Swimming robot

Learning goals:

In this lesson, we mainly learn how to control building block motor by micro:bit and Super:bit expansion board.

Code:

! Note:

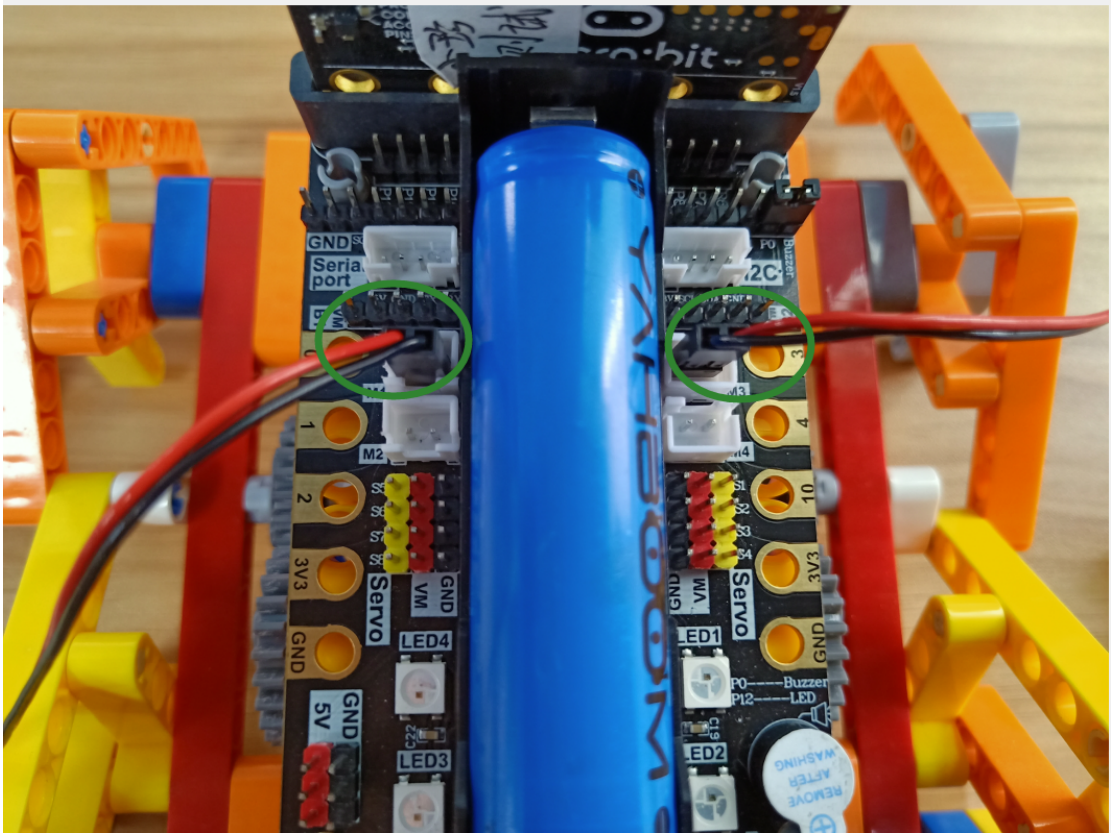
Due to the problem of the building block structure, if you want the spider to move forward, the direction of the building block motor needs to be set backward.

```
from microbit import display, Image

import superbit

display.show(Image.HAPPY)

while True:
    superbit.motor_control_dual(superbit.M1, superbit.M3, 255, 255, 0)

```

About wiring:

We need to connect two building block motors to the M1 and M3 interfaces of the Super:bit expansion board.

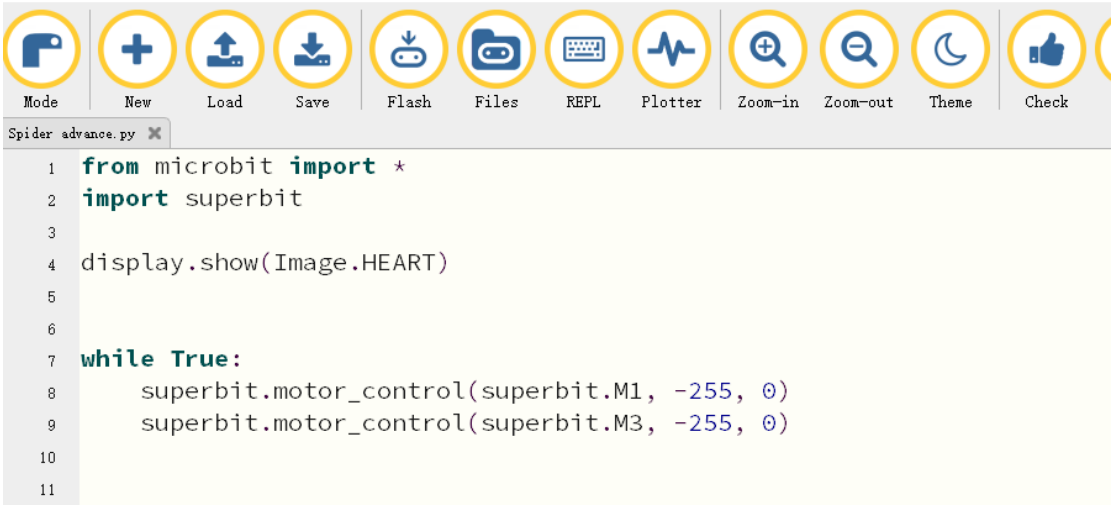
The black wiring of the motor is near the battery side. As shown below.



