9. Case 08: Speed Adjustable Fans

9.1. Introduction

Use the potentiometer and the motor to make a knob to control the fan, and you can use the knob to control the speed of the fan.

9.2. Quick Start

Materials Required

Nezha expansion board × 1

micro:bit × 1

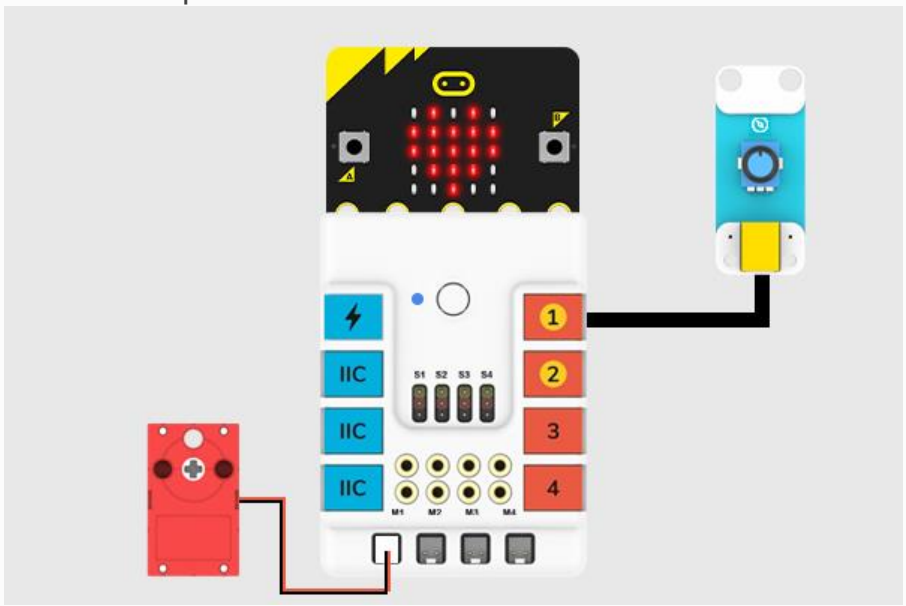
Potentiometer × 1

Motor × 1

RJ11 wire × 1

Connection Diagram

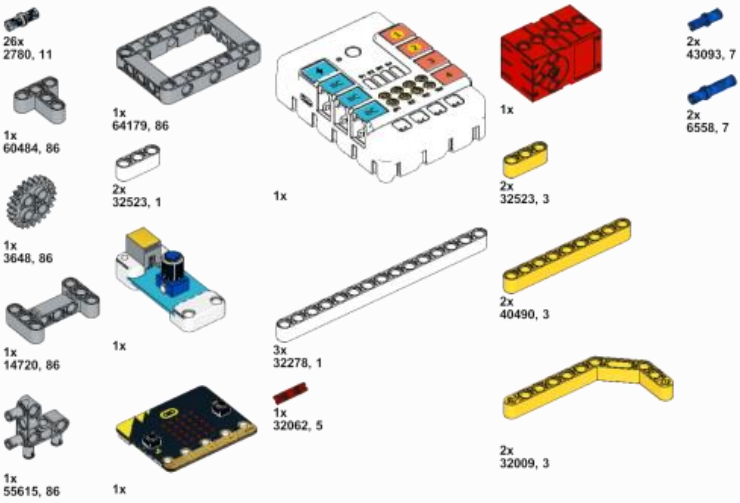
Connect the potentiometer to J1 and motor to M1 on the Nezha expansion board as the picture shows.



Assembly Video

Video reference: https://youtu.be/1-FaQU7Yj0k

Assembly Steps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32523, 1
1x
1x
1x
3x
32278, 1
1x
32062, 5
1x
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2x
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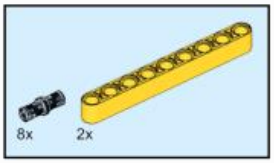
40490, 3
2x
32009, 3
2x
43093, 7
2x
6558, 7

1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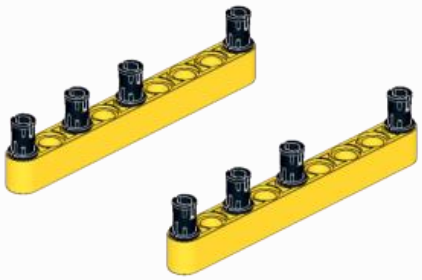

