

## Lesson 4 Buzzer Control

### 1. Preparation

There is a buzzer on the Raspberry Pi expansion board, as shown in the figure below:



### 2. Working Principle

Raspberry Pi expansion board uses active buzzer. Control the buzzer to make sound through setting high and low level.

The source code of program is located in  
`/home/pi/TonyPi/HiwonderSDK/BuzzerControlDemo.py`

```
25 Board.setBuzzer(0) # Close
26
27 Board.setBuzzer(1) # Open
28 time.sleep(0.1) # Delay
29 Board.setBuzzer(0) # Close
30
31 time.sleep(1) # Delay
32
33 Board.setBuzzer(1)
34 time.sleep(0.5)
35 Board.setBuzzer(0)
```

Buzzer is mainly controlled by `setBuzzer()` function in Board library. The parameter in parentheses represents the level status. "1" represents high level and "0" represents low level.

### 3. Operation Steps

1) Click the icon shown below to enter the LX terminal command line.



2) Enter the command "`cd TonyPi/Example/`" in the interface and press "Enter" to switch to the directory where the routine is located.

```
pi@raspberrypi:~ $ cd TonyPi/Example/
pi@raspberrypi:~/TonyPi/Example $
```

3) Input command "**`sudo python3 BuzzerControlDemo.py`**" and press "Enter" to control the buzzer.

```
pi@raspberrypi: ~/TonyPi/HiwonderSDK
File Edit Tabs Help
pi@raspberrypi:~/TonyPi/HiwonderSDK $ sudo python3 BuzzerControlDemo.py
*****
*****Function:Hiwonder TonyPi expansion board, serial servo control routine.
buzzer control routine*****
*****
-----
Official website:http://www.hiwonder.com
Online mall:https://huaner.tmall.com/
-----
The following commands need to be used in the LX terminal, which can be opened b
y ctrl+alt+t, or click
Click the black LX terminal icon in the upper bar
-----
Usage:
    sudo python3 BuzzerControlDemo.py
-----
Version: --V1.1  2020/08/25
-----
Tips:
* Press Ctrl+C to close the program, if it fails, please try multiple times!
-----
```

4) Press "Ctrl+C" can close the program.

## 4. Project outcome

Starting the program, the buzzer on the expansion board will beep with a short beep firstly, and then end with a long beep.