

11. Case 10: Speed Adjustable Car

11.1. Introduction

This is an adjustable speed car, we can control the speed of the it through the potentiometer installed at the back side.



11.2. Quick Start

Materials Required

Nezha expansion board × 1

micro:bit × 1

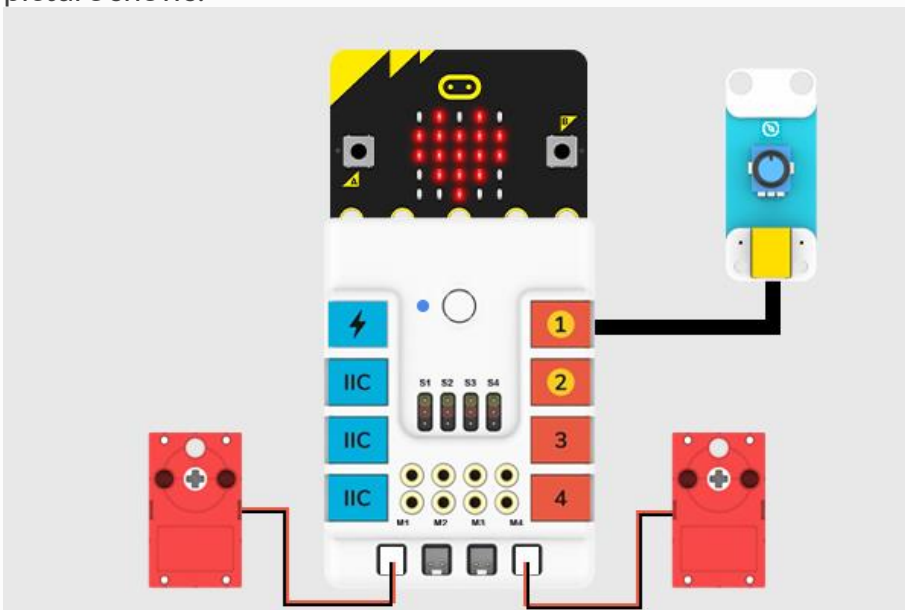
Potentiometer × 1

Motors × 2

RJ11 wires × 1

Connection Diagram

Connect the potentiometer to J1, the two motors to M1&M4 on the Nezha expansion board as the picture shows.

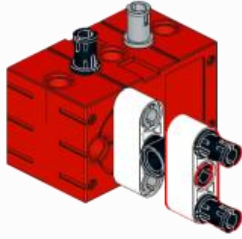
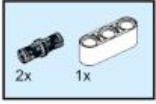


Assembly Video

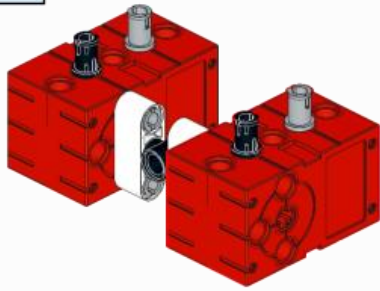
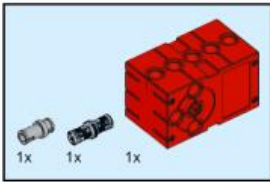
Video reference: <https://youtu.be/bVa5-wrcoeA>

