

Lesson 14 Control Buzzer

1. Working Principle

By setting the high and low levels of buzzer, it can make sound after powering on. The source code of program is located in:

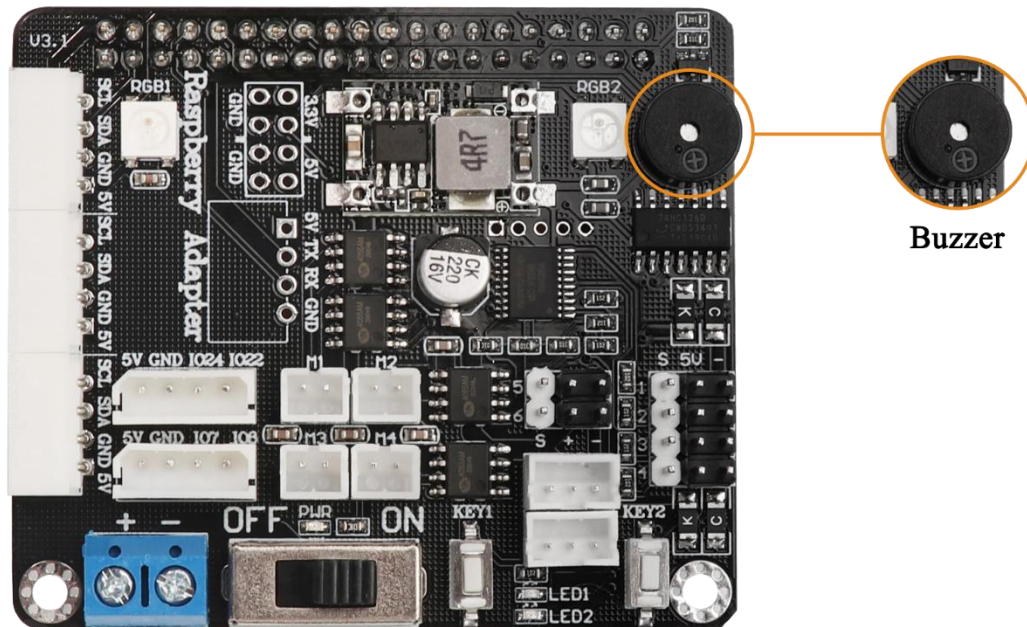
/home/ubuntu/armpi_pro/src/armpi_pro_demo/expansion_board_demo/buzzer_control_demo.py

```

1  #!/usr/bin/python3
2  # coding=utf8
3  # Date:2022/06/30
4  import sys
5  import time
6  import signal
7  import Board as Board
8
9  print("""
10 *****
11 *****Function: Hiwonder Raspberry Pi expansion board. Buzzer Control Routine*****
12 *****
13
14 -----
15 Official website:https://www.hiwonder.com
16 Online mall:https://hiwonder.tmall.com
17 -----
18 Tips:
19 * Press "Ctrl+C" to close the running program. If fail to close, please try several times!
20 -----
21 """)
22
23 if sys.version_info.major == 2:
24     print('Please run this program with python3!')
25     sys.exit(0)
26
27 #Process before closing
28 def stop(signum, frame):
29     Board.setBuzzer(0) # close buzzer
30
31 signal.signal(signal.SIGINT, stop)
32
33 if __name__ == '__main__':
34     #Buzzer sounds for 0.5s
35     Board.setBuzzer(1) # Set buzzer to make sound
36     time.sleep(0.5) # Delay 0.5 second
37     Board.setBuzzer(0) # Close buzzer
38
39 
```


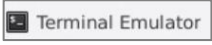
2. Preparation

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



3. Operation Steps

- 1) Please refer to the tutorial in “6.Raspberry Pi and Expansion Board Lessons/2.Raspberry Pi Expansion Board/Lesson 4 Set Environment Development” to remotely connect through NoMachine.

- 2) Open the terminal. Click  in the lower left corner and select  to enter the terminal.

- 3) In the opened interface, enter the command “cd armpi_pro/src/armpi_pro_demo/expansion_board_demo/” and press “Enter” to access to game programmings directory .

```
ubuntu@ubuntu:~$ cd armpi_pro/src/armpi_pro_demo/expansion_board_demo/
```

- 4) Then enter command “python3 Buzzer_Control.py” and press “Enter” to start the game.

```
ubuntu@ubuntu:~/armpi_pro/src/armpi_pro_demo/expansion_board_demo$  
python3 Buzzer_Control.py
```

- 5) If want to exit the program, you can press “Ctrl+C”. If fail to exit, please try it multiple times.

4. Project Outcome

When the program is running, the buzzer on the expansion board will sound for 0.5 seconds and then stop. Finally, exit the program automatically.