

Internet de las Cosas

Prácticas Led



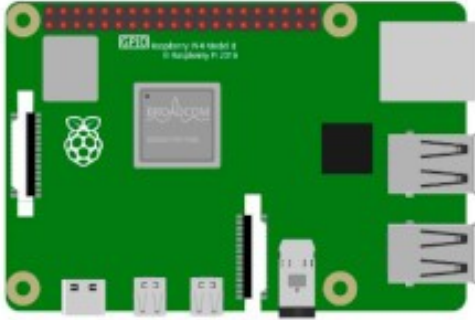




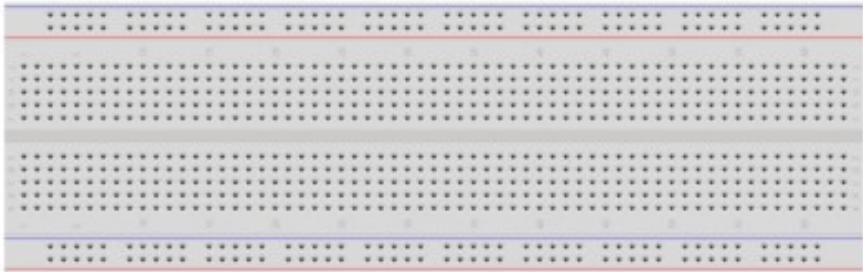

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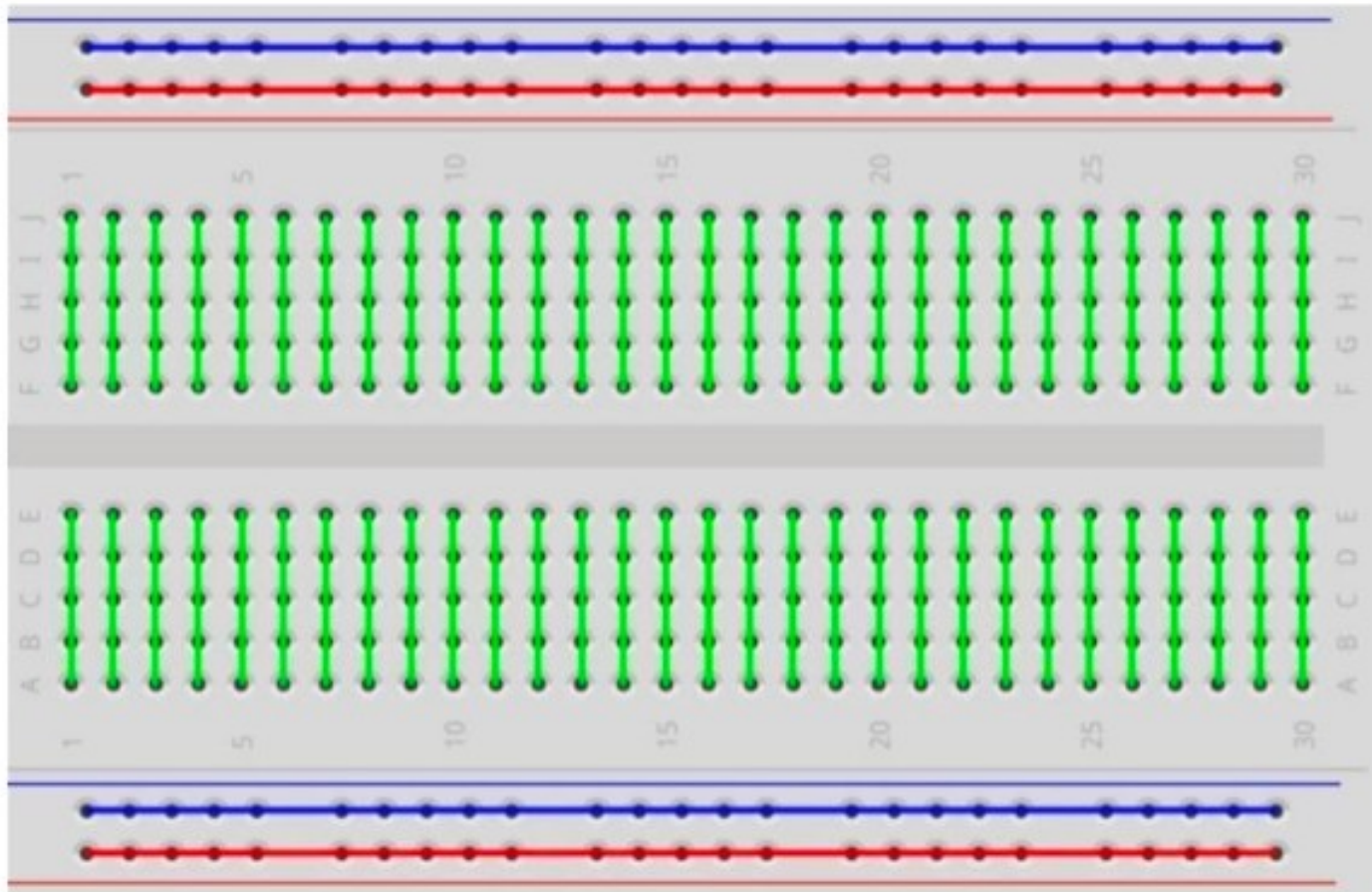
Temperatura

