Lesson 13 Control Buzzer

1. Working Principle

Control the buzzer to sound after powering on by setting level.

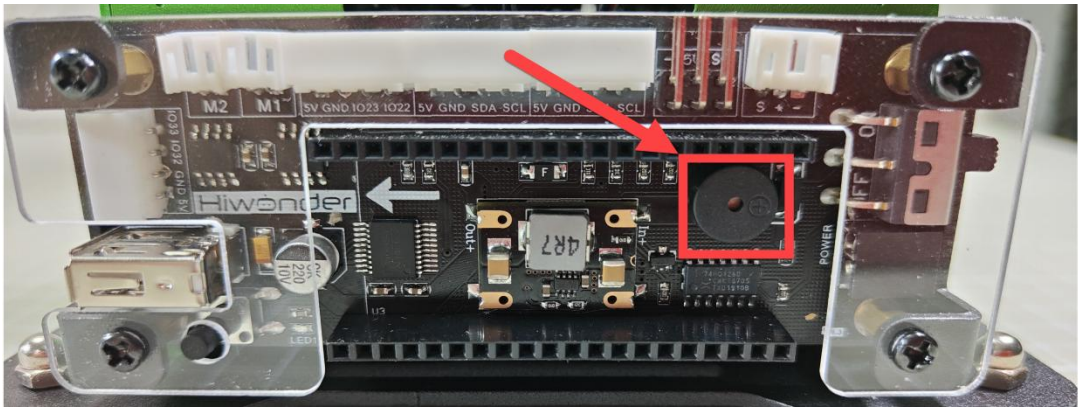
The path to the source code of the program is 5.Hardware Basic Learning/ Python Development/Program Files/Control Buzzer/main.py

```
import time
from Buzzer import Buzzer

# Control buzzer

buzzer = Buzzer()

if __name__ == '__main__':
    buzzer.setBuzzer(100)  # The buzzer is set to sound for 100ms
    time.sleep_ms(1000)    # The delay of 1000ms
    buzzer.setBuzzer(300)  # The buzzer is set to sound for 300ms
```

Set the sounding time of the buzzer by calling setBuzzer() function in the Buzzer library file. In the code “setBuzzer(100)”, “100” represents the sounding time and its unit is ms.

2. Preparation

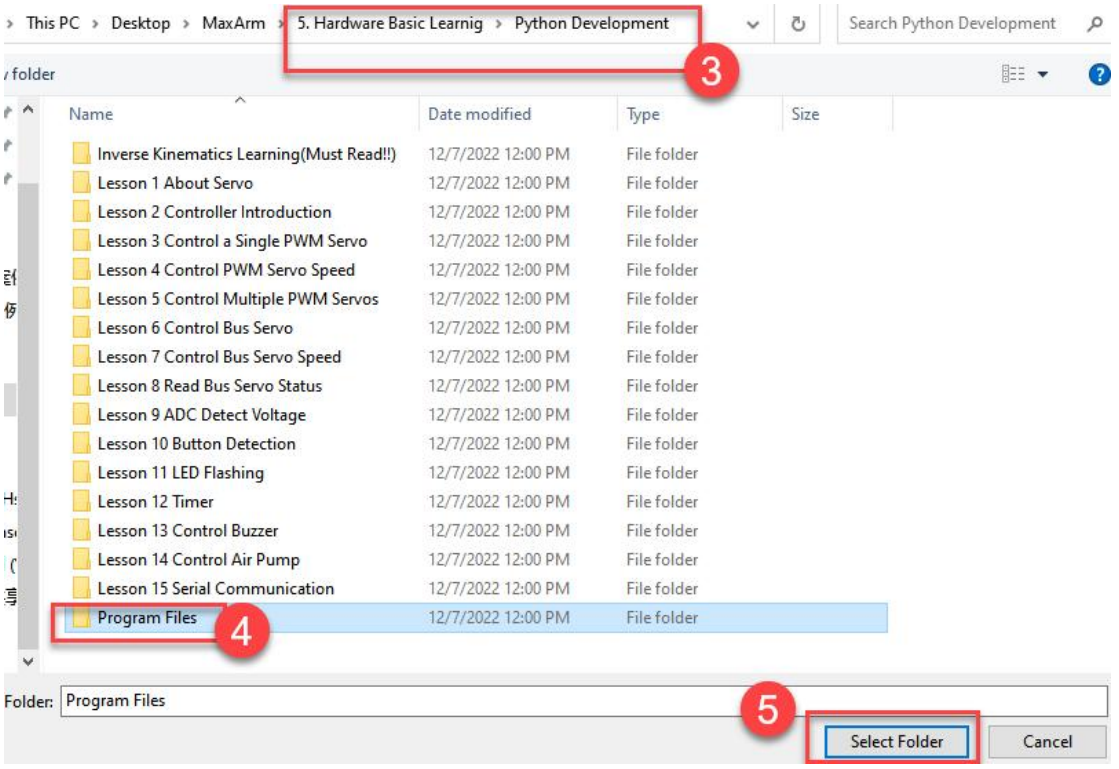
There is a buzzer on MaxArm controller, as shown in the figure below:



