

Flash the LED Ex1

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Introduction

In our first Micro Python example, we saw how to turn on and off the onboard LED on the Pi Zero. But what is really cool to do is to flash the LED on and off. This means we can use the LED as an indicator of an error, or that something is running etc.

Lets write some more code in Thonny

A screenshot of the Thonny IDE interface. The top window shows a Python script named 'led_flash_chatgpt.py' with the following code:

```
2 from picozero import pico_led
3
4 # Import the time module for delays
5 from time import sleep
6
7 # Create an LED object for the onboard LED
8 led = pico_led
9
10 # Run forever
11 while True:
12
13     # Turn the LED on
14     led.on()
15
16     # Wait for 0.25 second
17     sleep(0.25)
18
19     # Turn the LED off
```

The bottom window is a shell terminal showing the MicroPython environment:

```
MicroPython v1.28.0 on 2026-04-06; Raspberry Pi Pico with RP2040
Type "help()" for more information.
>>>
```

The status bar at the bottom indicates 'MicroPython (Raspberry Pi Pico) • Board CDC @ COM4'.

Here is the full Micro Python code that we are using.

[download](#)

```
# Import the picozero LED class
from picozero import pico_led

# Import the time module for delays
from time import sleep
```

```
# Create an LED object for the onboard LED
led = pico_led

# Run forever
while True:

    # Turn the LED on
    led.on()

    # Wait for 0.25 second
    sleep(0.25)

    # Turn the LED off
    led.off()

    # Wait for 0.25 second
    sleep(0.25)
```

In this code we are using a **Loop**. The While True: runs forever, and loops around the four lines of code. The comments should make this Micro Python code very easy to understand.

Here we can see there is an on time of 0.25 seconds and an off time of 0.25 seconds, so each on/off cycle is 0.5 seconds so every second the LED goes on and off twice.

[led-flash-001.mp4](#)

We will explore a simpler way to achieve a flashing LED in another example.

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