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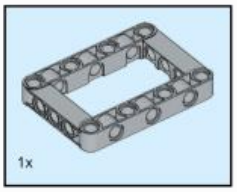
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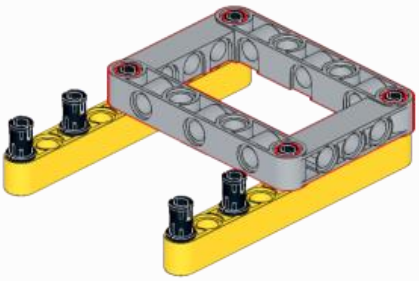

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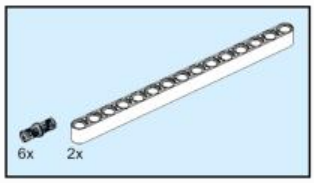

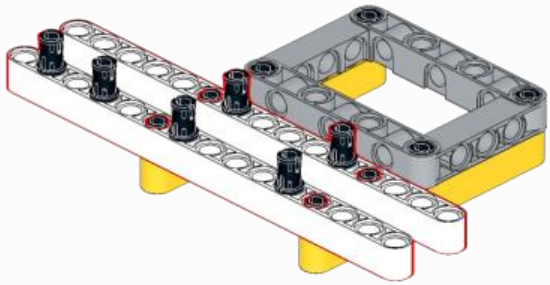

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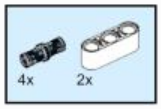

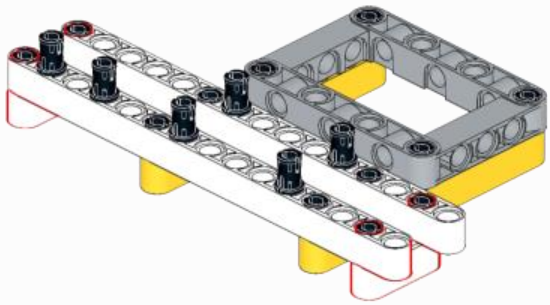

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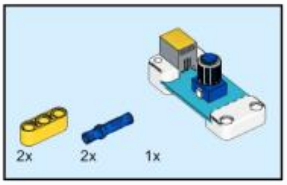

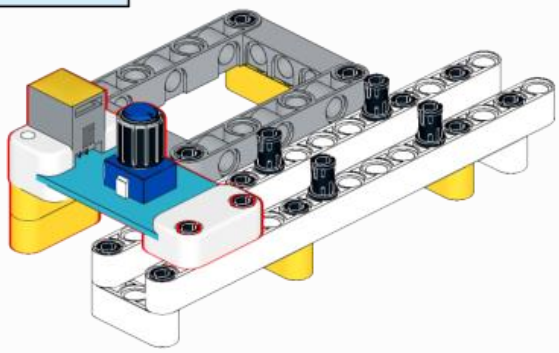

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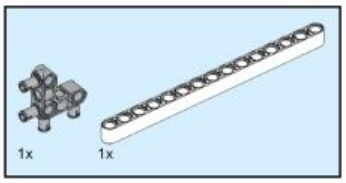

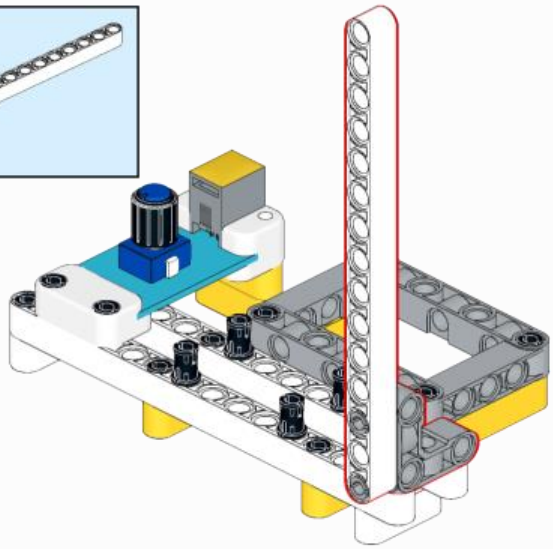

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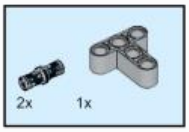

