

# IOT LAB - 5th Sem

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Program No : 04

Program Title : Potentiometer

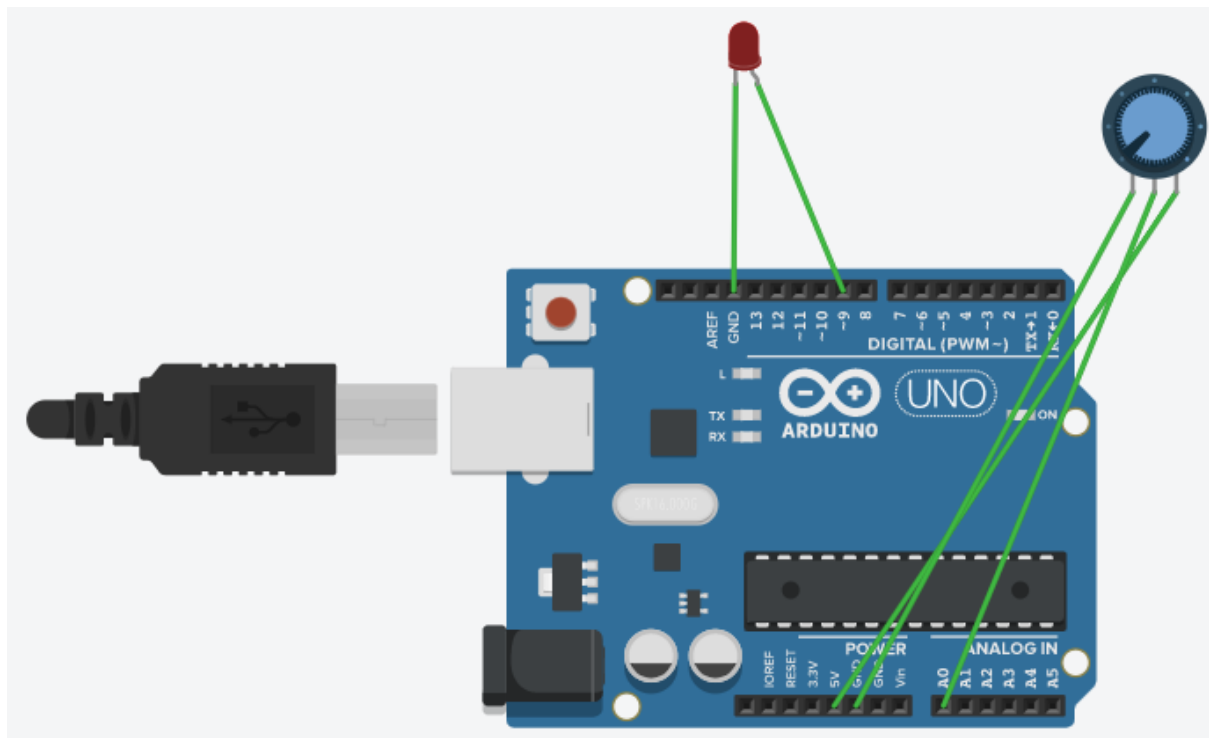
Aim :

To control the brightness of an LED using an Arduino Uno board.

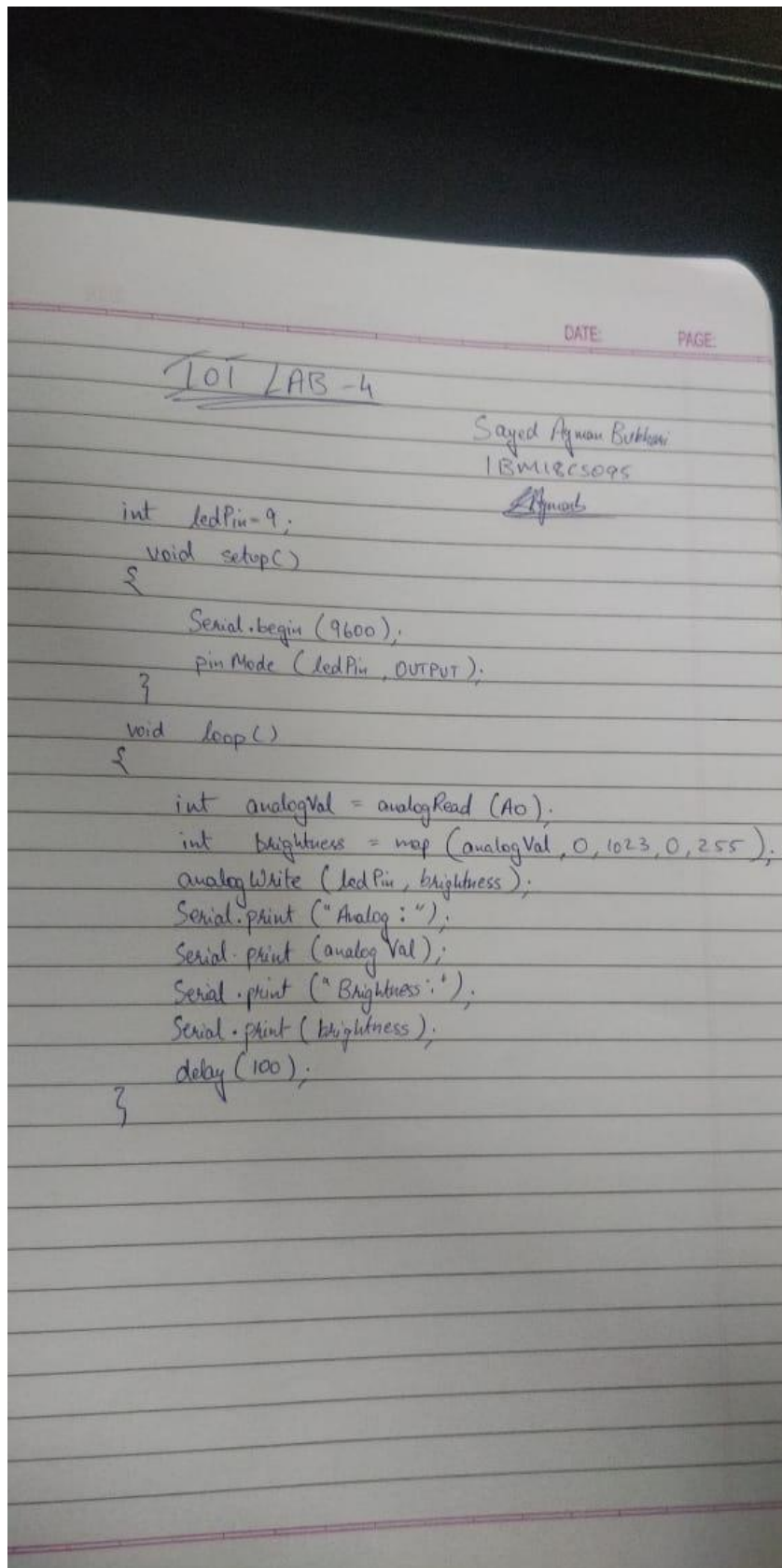
Hardware Required :

- Arduino Uno Board
- LED bulb
- Potentiometer

Circuit Diagram :



Written Code :



## LAB-4

Sayed Agman Bukhari  
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Signature

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

### Observation /Output :

The brightness of the LED bulb increased/decreased upon turning the potentiometer knob..