4. DIY thermometer

1. Learning goals

In this lesson, we will learn to use micro:bit to realize thermometer function.

2.Code and analysis

DIY thermometer.py

```
1 from microbit import *
2
3 while True:
4     value = temperature()
5     display.scroll(str(value))
6     sleep(500)
7
```

from microbit import *

This code is to import everything from the microbit library, and any program need to uses import this library.

temperature()

Return the temperature of the current microbit detection channel, in degrees Celsius.

display.scroll()

scrolls horizontally on the display. If the value is an integer or a floating-point number, the integer is first converted to a string.

sleep()

Pause for a specified time when running here, the unit is ms.

Note:

1 - The capital letter/lowercase letters must be distinguished !

2 - Correct spelling!

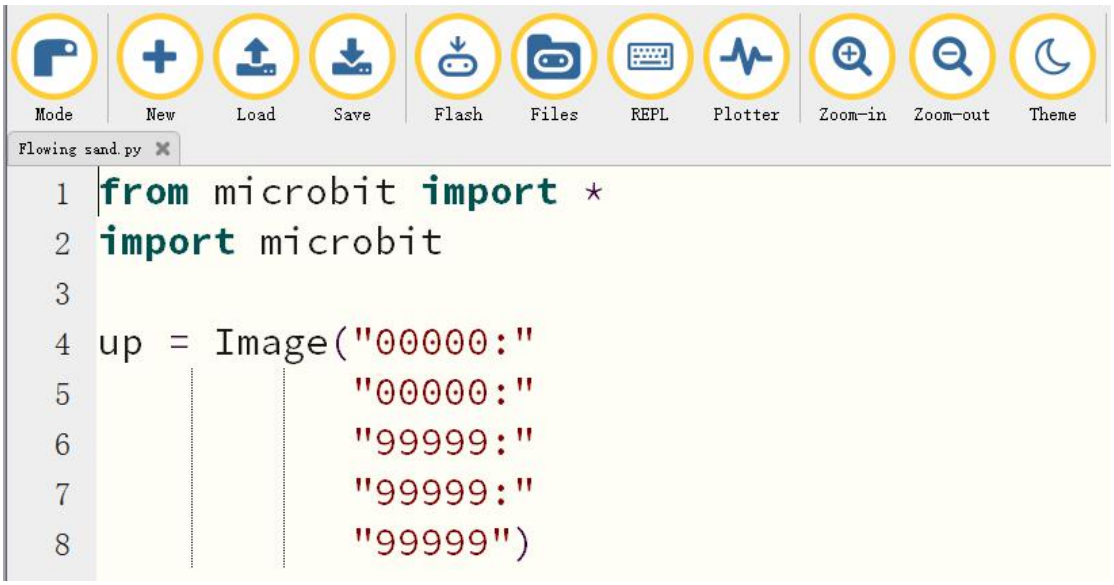
3 - Keywords such as # need a space between the content.

4 - You can only use the Tab key (tabulation key) for indentation.

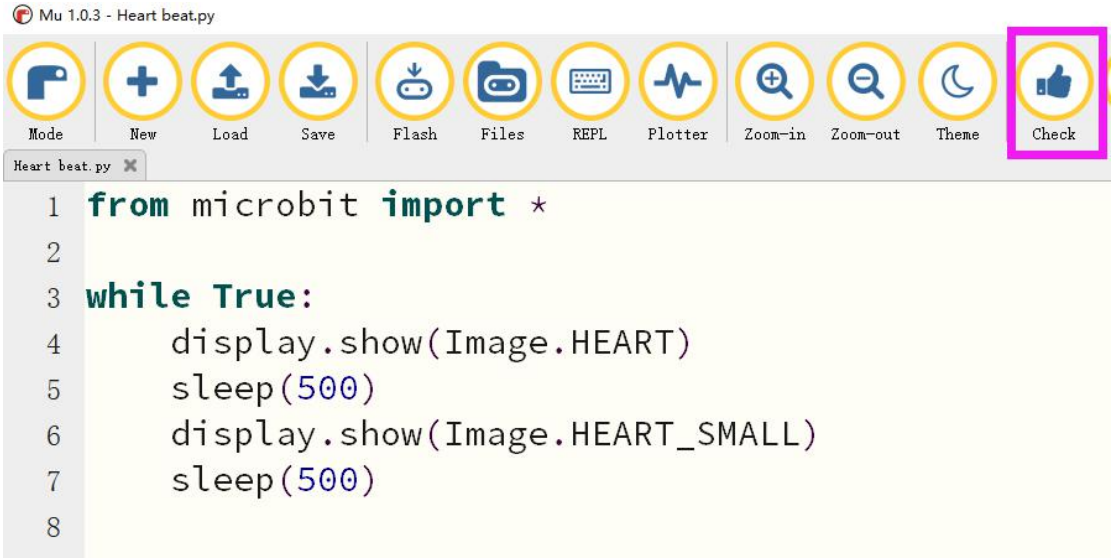
3. Programming and downloading

3.1 You should open the Mu software, and enter the code in the edit window, , as shown in Figure .

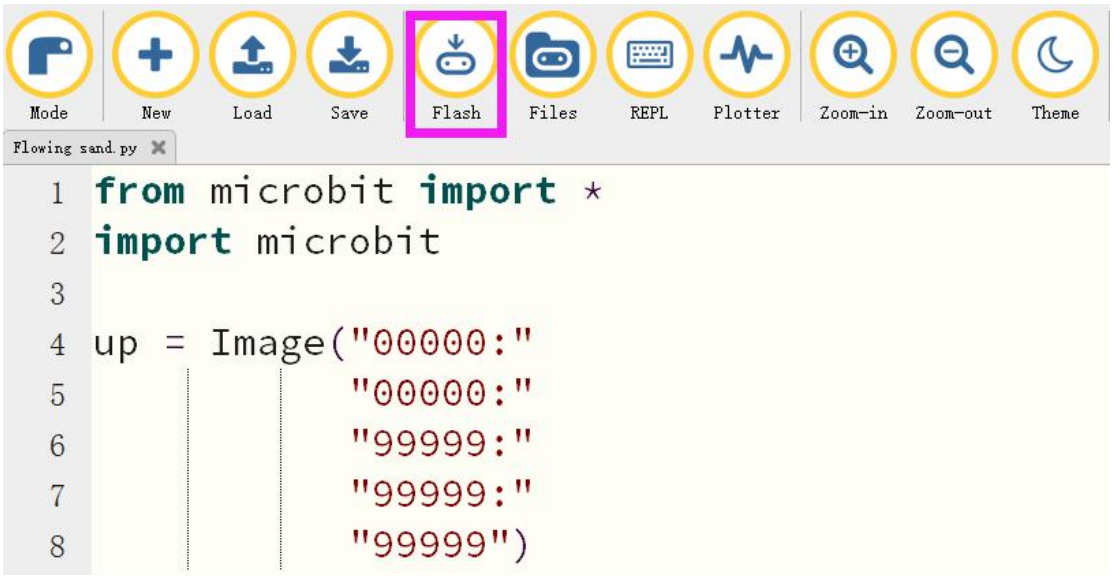
Note! All English and symbols should be entered in English, and the last line must be a space.



3.2 As shown in Figure, you need to click the Check button to check if our code has an error. If a line appears with a cursor or an underscore, the program indicating this line is wrong.



3.3 You need to connect the micro data cable to micro:bit and the computer, then click the Flash button to download the program to micro:bit as shown in Figure 2-3.



4. Experimental phenomena

After the program is successfully downloaded, the micro: bit dot matrix will display scroll the current temperature value.