Assembly Steps

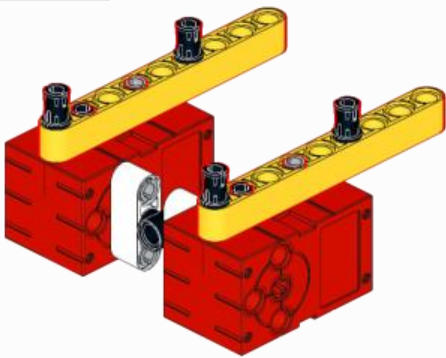
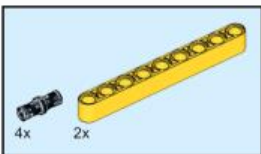
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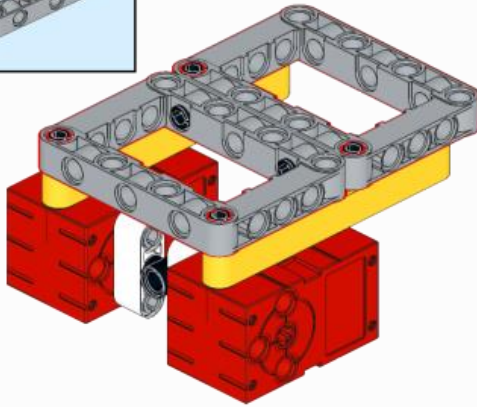
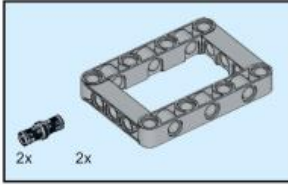
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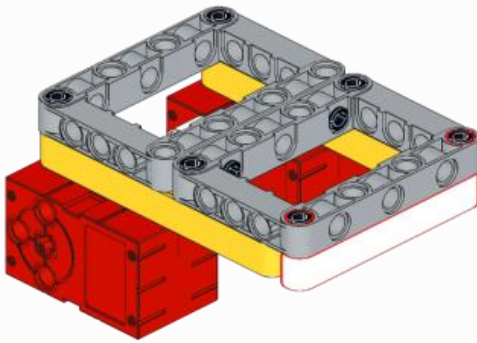
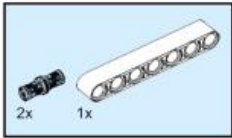
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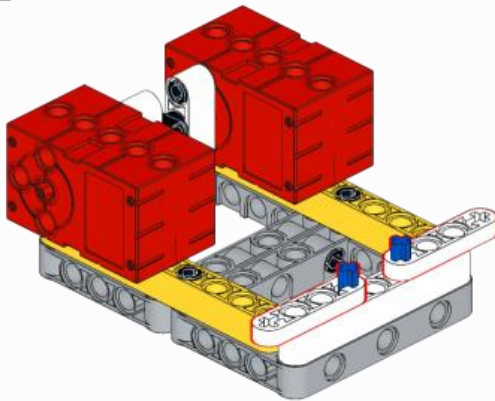
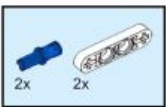
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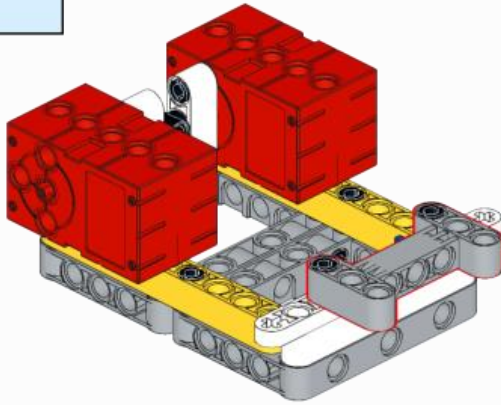
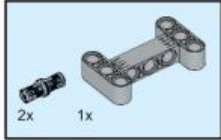
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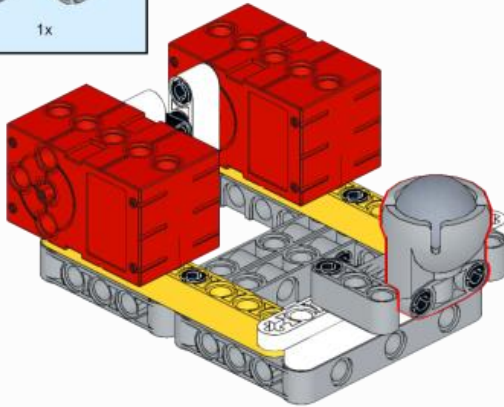
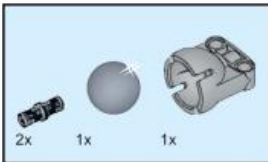
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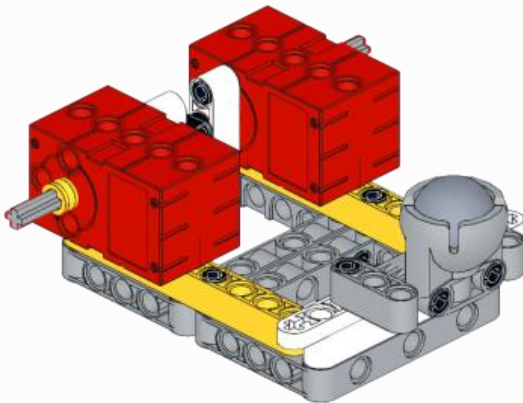