Material

<p>1 * Raspberry Pi</p> 	<p>1 * T-Extension Board</p> 	<p>1 * LED</p> 
<p>1 * 40-pin Cable</p> 	<p>Several Jumper Wires</p> 	
<p>1 * Breadboard</p> 	<p>1 * Resistor(220Ω)</p> 	

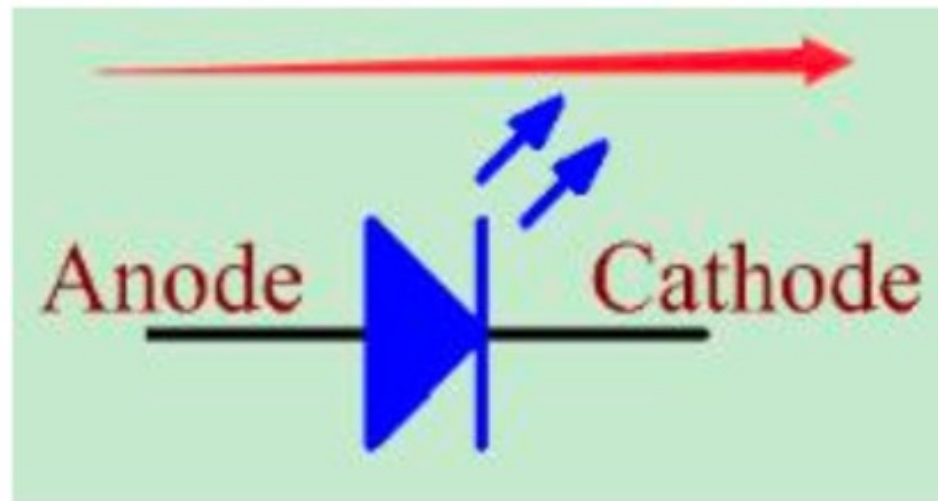
Protoboard

- **Conexiones internas:**



Led

- Símbolo:



Resistencia

- Símbolo:

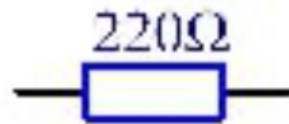
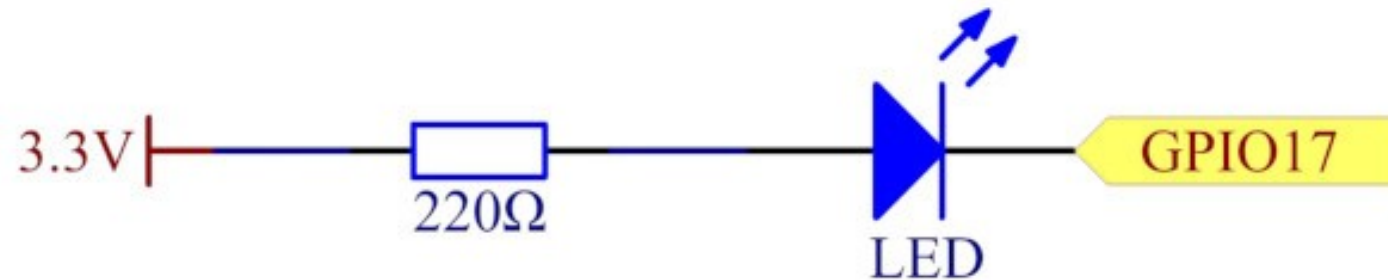


