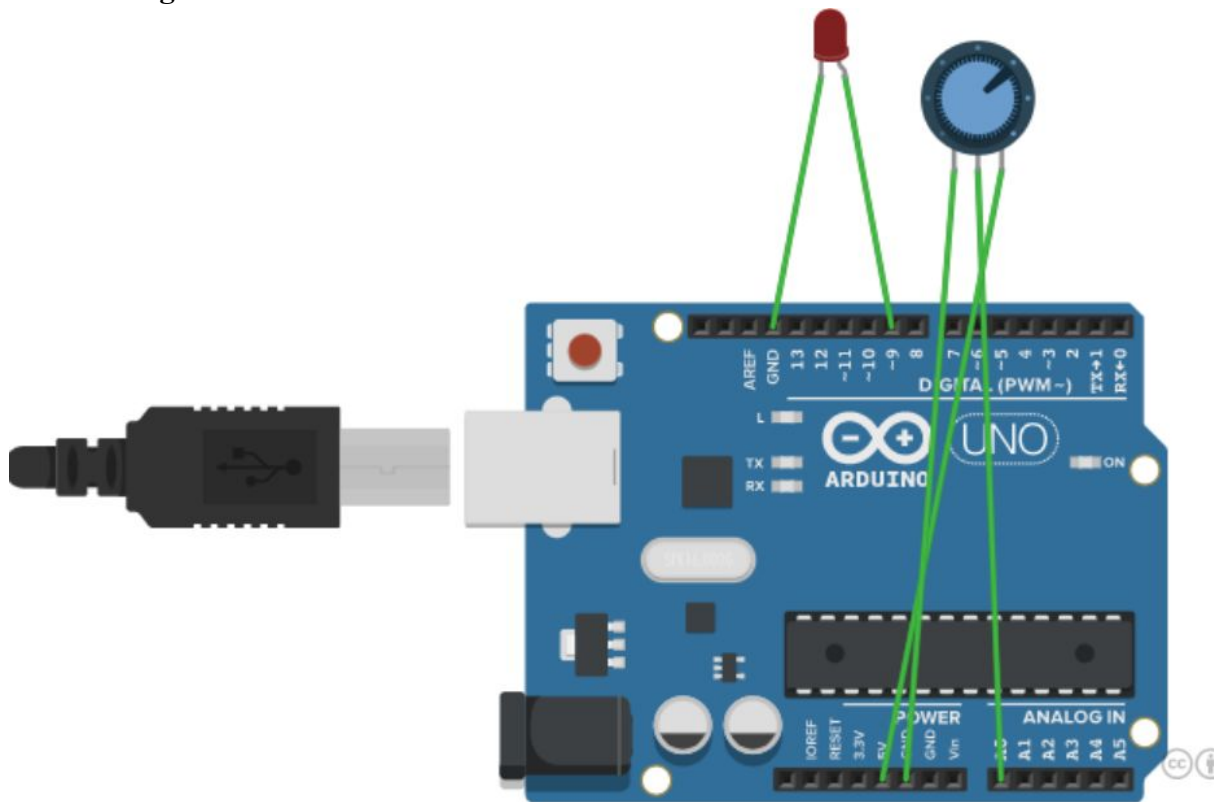
Program Title \_\_\_\_\_POTENTIOMETER\_\_\_\_\_

Aim-to control brightness of led bulb using potentiometer

### Hardware Required

- Arduino uno Board
- led bulb
- resistor 100 ohm
- potentiometer
- jump wires

### Circuit Diagram



**Code:**

```
int LED_PIN = 9;  
void setup()  
{  
  Serial.begin(9600);  
  pinMode(LED_PIN, OUTPUT);  
}  
  
void loop()  
{  
  int analogValue = analogRead(A0);  
  int brightness = map(analogValue, 0, 1023, 0, 255);  
  analogWrite(LED_PIN, brightness);  
  Serial.print("Analog: ");  
  Serial.print(analogValue);  
  Serial.print(", Brightness : ");  
  Serial.println(brightness);  
  delay(100);  
}
```

**Observation /Output-the brightness of led bulb increased/decreased upon turning the potentiometer knob**