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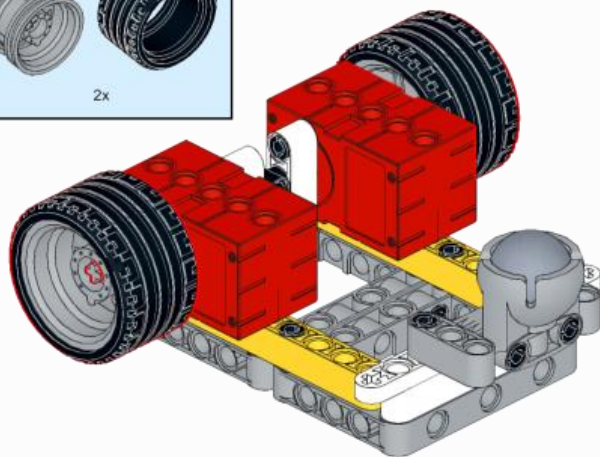
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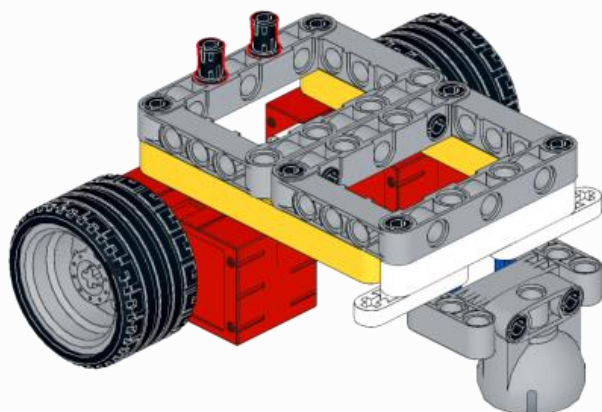
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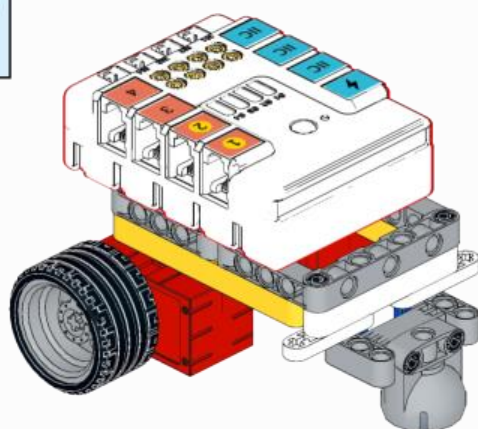
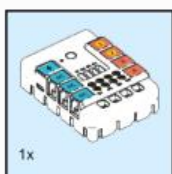
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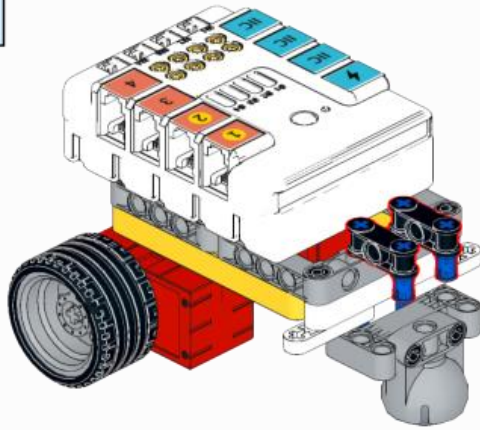
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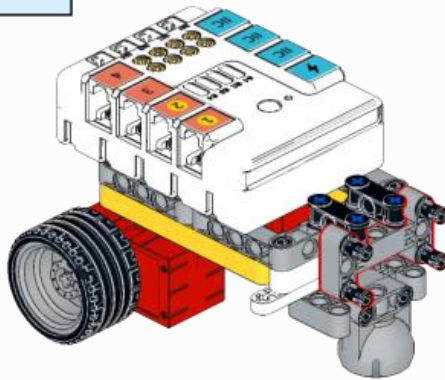
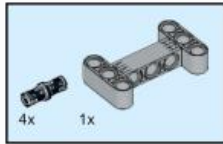
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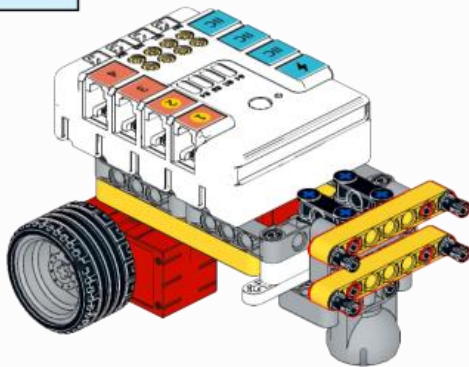
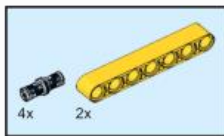
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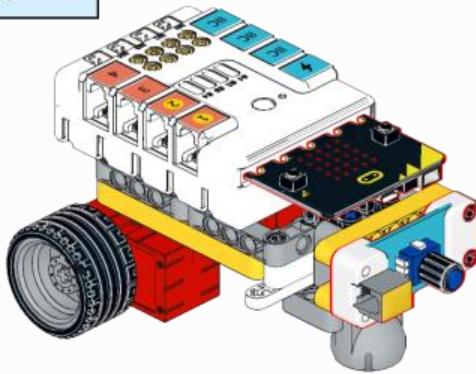
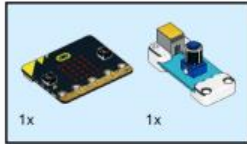
