02.Car diagonal movement

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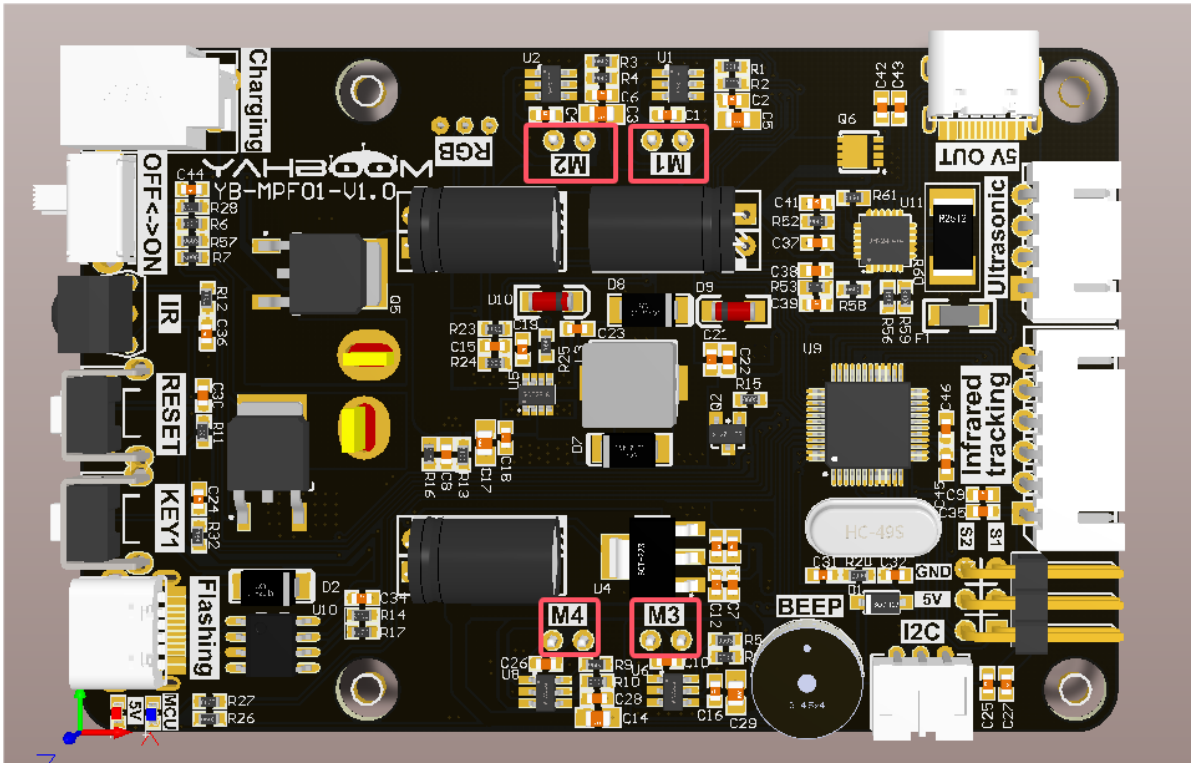
1. Learning objectives
2. Experimental preparation
3. Core code analysis
4. Experimental phenomenon

1. Learning objectives

Control the diagonal movement of the car.

2. Experimental preparation

As shown in the figure below, the motor needs to be connected to the expansion board.



3. Core code analysis

Car direction diagram

q w e

a-- | --d

z x c

McLumk_Wheel_Sports library function required to control the movement of the car:

```
move_diagonal_left_front(speed)
```

Parameter explanation: Control the movement of the car to the left front

speed: [0,255], the larger the value, the faster the left front moves

Return value: None.

```
move_diagonal_right_front(speed)
```

Parameter explanation: Control the movement of the right front of the car

speed: [0,255], the larger the value, the faster the right front moves

Return value: None.

```
move_diagonal_left_back(speed)
```

Parameter explanation: Control the movement of the left rear of the car

speed: [0,255], the larger the value, the faster the left rear moves

Return value: None.

```
move_diagonal_right_back(speed)
```

Parameter explanation: Control the movement of the right rear of the car

speed: [0,255], the larger the value, the faster the right rear moves

Return value: None.

