

Square track

1.Learning goals

In this lesson, we mainly learn how to control motor on the Super:bit expansion board and make the OmniBit car walk a square track.

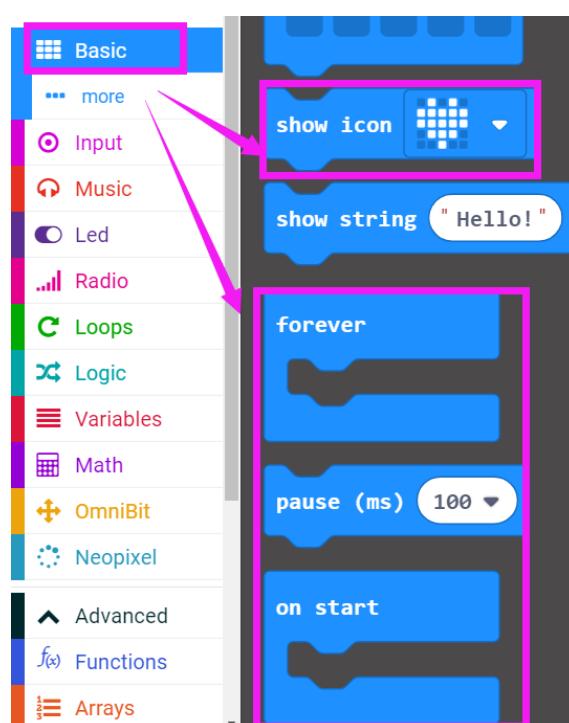
2.Programming method

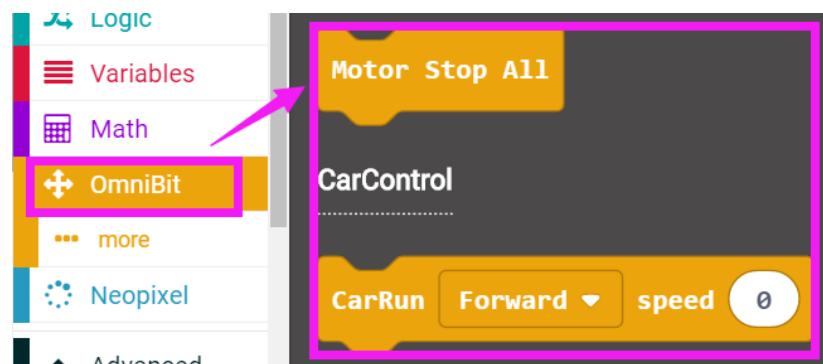
Mode 1 online programming: First, we need to connect the micro:bit to the computer by USB cable. The computer will pop up a USB flash drive and click on the URL in the USB flash drive: <http://microbit.org/> to enter the programming interface. Add the Yahboom package <https://github.com/lzty634158/OmniBit> to program.

Mode 2 offline programming: We need to open the offline programming software. After the installation is complete, enter the programming interface, click 【New Project】 , add Yahboom package:
<https://github.com/lzty634158/OmniBit>, you can program.

3.Looking for blocks

The following is the location of the building blocks required for this programming.





4.Combine building block

The summary program as shown below.



5.Assembly steps

Please refer to the **1.Omnibit installation steps** in the **1.Assembly steps** folder for building blocks assembly steps.

6.About wiring

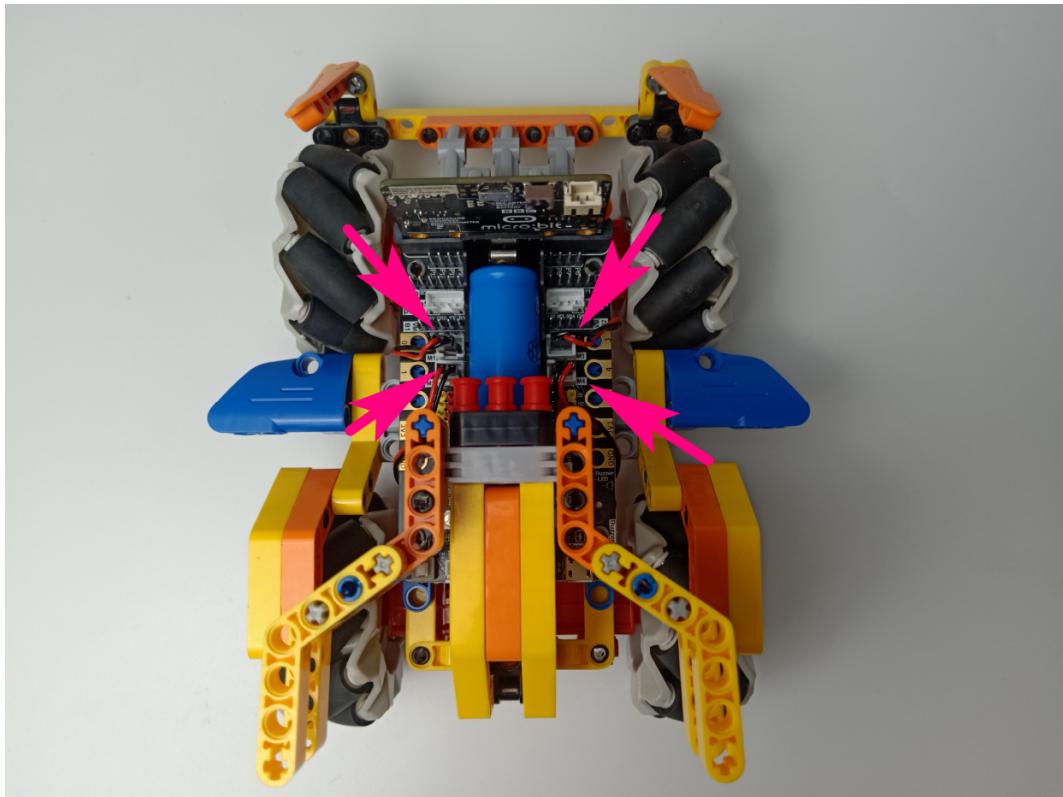
The left front motor is connected to the M1 interface of the Super:bit expansion board. The black line is on the battery side;

The left rear motor is connected to the M2 interface of the Super:bit expansion board, The black line is on the battery side;

The right front motor is connected to the M3 interface of the Super:bit expansion board, The black line is on the battery side;

The right rear motor is connected to the M4 interface of the Super:bit expansion board, The black line is on the battery side.

As shown below.



7.Experimental phenomena

After the program download is successful, the micro:bit dot matrix will display a smile.

The car will back 1s, move right 1s, advance 1s, move left 1s. Finally, the car will return to the original position and stops for 1 second. And keep the loop in such a state.

Running in the above way, the track of the car is square.

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