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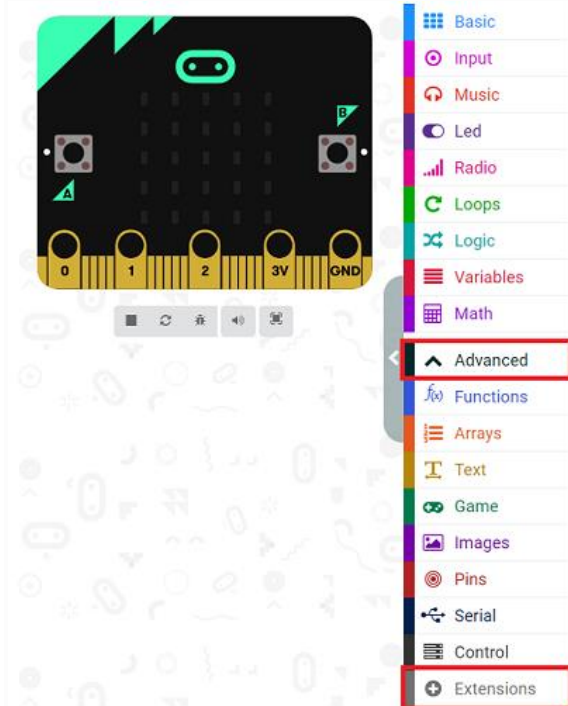
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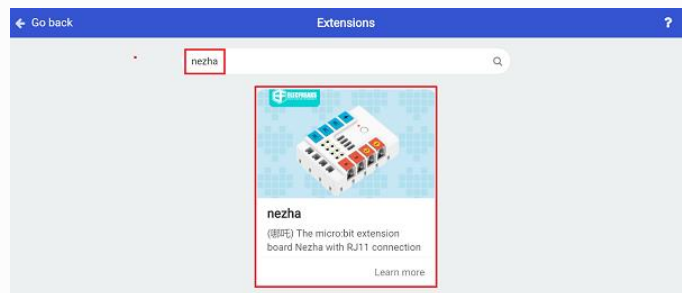
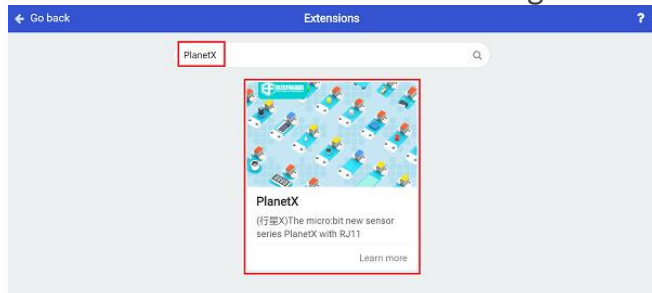
11.3. MakeCode Programming

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:

```
on start
  show icon [grid icon]

forever
  set i to map [Trimpot J1] analog value from low 0 high 1023 to low 0 high -100
  Set motor M1 speed to i %
  Set motor M4 speed to i %

indításkor
  [grid icon] ikon megjelenítése

állandóan
  i legyen leképzése ennek: [Trimpot J1] analog value alacsonyról 0 magas 1023 alacsonyra 0 magas -100
  Set motor M1 speed to i %
  Set motor M4 speed to i %
```

Reference

Link : https://makecode.microbit.org/_cTDgmegXA5ip

You may also download it directly below:

Result

The speed of the car could be adjusted by the potentiometer.