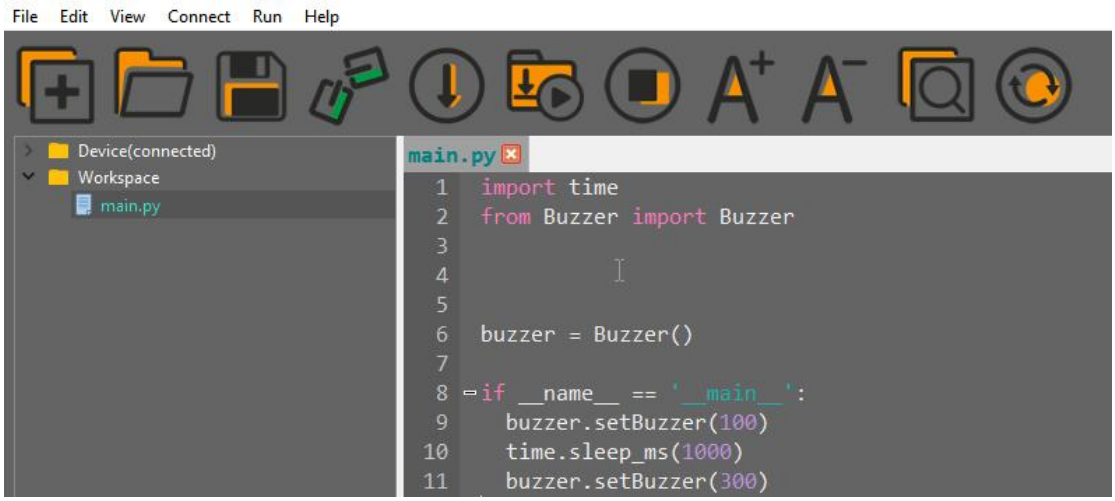
3. Operation Steps

1) Please connect MaxArm to Python editor according to the tutorial in folder “4. Underlying Program Learning/Python Development/Lesson 1 Set Development Environment”.

2) After connecting, change the path of Workspace to “5.Hardware Basic Learning/Python Development” and select “Program Files”.



