

Python Basic course11---Drive motor

Learning goals:

This lesson we will learn how to drive motor by Python programming.

Code:

```
# -*- coding: utf-8-*# Encoding cookie added by Mu Editor
from microbit import display, Image, sleep
import buildingbit

display.show(Image.HAPPY)
buildingbit.car_run(255, 255, 1000)
buildingbit.car_stop()
sleep(1000)
buildingbit.car_back(255, 255, 1000)
buildingbit.car_stop()
```

- 1) First, we need to import Yahboom buildingbit library: **import buildingbit** and others library we need to use.
- 2) **display.show(Image.HAPPY)** make micro:bit display a smile.
- 3) **buildingbit.car_run(255, 255, 1000)** make building:bit left and right motor forward.
Parameter 1: left motor speed. Range:0~255
Parameter 2: right motor speed. Range:0~255
Parameter 3: delay time(ms)
- 4) **buildingbit.car_back(255, 255, 1000)** make building:bit left and right motor reserve.
- 5) **buildingbit.car_stop()** make motor stop.

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, Tab key for indentation, and the last line must be a space.



2. 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. If there is no cursor or underline, it means that the code is correct, and the bottom left will prompt that the check is OK.

```

carRun.py | 驅動電機.py |
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3 import buildingbit
4
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8 sleep(1000)
9 buildingbit.car_back(255, 255, 1000)
10 buildingbit.car_stop()
11

```

Hurrah! Checker turned up no problems.

3. You need to connect the micro data cable to micro:bit and the computer and **download buildingbit library into micro:bit**. Then, click “**REPL**” button to import “Yahboom buildingbit library”. As shown below.

```

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BBC micro:bit REPL
>>> microbit.reset()
MicroPython for Building:bit V1.0 modified by Yahboom Team
Type "help()" for more information.
>>>
MicroPython for Building:bit V1.0 modified by Yahboom Team
Type "help()" for more information.
>>>
>>> |

```

4. Click “**Flash**” to download program to micro:bit board.



Mode New Load Save Flash Files REPL Plotter Zoom-in Zoom-out Theme Check Tidy Help Quit

carRun.py 车轮电机.py

```
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```

Experimental phenomena

We can see micro:bit dot matrix display a “smile”. Motor will forward 1s -> stop 1s -> reserve 1s -> stop.