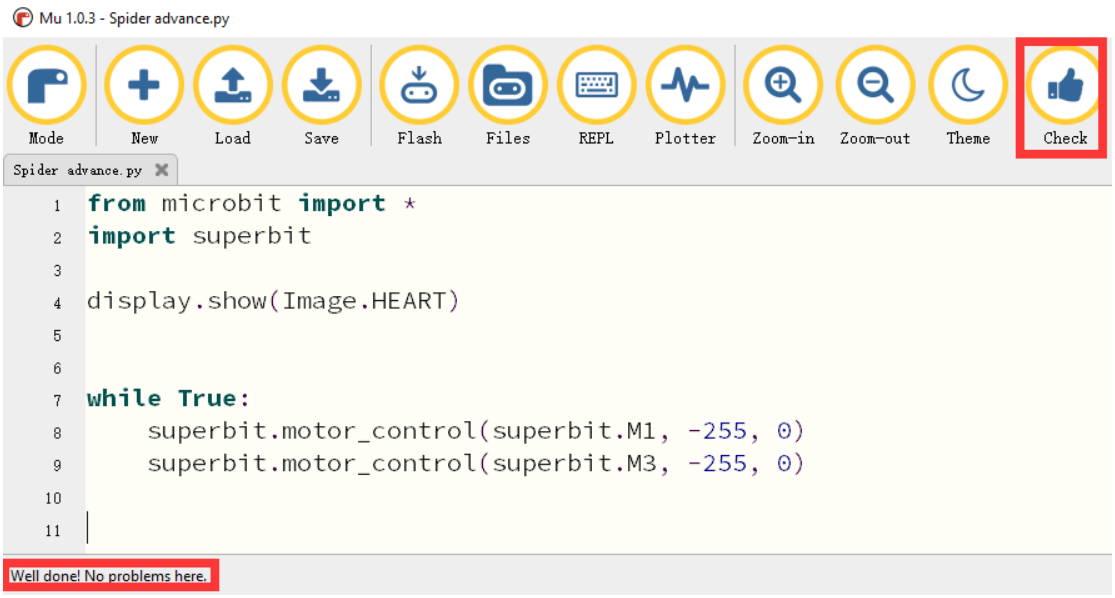
Programming and downloading:

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

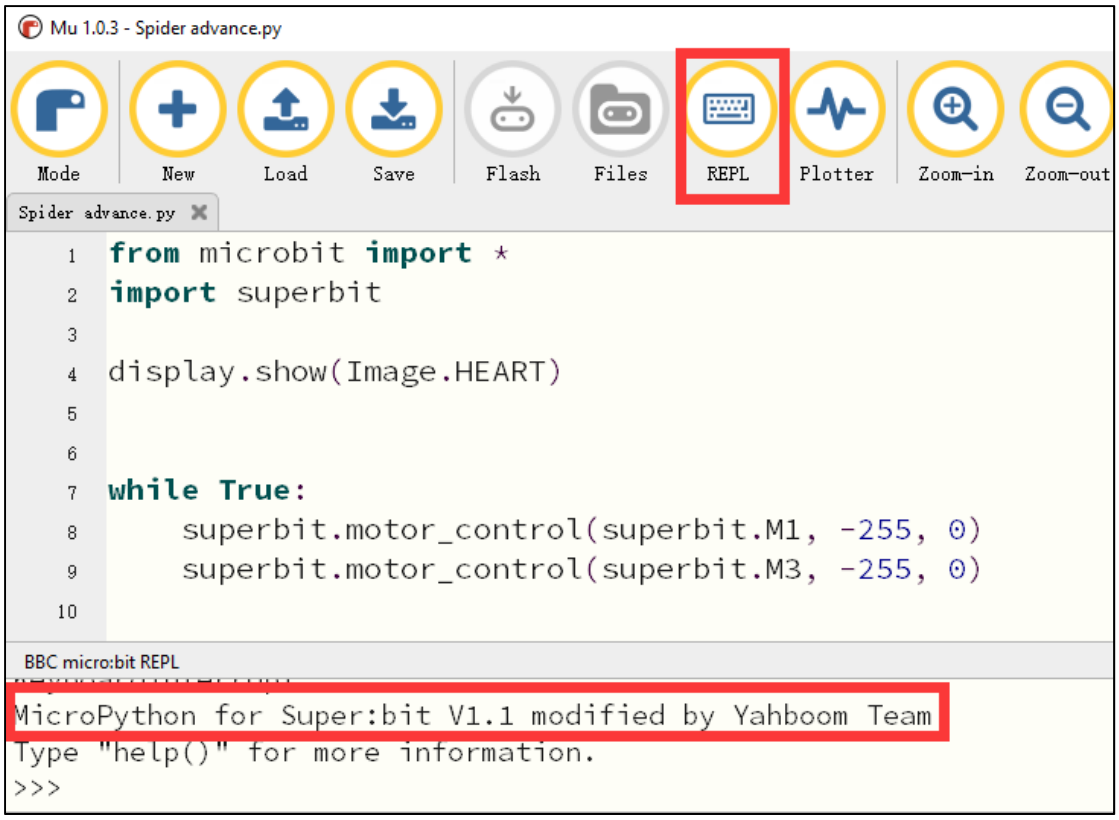
Note! All English and symbols should be entered in English, and the last line must be a space.