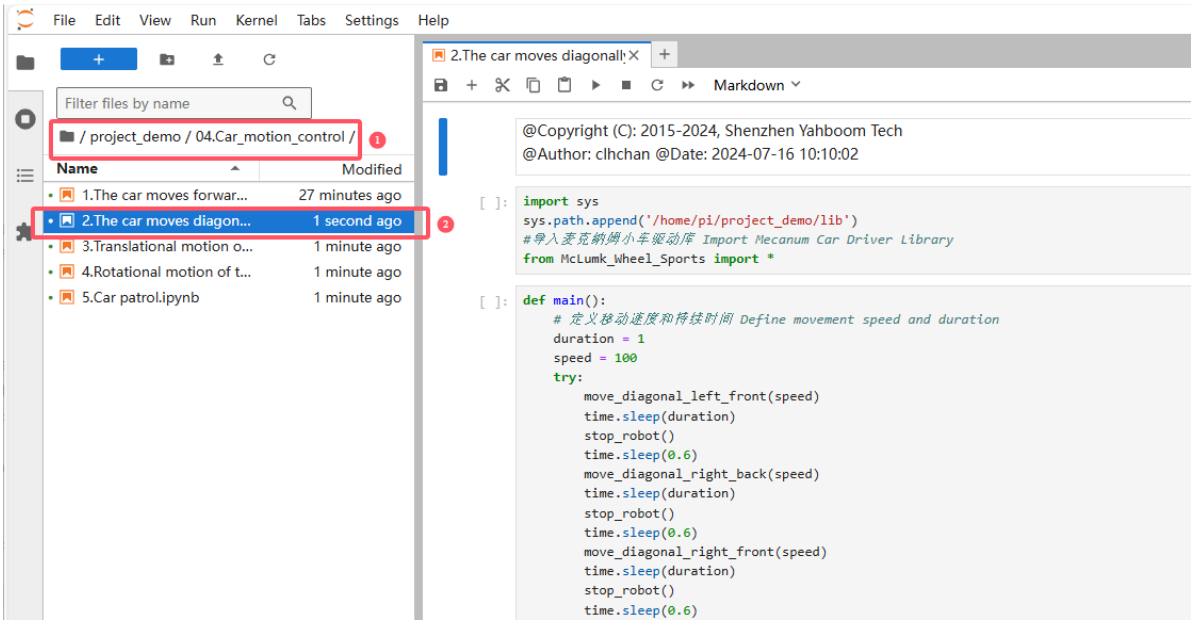
Source code path: project_demo/04.Car_motion_control

