

# Oficina de Programação utilizando a plataforma Arduino

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Programa de Educação Tutorial  
Computando Culturas em Equidade  
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Está na apostila. Virem-se!

Verificar e fazer *upload*!

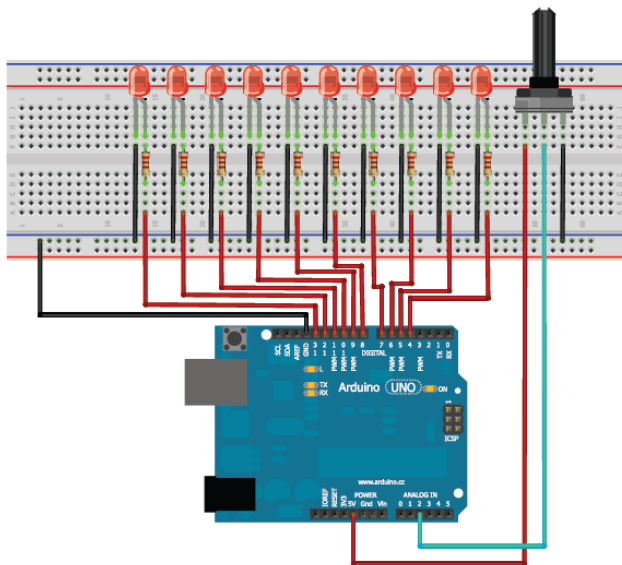
```
1 // Iluminacao Sequencial
2
3 byte ledPin[] = {4, 5, 6, 7, 8, 9, 10, 11, 12, 13};
4 int ledDelay(65);
5 int direction = 1;
6 int currentLED = 0;
7 unsigned long changeTime;
8
9 void setup() {
10     for (int x=0; x<10; x++) {
11         pinMode(ledPin[x], OUTPUT);
12     }
13     changeTime = millis();
14 }
15
16 void loop() {
17     if ((millis() - changeTime) > ledDelay) {
18         changeLED();
19         changeTime = millis();
```

## Código II

```
20     }
21 }
22
23 void changeLED() {
24     for (int x=0; x<10; x++) {
25         digitalWrite(ledPin[x], LOW);
26     }
27
28     digitalWrite(ledPin[currentLED], HIGH);
29
30     currentLED += direction;
31
32     if (currentLED == 9) {direction = -1;}
33     if (currentLED == 0) {direction = 1;}
34 }
```

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# Interagindo com a sequência de LEDs



Made with  Fritzing.org



```
1  byte ledPin[] = {4, 5, 6, 7, 8, 9, 10, 11, 12, 13};
2  int ledDelay; // intervalo
3  int direction = 1;
4  int currentLED = 0;
5  unsigned long changeTime;
6  int potPin = 2;
7
8  void setup() {
9      for (int x=0; x<10; x++) {
10         pinMode(ledPin[x], OUTPUT);
11     }
12     changeTime = millis();
13 }
14
15 void loop() {
16     ledDelay = analogRead(potPin);
17
18     if ((millis() - changeTime) > ledDelay) {
19         changeLED();
```

# Código II

```
20         changeTime = millis();
21     }
22 }
23
24 void changeLED() {
25     for (int x=0; x<10; x++) {
26         digitalWrite(ledPin[x], LOW);
27     }
28
29     digitalWrite(ledPin[currentLED], HIGH);
30
31     currentLED += direction;
32
33     if (currentLED == 9) {direction = -1;}
34     if (currentLED == 0) {direction = 1;}
35 }
```