# Potentiometer

(4)

Aim :- led decreases/increases gradually when the potentiometer is turned.

Hardware required :-

1. Arduino board

2. breadboard

3. Jumper wires

4. potentiometer

5. Resistor 100 ohm

6. Arduino USB 2.0 data cable

**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);
}
```

**Circuit diagram :-**