

PROJETO MENINAS NA ENGENHARIA

ELETRÔNICA

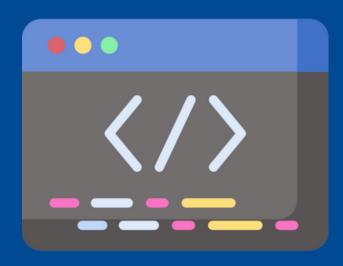


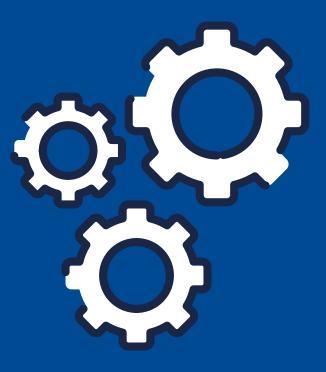




Principais Atividades

- Continuar o uso do TinkerCAD;
- Programar um novo circuito.

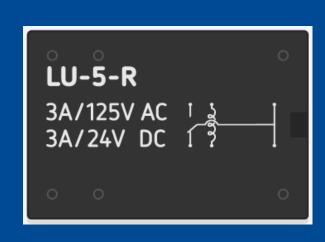




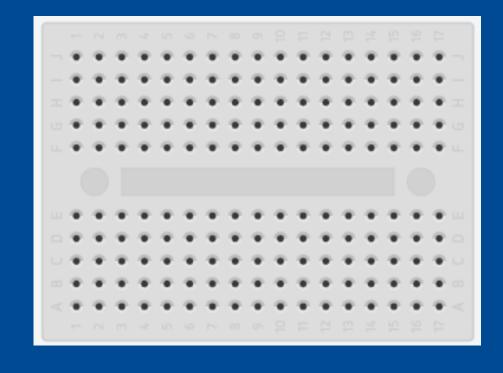
Usando Tinkercad

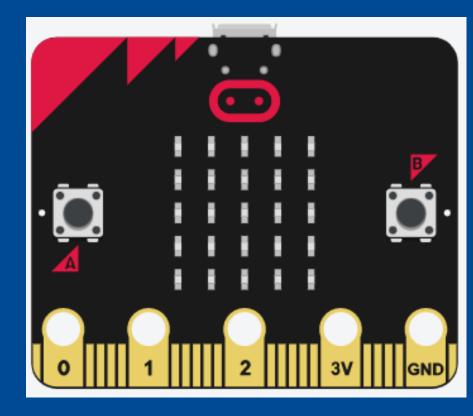
- Lista de Componentes:
 - Lâmpada
 - Relé SPDT
 - Bateria de 1.5 V
 - Micro:bit
 - Placa de ensaio mini



