

Internet de las Cosas

Prácticas Temperatura



Rogelio Ferreira Escutia

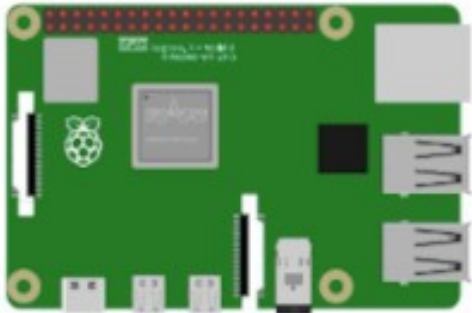
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Temperatura

Material

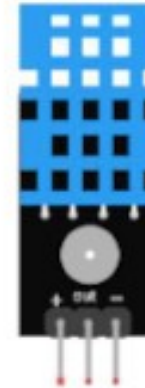
1 * Raspberry Pi



1 * T-Extension Board



1 * DHT-11



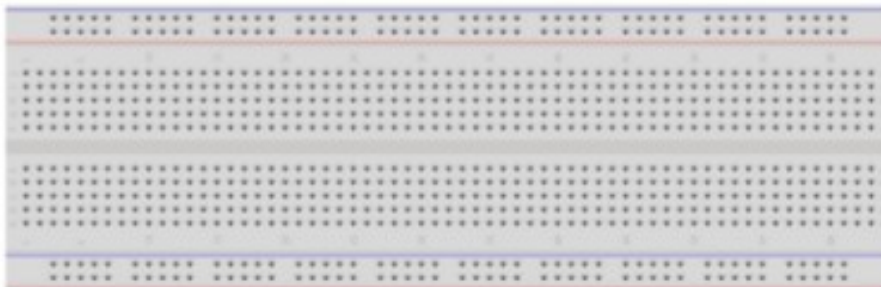
1 * 40-pin Cable



Several Jumper Wires



1 * Breadboard



1 * Resistor 10K Ω



Sensor de Temperatura

- DHT11



DHT11

- Con resistencia interna (3 pines) y sin resistencia (4 pines):

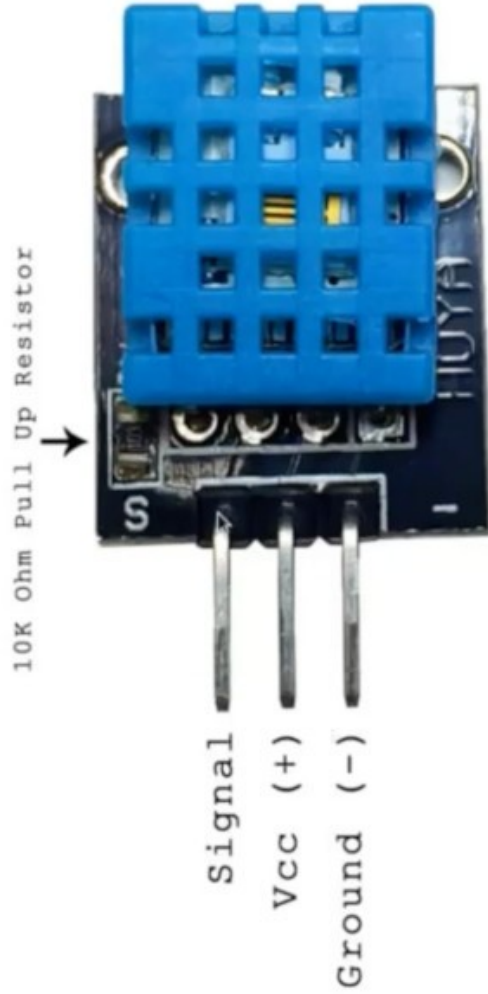
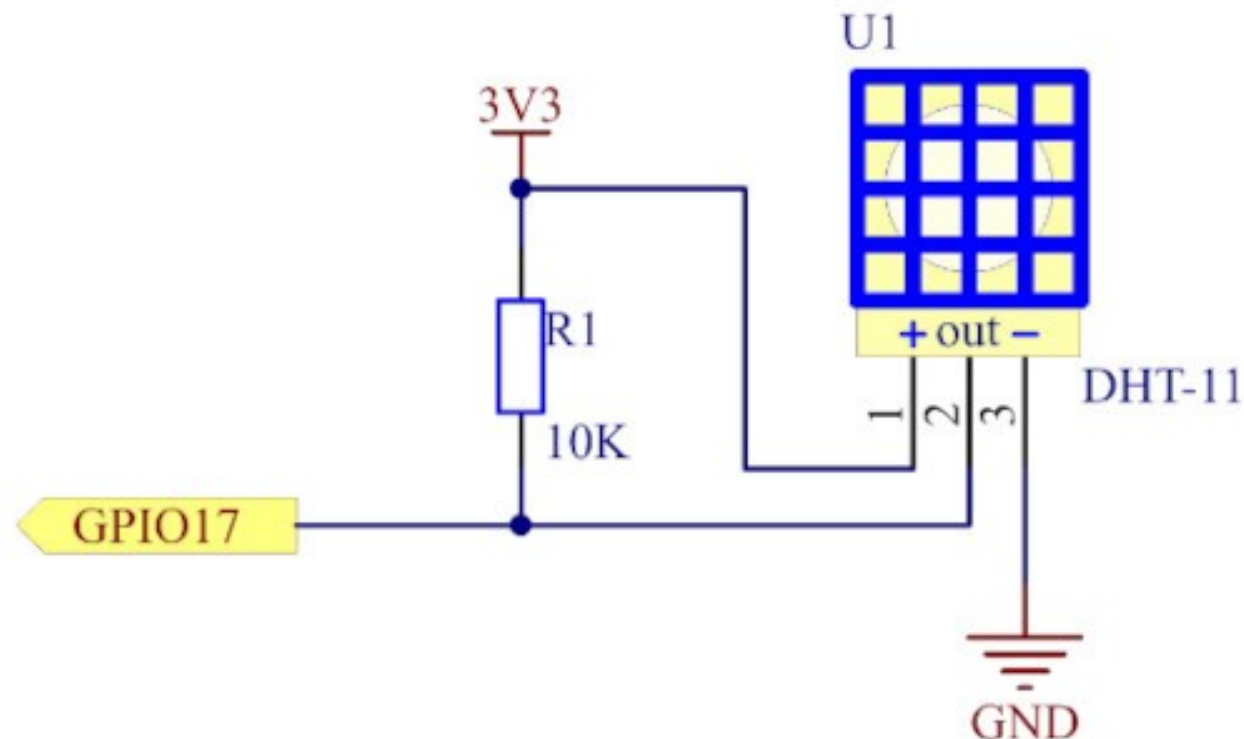


