12. Case 11: Line-tracking Car

12.1. Introduction

This is a line tracking car, we can use black electrical tape to paste a track on the white plane, and then make the car drive according to the preset trajectory.

12.2. Quick Start

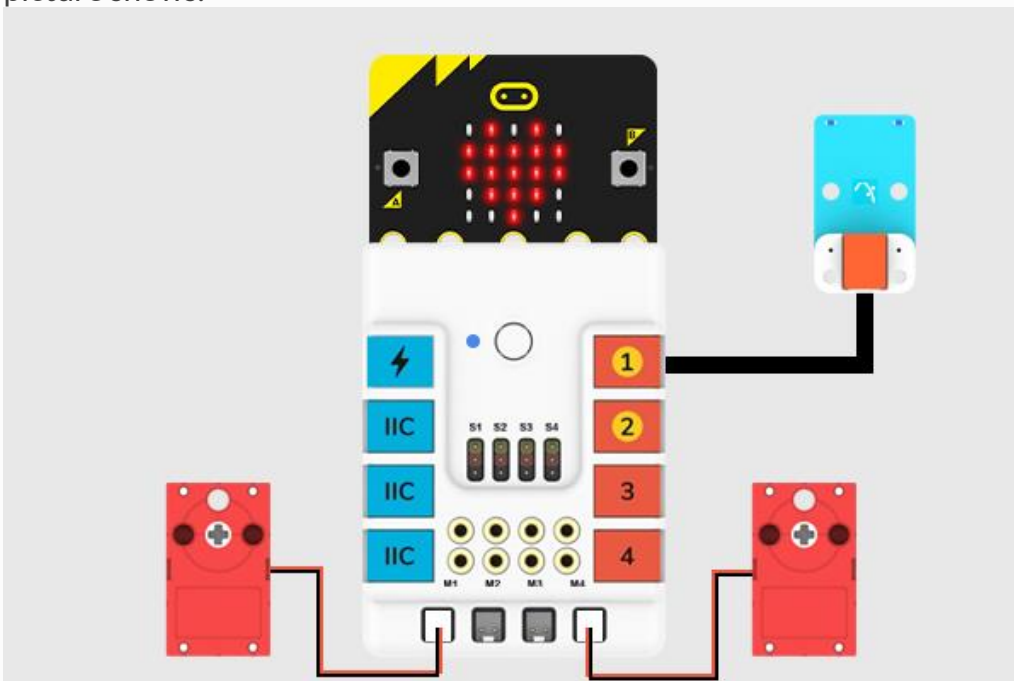**Materials Required**

Nezha expansion board × 1

micro:bit × 1

Line-tracking sensor × 1

Motors × 2

RJ11 wires × 1
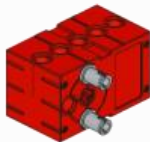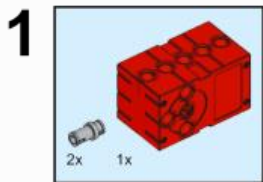
Connection Diagram
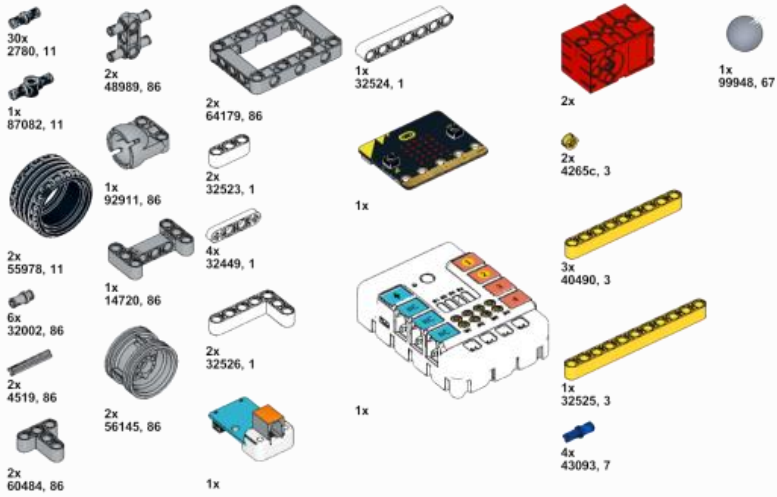
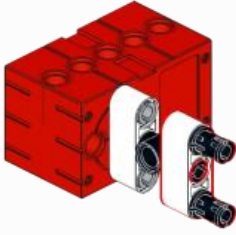Connect the line-tracking sensor to J1, the two motors to M1&M4 on the Nezha expansion board as the picture shows.
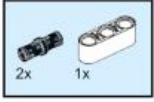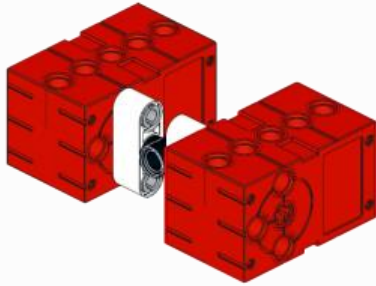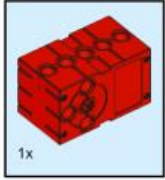