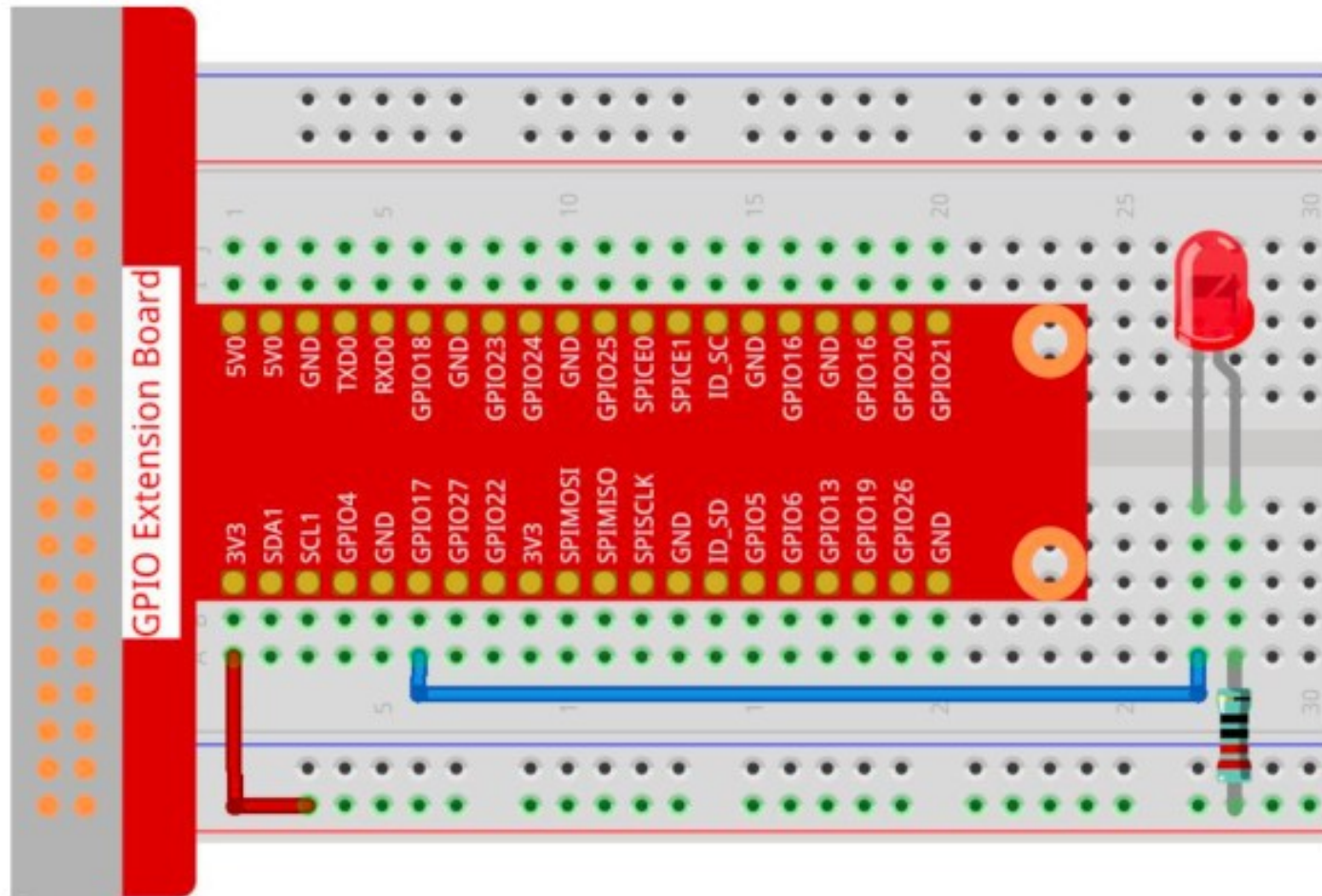
Diagrama eléctrico

- Prender un led:



Conexión

- Prender un led:



Código

■ Parte 1:

```
#!/usr/bin/env python3
import RPi.GPIO as GPIO
import time
LedPin = 17
def setup():
    # Set the GPIO modes to BCM Numbering
    GPIO.setmode(GPIO.BCM)
    # Set LedPin's mode to output, and initial level to High(3.3v)
    GPIO.setup(LedPin, GPIO.OUT, initial=GPIO.HIGH)
# Define a main function for main process
def main():
    while True:
        print ('...LED ON')
        # Turn on LED
        GPIO.output(LedPin, GPIO.LOW)
        time.sleep(0.5)
        print ('LED OFF...')
        # Turn off LED
        GPIO.output(LedPin, GPIO.HIGH)
        time.sleep(0.5)
# Define a destroy function for clean up everything after the script finished
def destroy():
    # Turn off LED
```