Diagrama eléctrico

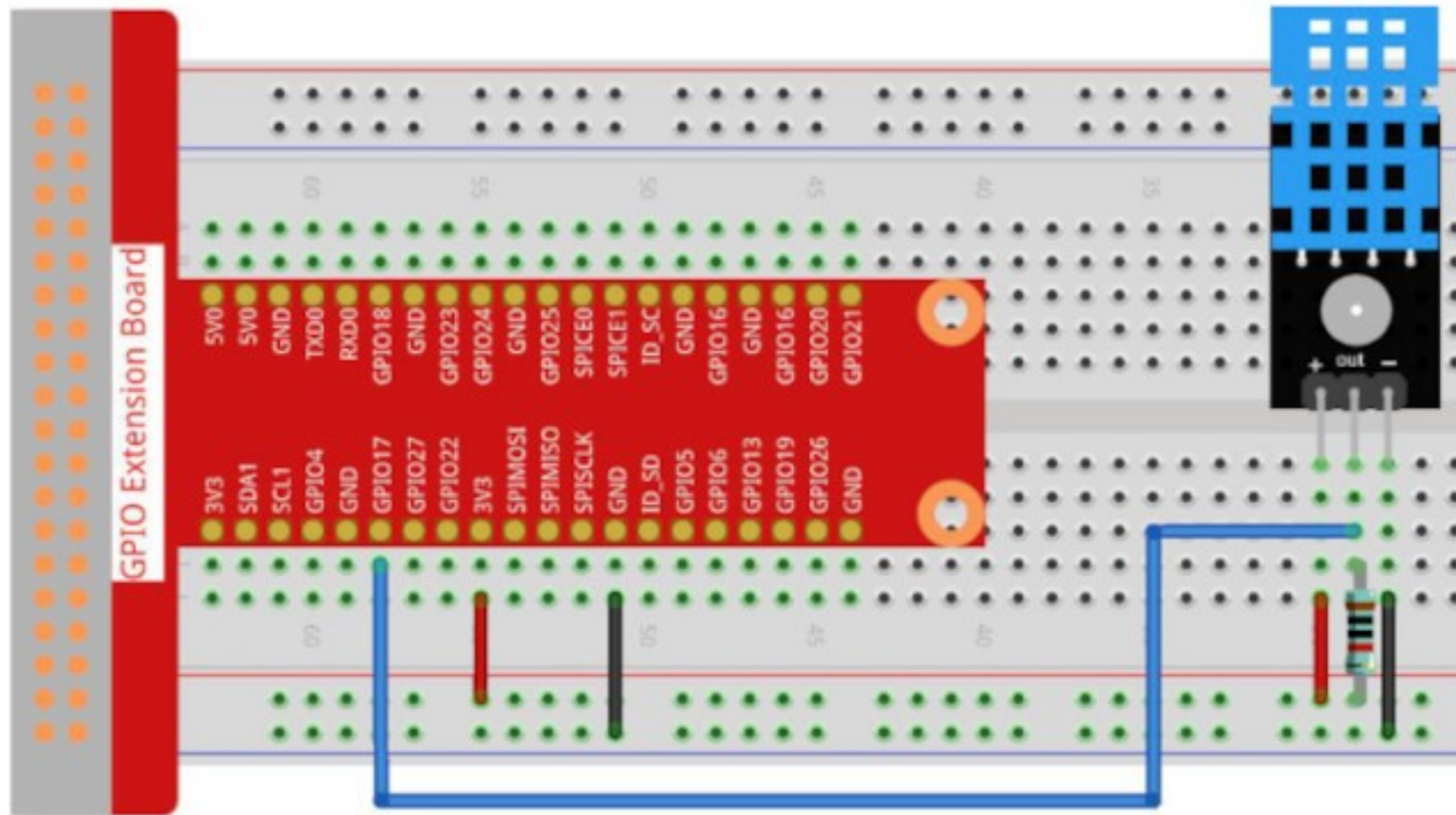
- DHT11

T-Board Name	physical	wiringPi	BCM
GPIO17	Pin 11	0	17



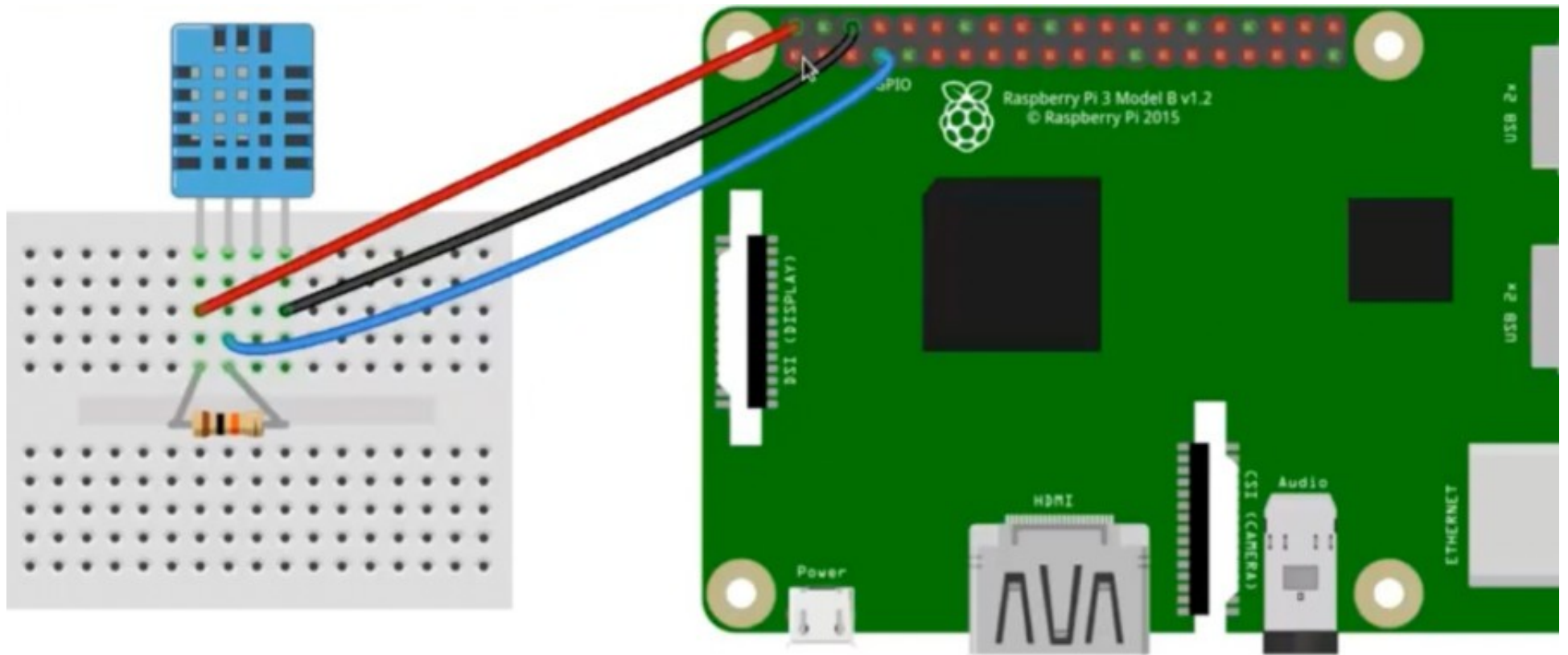
Conexión

- DHT11



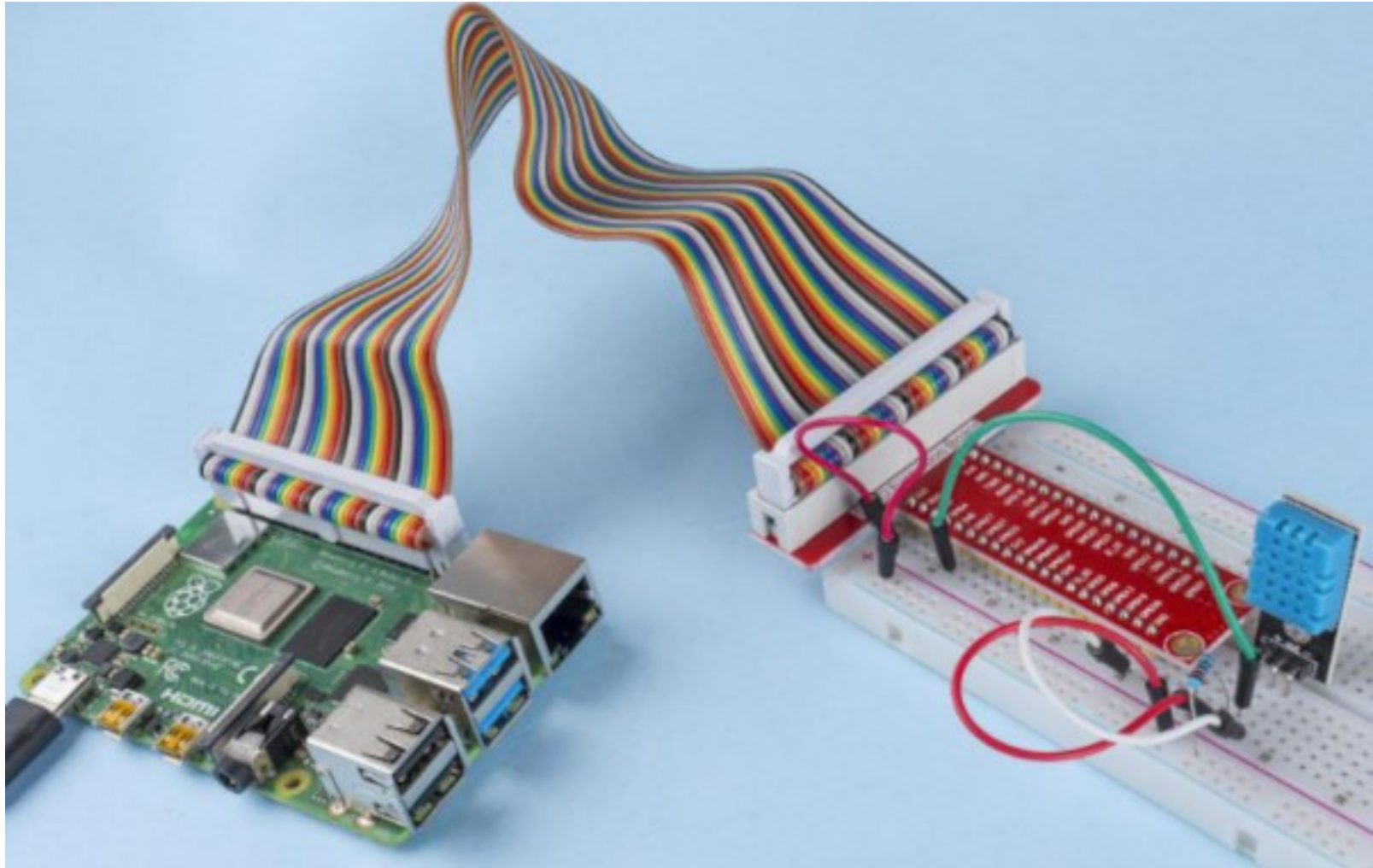
Conexión

- DHT11



Conexión

- DHT11



Código

- **DHT11**

```
import Adafruit_DHT
import time

DHT_SENSOR = Adafruit_DHT.DHT11
DHT_PIN = 4

while True:
    humidity, temperature = Adafruit_DHT.read(DHT_SENSOR, DHT_PIN)
    if humidity is not None and temperature is not None:
        print("Temp={0:0.1f}C Humidity={1:0.1f}%".format(temperature, humidity))
    else:
        print("Sensor failure. Check wiring.");
    time.sleep(3);
```



Salida en pantalla

- DHT11

```
[pi@raspberrypi:~ $ python3 mydht11.py  
Temp=25.0C Humidity=43.0%  
Temp=25.0C Humidity=43.0%  
Temp=25.0C Humidity=43.0%  
Temp=25.0C Humidity=43.0%  
Temp=25.0C Humidity=43.0%  
Temp=25.0C Humidity=43.0%  
Temp=25.0C Humidity=43.0%  
Temp=25.0C Humidity=43.0%  
Temp=25.0C Humidity=43.0%  
█
```



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