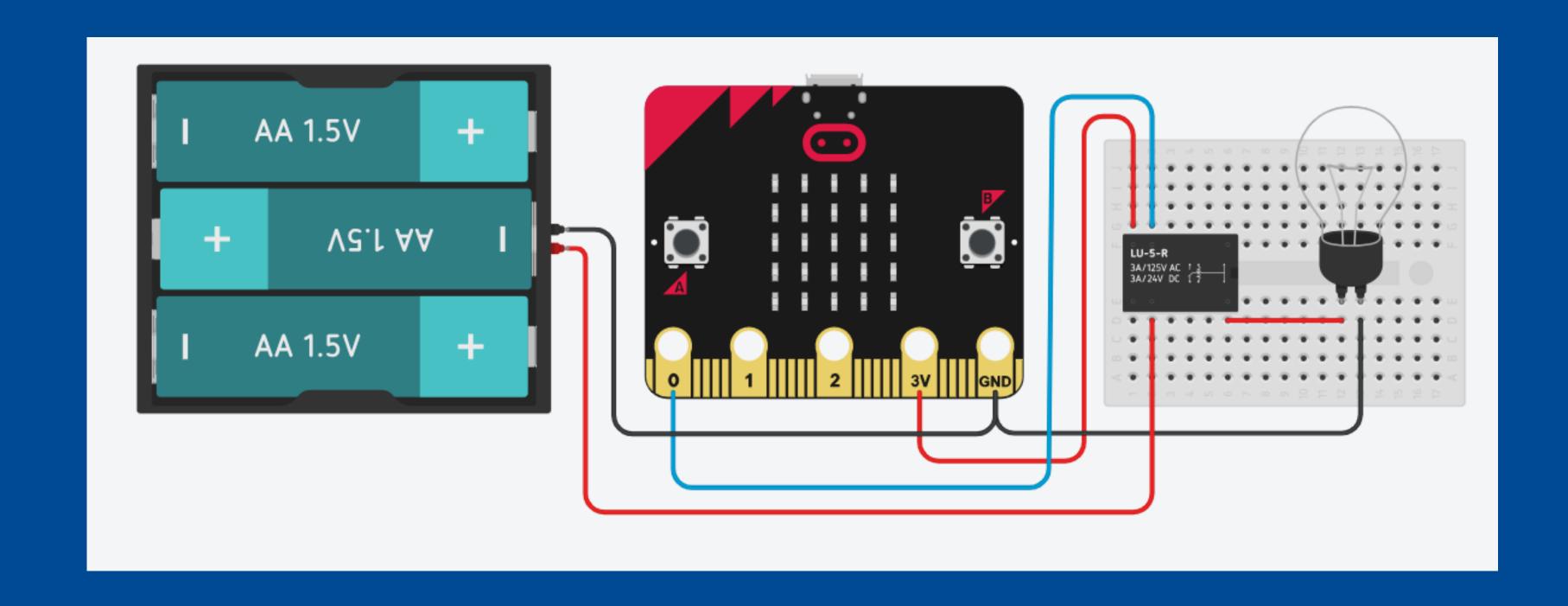








Circuito: Relé e Lâmpada,



Atividade 1

Escreva um código em Python para acender a Lâmpada quando o Relé for acionado.



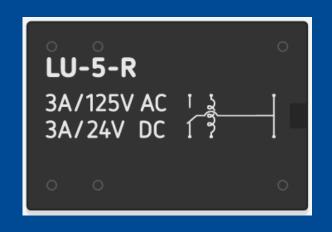


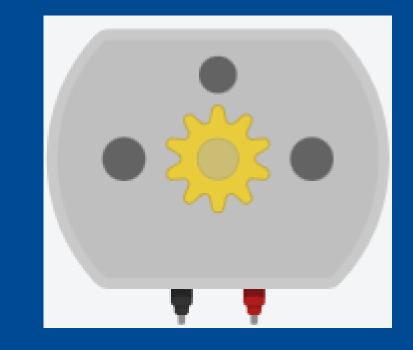
Resposta da atividade 1

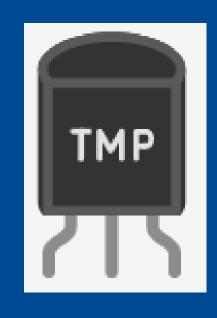
```
1 (micro:bit)
Texto
1 # Python code
3 def on forever():
    pins.digital_write_pin(DigitalPin.P0, 0)
    basic.pause(2000)
    pins.digital write pin(DigitalPin.P0, 1)
    basic.pause(1000)
  basic.forever(on forever)
```

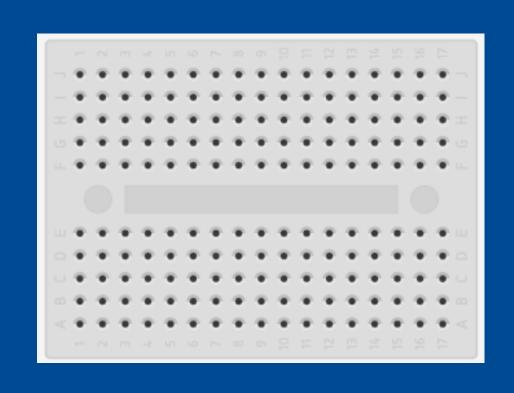
Usando Tinkercad

- Lista de Componentes:
 - Motor CC
 - Relé SPDT
 - Bateria de 1.5 V
 - Micro:bit
 - Sensor de temperatura
 - Placa de ensaio mini