Assembly Video

Video reference: https://youtu.be/N2w01pGaj30

Assembly Steps

30x
2780, 11

1x
87082, 11

2x
55978, 11

6x
32002, 86

2x
4519, 86

2x
60484, 86

2x
48989, 86

1x
92911, 86

1x
14720, 86

2x
56145, 86

1x

2x
64179, 86

2x
32523, 1

4x
32449, 1

2x
32526, 1

1x
32524, 1

1x

1x

2x

2x
4265c, 3

3x
40490, 3

1x
32525, 3

4x
43093, 7

1x
99948, 67

1

2x   1x

2

1x   1x

3

2x 1x

4

1x

5

2x 2x

6

4x   2x

7

2x   2x

8

2x

9

2x 2x

10

2x 2x

11

2x 2x 1x

12

2x   2x

13

1x

14

2x   1x   1x

15

1x

16

8x   2x

17

2x   1x

18

2x 2x

19

2x 2x

20

2x
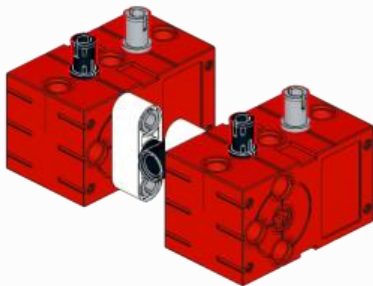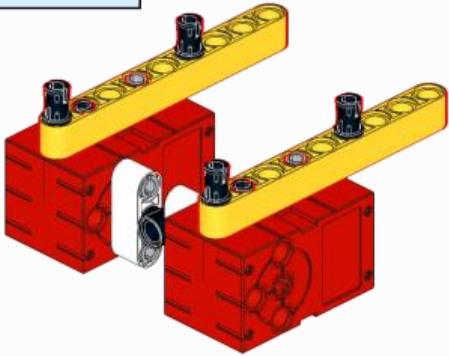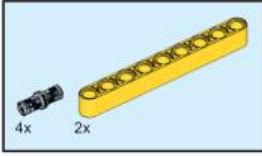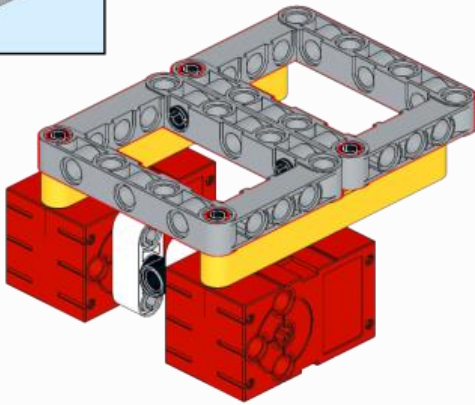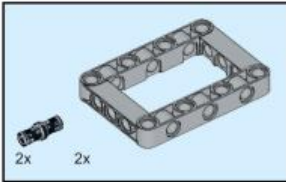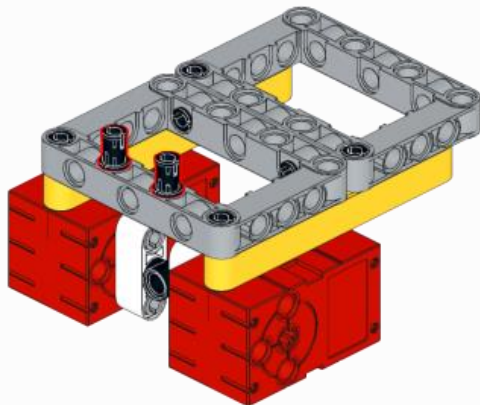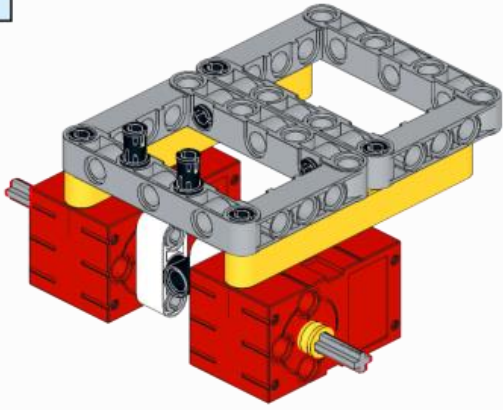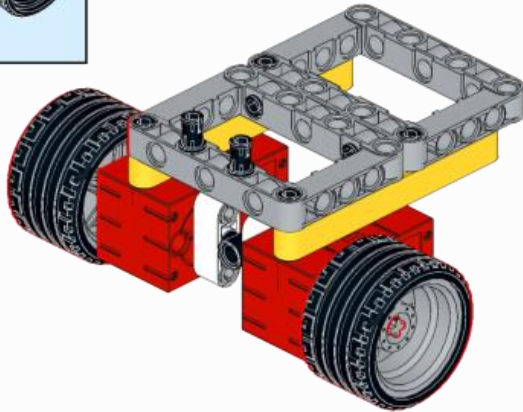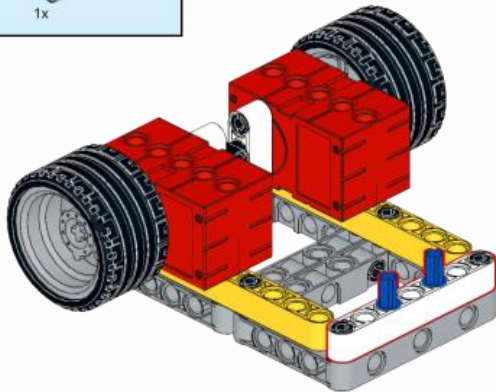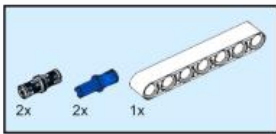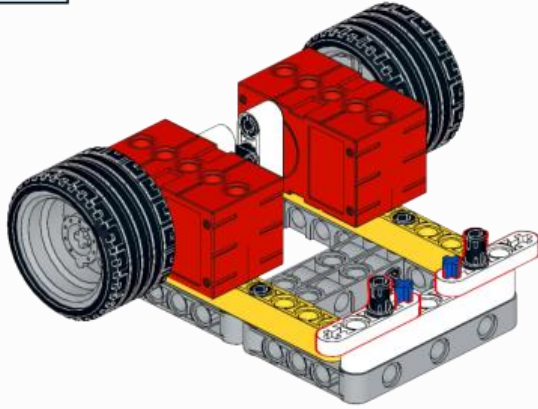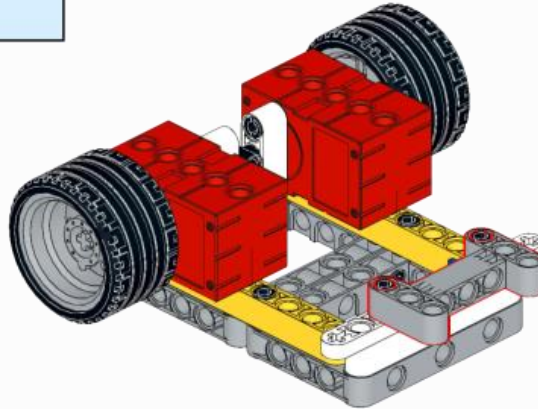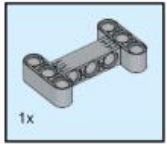