Library path: /home/pi/project_demo/lib

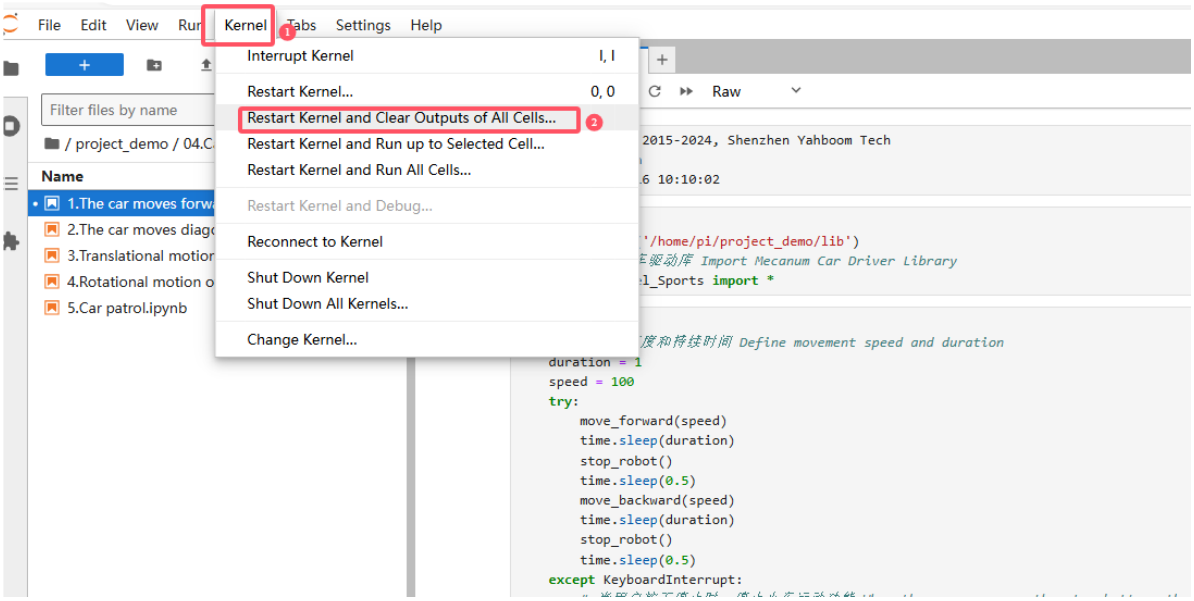
4. Experimental phenomenon

Turn on the robot, open the computer browser to enter the Jupyter lab editor

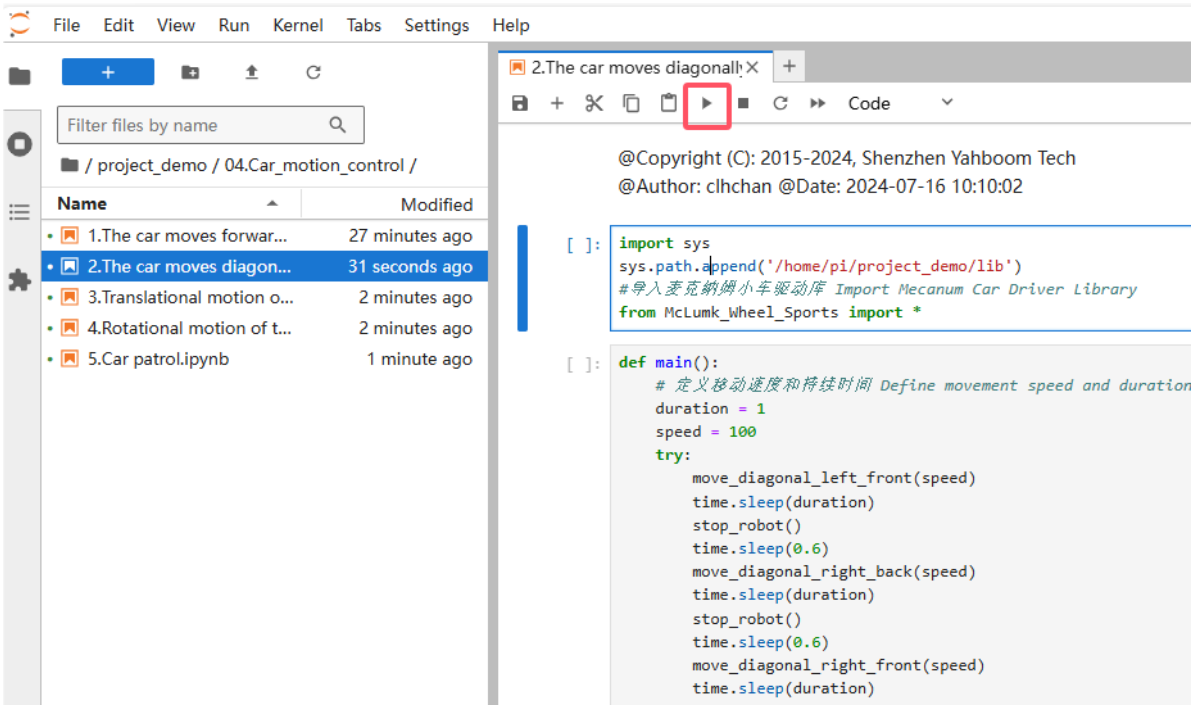
Enter the source code path, double-click the code to be run



Restart the kernel and clear all outputs



Click the first code block, then click the run button to start running one by one



After the program runs, as the code blocks run, we can see that the car moves to the left front for 1 second, moves to the right rear for 1 second, moves to the right front for 1 second, moves to the left rear for 1 second, and finally stops.