key control LED

1. Learning purpose

1. Learn how to use pins on the Raspberry Pi Pico board.
2. Learn how to control LED light on the Raspberry Pi Pico board by button.

2. Hardware construction

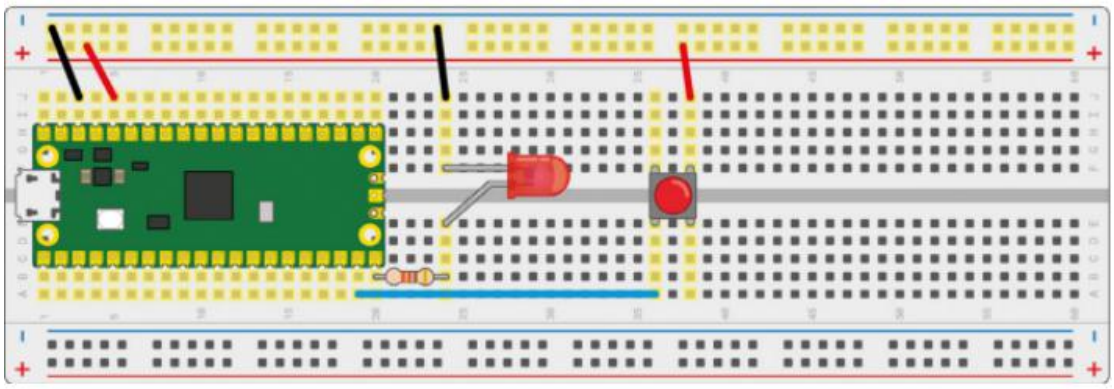
List:

LED light*1

Button*1

220Ωresistor *1

The circuit wiring diagram is shown below.



3. About code

Thonny programming

```
import machine
import utime
led_external = machine.Pin(15, machine.Pin.OUT)
button = machine.Pin(14, machine.Pin.IN)
while True:
    if button.value() == 1:
        led_external.value(1)
        utime.sleep(2)
    led_external.value(0)
```

Program explanation:

import machine

This machine library contains the instructions needed by MicroPython to communicate with Pico and other devices.

import utime

This library handles all things related to time.

led_external = machine.Pin(15, machine.Pin.OUT)

Set IO15 as an output pin.

button = machine.Pin(14, machine.Pin.IN)
Set O14 as an input pin.

button.value()
Get the value of the button pin.

led_external.value(1)
Set LED pin as an input pin.

utime.sleep(2)
Call the sleep function from the utime library, unit: s.

4. Experimental phenomenon

After the program is downloaded, when we press button, LED light will be opened 2s.