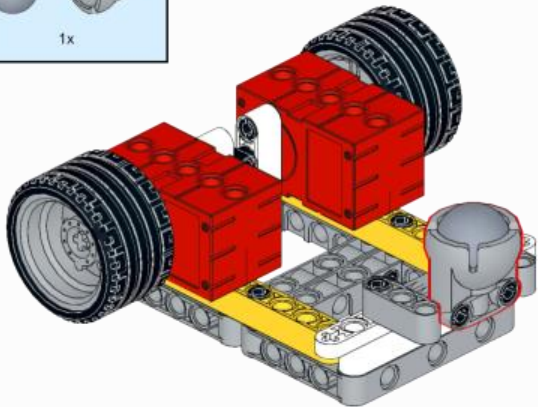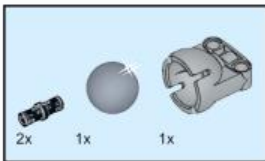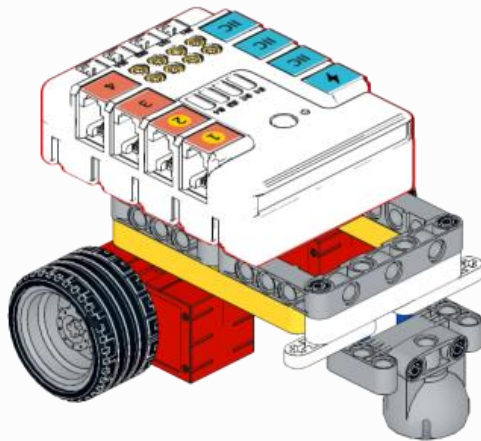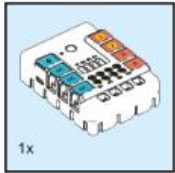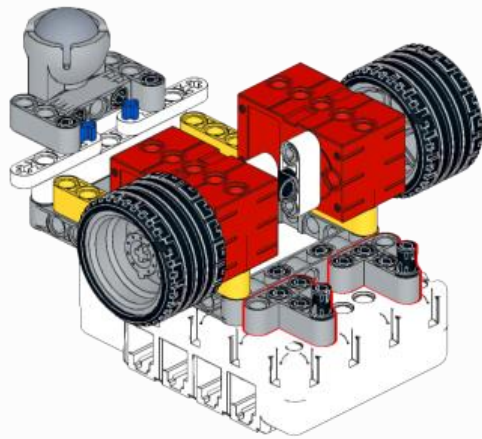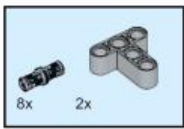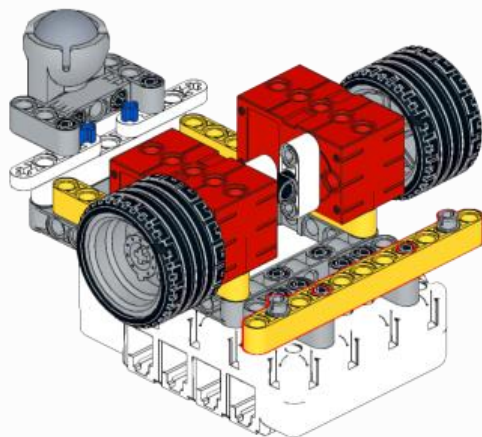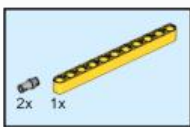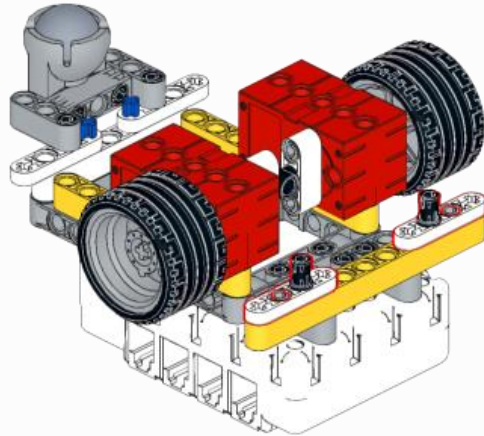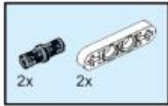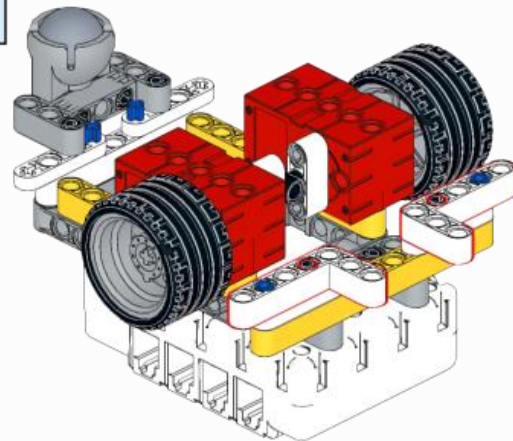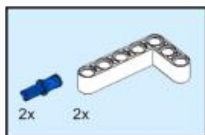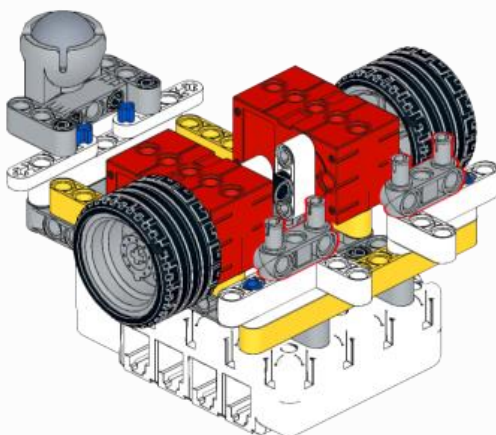
12.3. MakeCode Programming
Step 1

