

1. LED Blink

Import RPi.GPIO as GPIO

Import time

GPIO.setwarnings(False)

GPIO.setmode(GPIO.BCM)

GPIO.setup(4, GPIO.OUT)

While True:

GPIO.output(4, GPIO.HIGH) # Turn LED ON

Time.sleep(1) # Wait 1 second

GPIO.output(4, GPIO.LOW) # Turn LED OFF

Time.sleep(1) # Wait 1 second

2. Buzzer Control

Import RPi.GPIO as GPIO

Import time

GPIO.setwarnings(False)

GPIO.setmode(GPIO.BCM)

BUZZER = 23

buzzState = False

GPIO.setup(BUZZER, GPIO.OUT)

While True:

```
buzzState = not buzzState # Toggle buzzer state
```

```
GPIO.output(BUZZER, buzzState)
```

```
Time.sleep(1) # Wait 1 second
```

3. LED Toggle

```
Import RPi.GPIO as GPIO
```

```
Import time
```

```
# Set up the GPIO mode
```

```
GPIO.setmode(GPIO.BCM)
```

```
# Define the GPIO pins for LEDs
```

```
LED1_PIN = 17
```

```
LED2_PIN = 27
```

```
# Set up the GPIO pins as outputs
```

```
GPIO.setup(LED1_PIN, GPIO.OUT)
```

```
GPIO.setup(LED2_PIN, GPIO.OUT)
```

Try:

While True:

```
# Turn on LED1 and turn off LED2
```

```
GPIO.output(LED1_PIN, GPIO.HIGH)
```

```
GPIO.output(LED2_PIN, GPIO.LOW)
```

```
Print("LED1 ON, LED2 OFF")
```

```
Time.sleep(1)
```

```
# Turn off LED1 and turn on LED2
```

```
GPIO.output(LED1_PIN, GPIO.LOW)
```

```
GPIO.output(LED2_PIN, GPIO.HIGH)
```

```
Print("LED1 OFF, LED2 ON")
```

```
Time.sleep(1)
```

Except KeyboardInterrupt:

```
# Clean up the GPIO settings before exiting
```

```
GPIO.cleanup()
```

```
Print("Program exited cleanly")
```