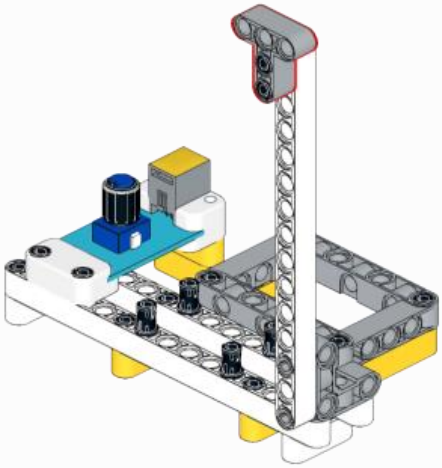

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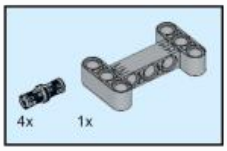

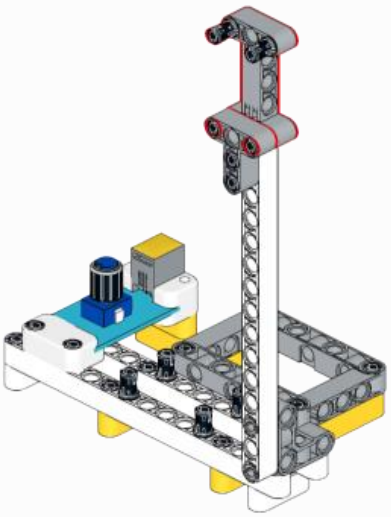

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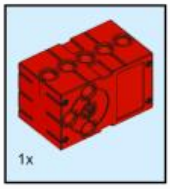

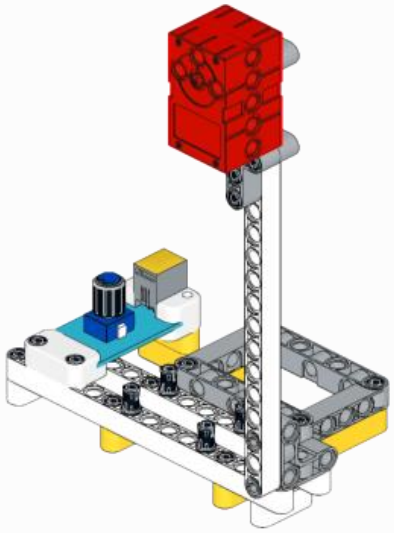

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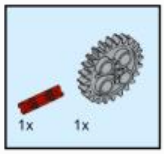