Click "Advanced" in the MakeCode to see more choices.

For programming, we need to add a package: click "Extensions" at the bottom of the MakeCode drawer and search with "PlanetX" in the dialogue box to download it.
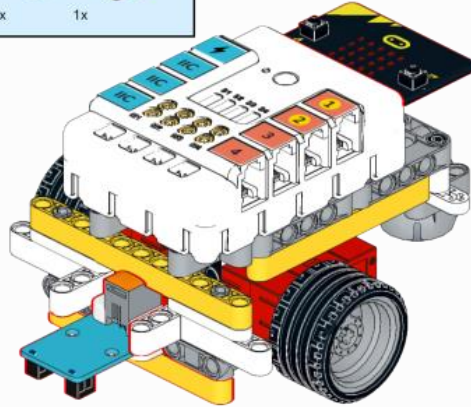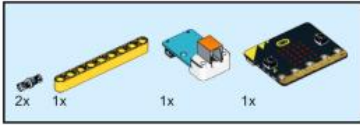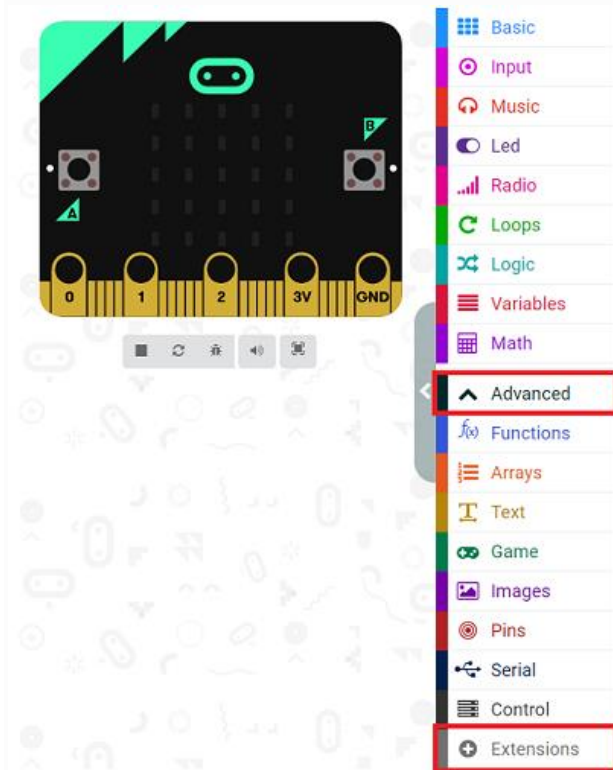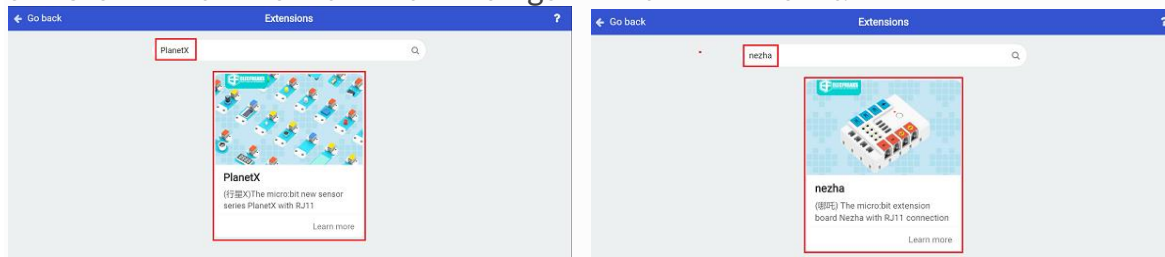

For programming, we need to add a package: click "Extensions" at the bottom of the MakeCode drawer and search with "nezha" in the dialogue box to download it.

Notice: If you met a tip indicating that some codebases would be deleted due to incompatibility, you may continue as the tips say or create a new project in the menu.

Step 2
Code as below:

Reference

Link : https://makecode.microbit.org/_MbaX4mTEmHmf

You may also download it directly below:

Result

The car drives along with the black line.