

...lmknapp/Dropbox/Contracting/Teaching/Workshop Weekend-Arduino/WWA Code/startercode/MK Code V2/Pot_to_LED/Pot_to_LED.ino

```
1  /*
2   Adapted From: Analog Input by David Cuartielles and Tom Igoe
3   Author: Malcolm Knapp
4   Project: Poteniemter to Blink Rate
5   Date: 4/10/14
6   Version: 0.1
7   Description: This code shows how to use a potenometer to control
8               the blink rate of a LED.
9
10  */
11  // ----- included libraries -----
12  // None - include new libraries here
13
14  // ----- hardware pin defines -----
15  int sensorPin = A0;    // select the input pin for the potentiometer
16  int ledPin = 13;      // select the pin for the LED
17
18  // ----- variable initialization -----
19  int sensorValue = 0;  // variable to store the value coming from the sensor
20  int delayTime = 0;   //
21  int scaling = 1;
22
23  // ----- library initialization -----
24  // None - initialize new libraries here
25
26  void setup() {
27    Serial.begin(9600);
28    // declare hardware connections
29    pinMode(ledPin, OUTPUT);
30  }
31
32  void loop() {
33    // Input
34    sensorValue = analogRead(sensorPin);
```



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```
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3   Author: Malcolm Knapp
4   Project: Poteniemter to Blink Rate
5   Date: 4/10/14
6   Version: 0.1
7   Description: This code shows how to use a light sensor to control
8               the blink rate of a LED.
9
10  */
11  // ----- included libraries -----
12  // None - include new libraries here
13
14  // ----- hardware pin defines -----
15  int sensorPin = A0;    // select the input pin for the potentiometer
16  int ledPin = 13;      // select the pin for the LED
17
18  // ----- variable initialization -----
19  int sensorValue = 0;  // variable to store the value coming from the sensor
20  int delayTime = 0;   //
21  int scaling = 1;
22  int maxValue = 300;
23  int minValue = 750;
24
25  // ----- library initialization -----
26  // None - initialize new libraries here
27
28  void setup() {
29    Serial.begin(9600);
30    // declare hardware connections
31    pinMode(ledPin, OUTPUT);
32  }
33
34  void loop() {
35    // Input
36    sensorValue = analogRead(sensorPin);
```

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```
35 // Debugging
36 Serial.println(sensorValue);
37
38 // Processing
39 // Scaling
40 delayTime = scaling*sensorValue;
41
42 // Modes
43 // None - put new modes here
44
45 // Output
46 digitalWrite(ledPin, HIGH); // turn the ledPin on
47 delay(delayTime);
48 digitalWrite(ledPin, LOW); // turn the ledPin off:
49 delay(delayTime);
50 }
```

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```
37 // Debugging
38 Serial.print("Sensor value: "); Serial.println(sensorValue);
39
40
41 // Processing
42 //Scaling
43 int delayTime = map (sensorValue, minValue-1, maxValue, 0, 1023);
44 Serial.print ("Delay in milliseconds: "); Serial.println (delayTime);
45 // Modes
46 // None - put new modes here
47
48 // Output
49 digitalWrite(ledPin, HIGH); // turn the ledPin on
50 delay(delayTime);
51 digitalWrite(ledPin, LOW); // turn the ledPin off:
52 delay(delayTime);
53 }
```