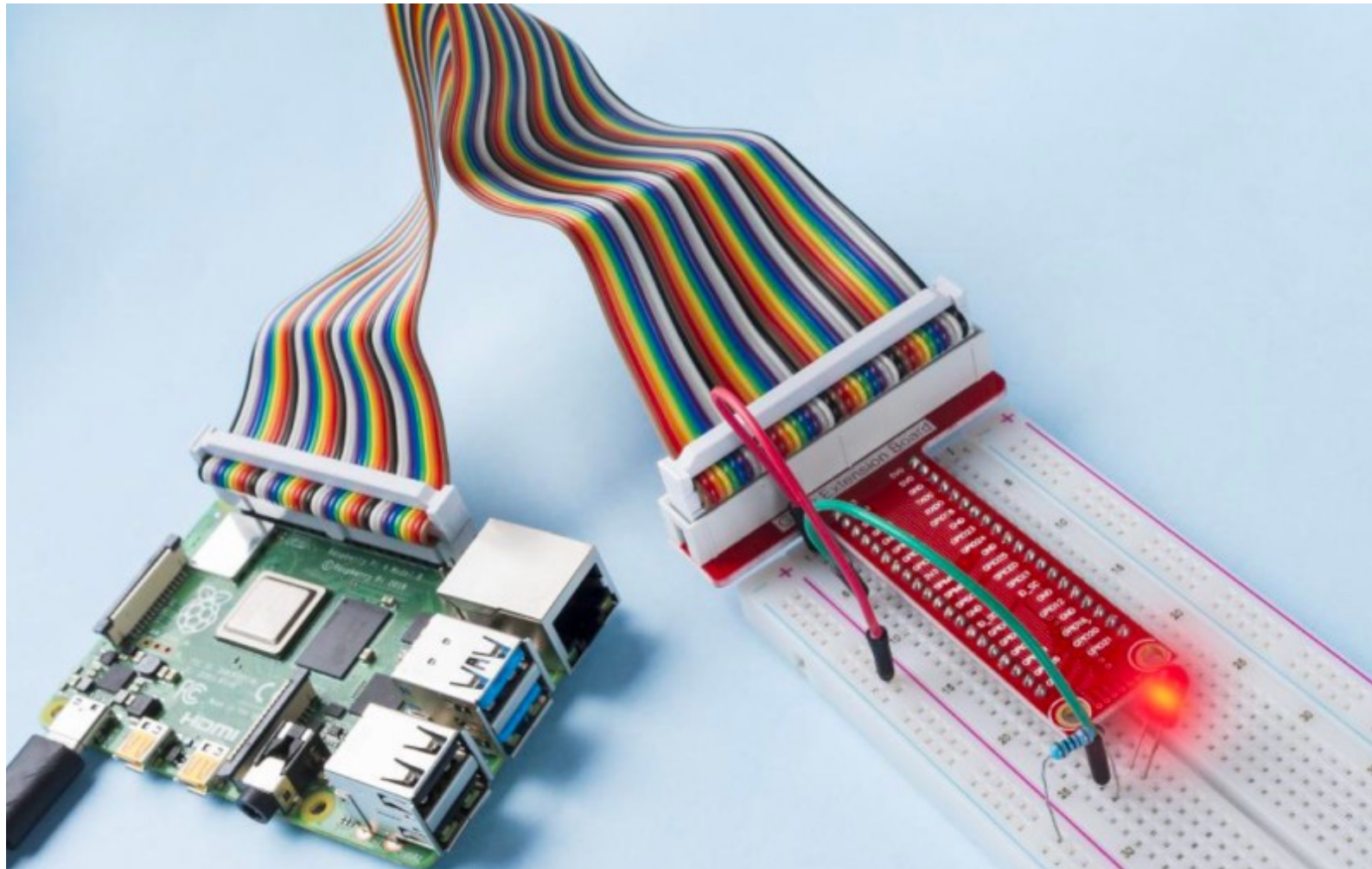
Código

- **Parte 2:**

```
GPIO.output(LedPin, GPIO.HIGH)
# Release resource
GPIO.cleanup()
# If run this script directly, do:
if __name__ == '__main__':
    setup()
    try:
        main()
    # When 'Ctrl+C' is pressed, the program destroy() will be executed.
    except KeyboardInterrupt:
        destroy()
```

Conexión

- Prender un led:





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