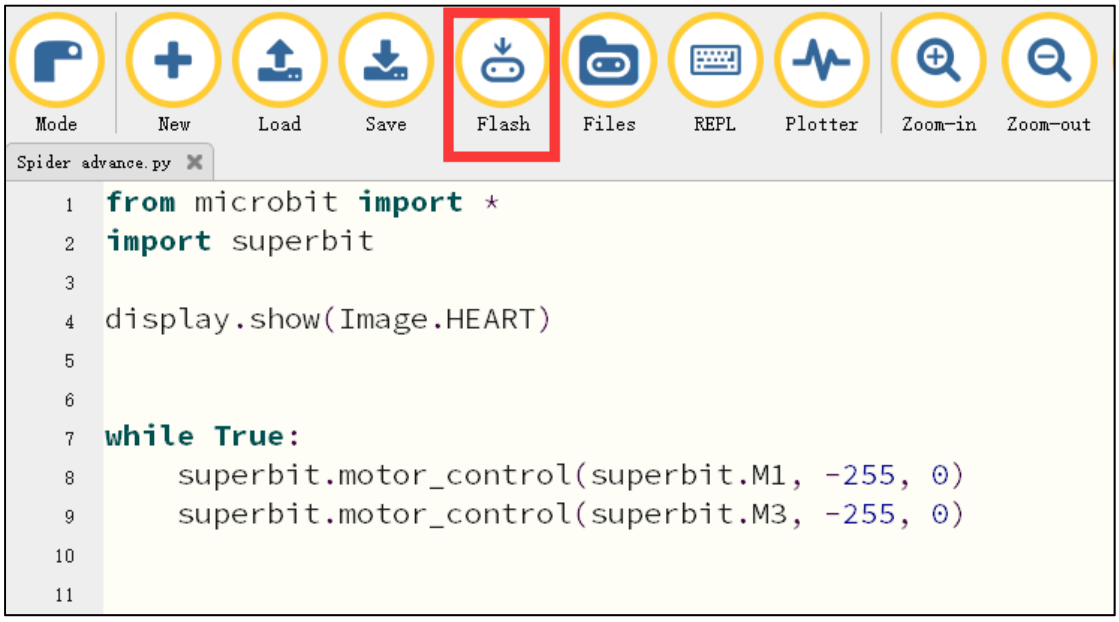
2.You can click the **"Check"** button to check if our code has an error. If a line appears with a cursor or an underscore, the program indicating this line is wrong.



3.Click the 'REPL' button to check whether the super:bit library has been downloaded. If not, please refer to the [1.preparation before class] ---> [2.How to import Yahboom superbit library] import super:bit library tutorial.



4.After writing the code, please click the 'Flash' button to download the program to the micro:bit board.



If the program is wrong or the experimental phenomenon is wrong after downloading, please confirm whether you have downloaded the superbit library hex file we provided to the micro: bit board.

For the specific method of adding library files, please refer to 【Preparation before class】---【How to import Yahboom superbit library】

5. Experimental phenomena

After the program is successfully downloaded, turn on the power switch, the micro:bit dot matrix will display a smile, and the two building blocks will rotate forward at the same time.

If you need to start over, press the reset button on the back of the micro:bit board.