

```
int LEDpin=9;//declare led pin to be arduino pin 9

int potpin=A0;// declare potpin to be analog pin A0

int readvalue;

float writevalue;

void setup() {

  Serial.begin(9600);

  pinMode(LEDpin,OUTPUT);

  pinMode(potpin,INPUT);

}

void loop() {

  readvalue=analogRead(potpin);

  writevalue=(255./1023.)*readvalue;

  analogWrite(LEDpin,writevalue);

  Serial.print("You are writing a value of ");

  Serial.println(writevalue);

}
```