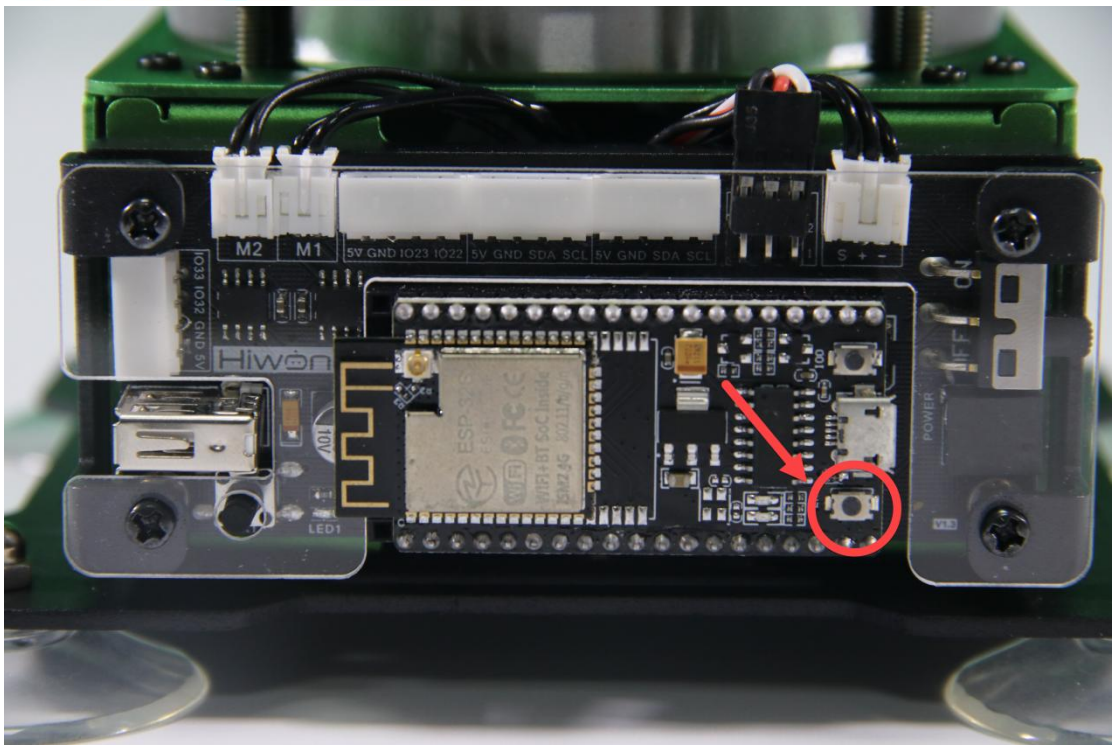
3) Double click the folder “Buzzer Control”, and then double click “main.py” to open program.



4) Click on the download icon to download program to ESP32 controller.

5) When the terminal prints the prompt, as shown in the image below, it means download completed.

6) After downloading, click on the reset icon or press the reset button on ESP32 controller to run program.



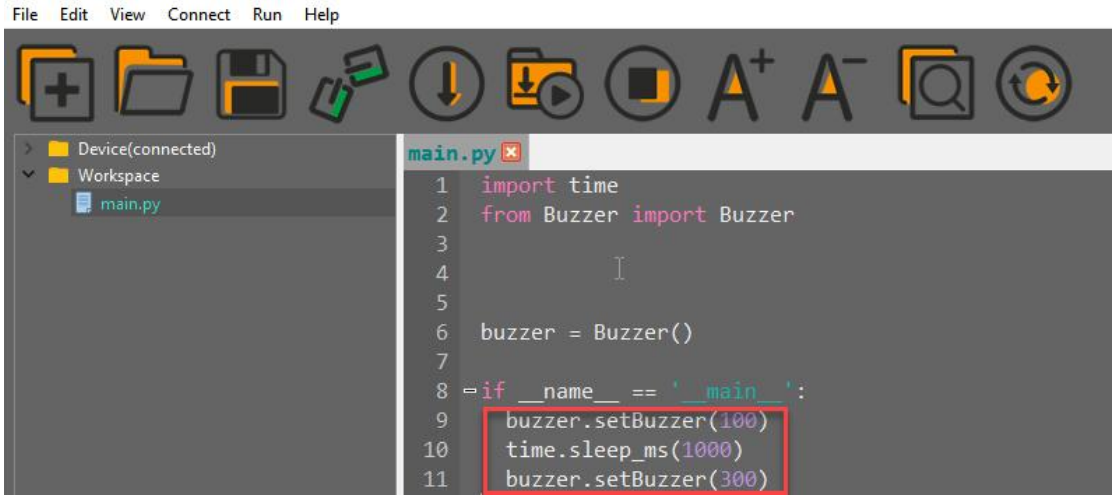
4. Project Outcome

When the program is running, the buzzer will sound for 0.1s first following by being silent for 2s, then sound for 0.3s. Finally, automatically exit the program.

5. Function Extension

The buzzer originally set in program will sound for 0.1s first following by being silent for 2s, then sound for 0.3s. If want to change the sounding time, you can modify the time parameter in setBuzzer() function. This section will change the time parameter 100 and 300 to 1000. The specific operation steps are as follow:

1) Find the following program code.



2) Change the time parameter 100 and 300 to 1000, as shown in the figure below:

3) After modifying, click on  icon to check grammar. In the mean time, the terminal will show the following prompt.

4) Click on  icon.

5) Refer to “Operation Steps 4-6” to download and run the program.