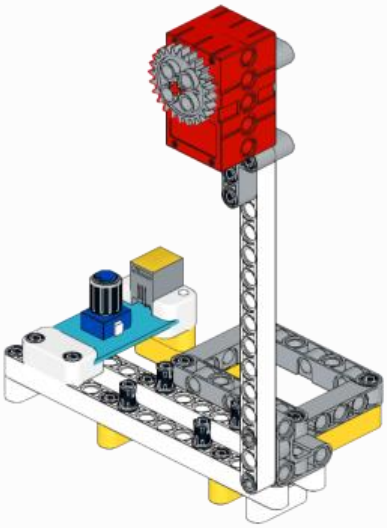

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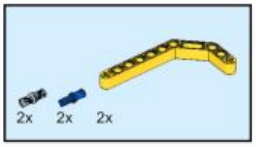
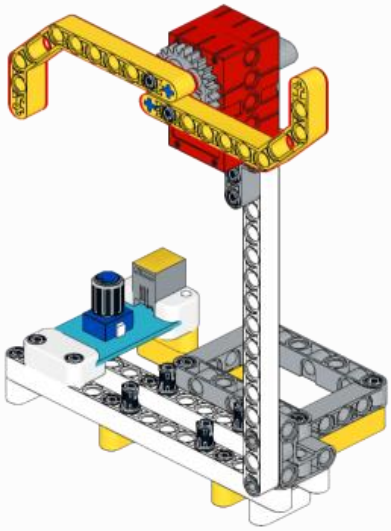
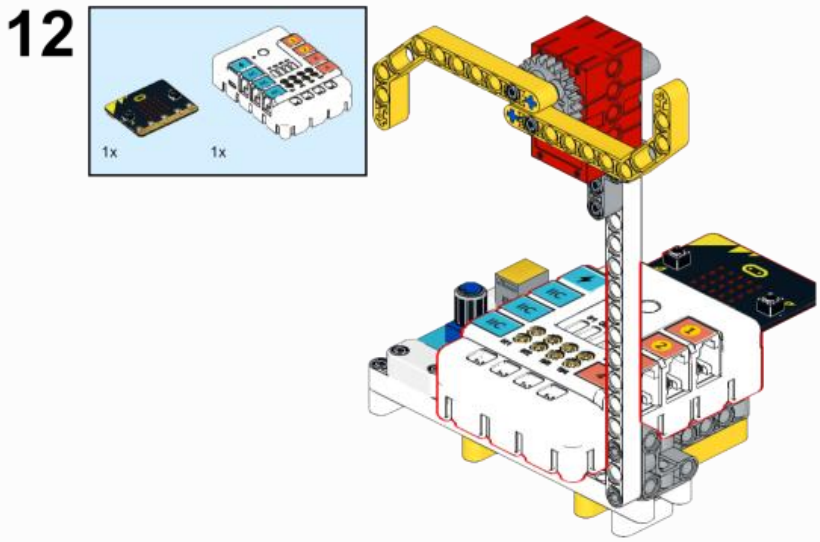


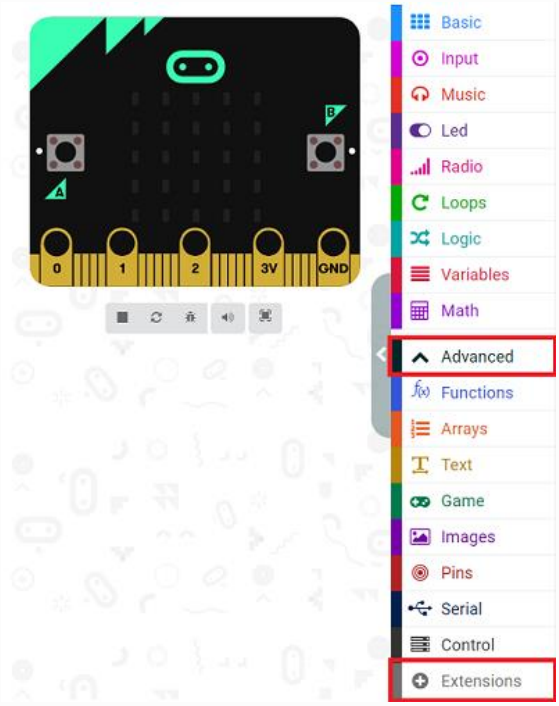




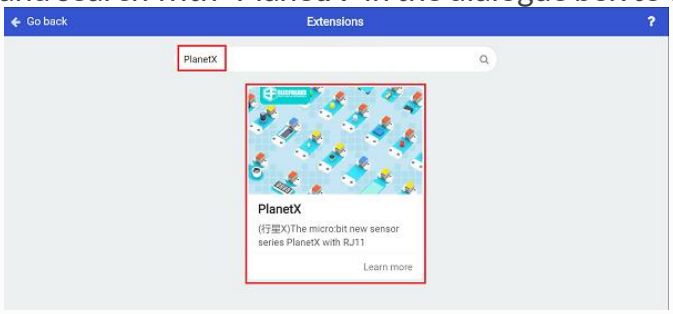
9.3. MakeCode Programming

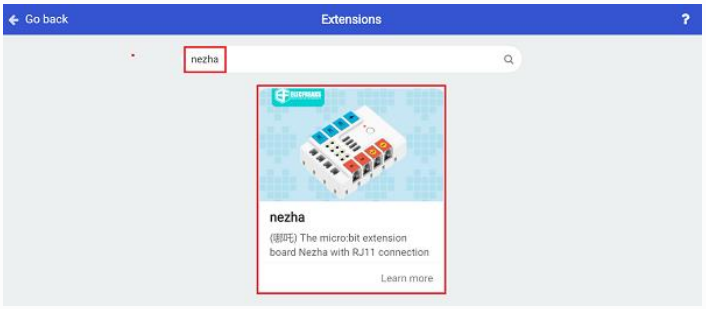
Step 1

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/_RK1WTKEMyfit

You may also download it directly below:

Result

Adjust the speed of the fan via the potentiometer.