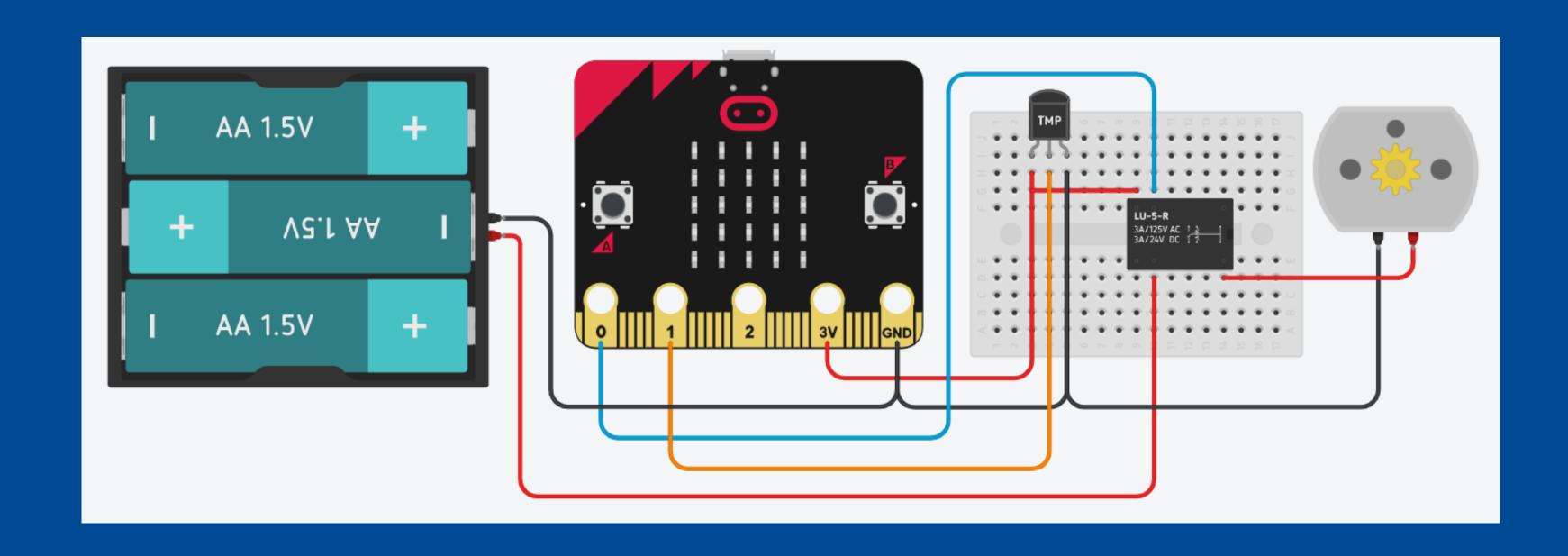








Circuito: Relé, Sensor de Temperatura e Motor CC



Atividade 2

Escreva um código em Python para ligar o motor CC quando o sensor de temperatura detectar mais de 45°C.





Resposta da atividade 2

```
Texto
                                                  1 (micro:bit)
   # Python code
    Sensor=0
    Temp=0
    def on forever():
     global Sensor
     global Temp
     Sensor = pins.analog read pin(AnalogPin.Pl)
      Sensor*=5
      Sensor/=1024
     Sensor-=0.5
     Temp= Sensor*100
     if Temp <= 45:
       pins.digital write_pin(DigitalPin.P0, 0)
15
16
     else:
17
        pins.digital write pin(DigitalPin.P0, 1)
     basic.pause (500)
18
    basic.forever(on forever)
```

Obrigada!

