

3. Case 02: Flower-watering Prompter

3.1. Introduction

Some plants can make people live healthier. For example, a pot of green dill in a room of 8-10 square meters is equivalent to an air purifier, which can effectively absorb harmful gases such as formaldehyde, benzene and trichloroethylene in the air. Thus, we can make a simple watering device to help us take care of plants.



3.2. Quick Start

Materials Required

Nezha expansion board × 1

micro:bit × 1

LED-red × 1

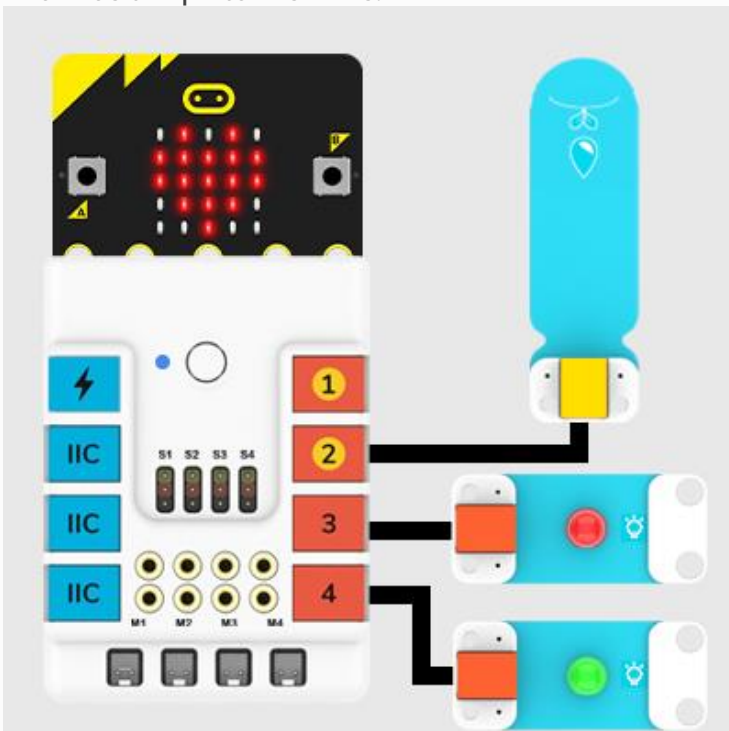
LED-green × 1

Soil moisture sensor × 1

RJ11 wires × 3

Connection Diagram

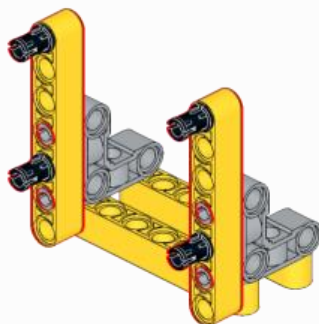
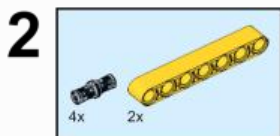
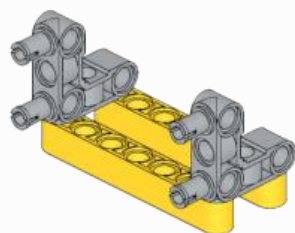
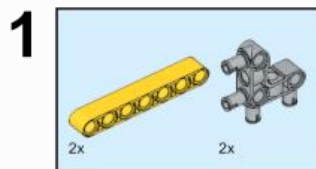
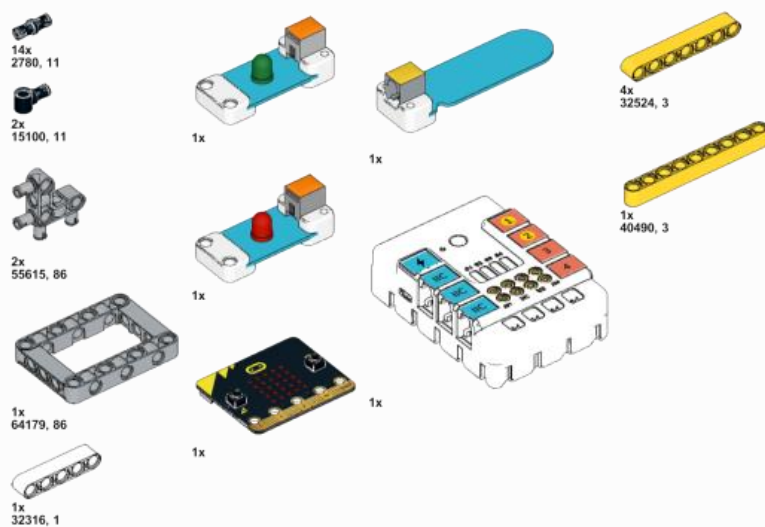
Connect the green LED to J4, red LED to J3 and soil moisture sensor to J2 on the Nezha expansion board as the picture shows.



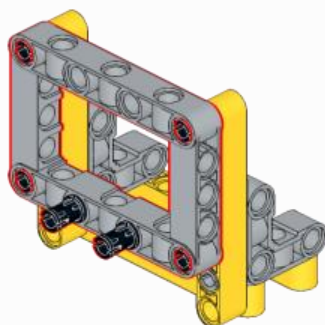
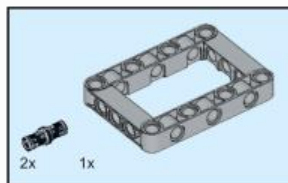
Assembly Video

Video reference: <https://youtu.be/YxEKEoDB6FQ>

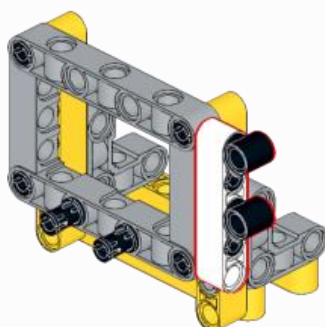
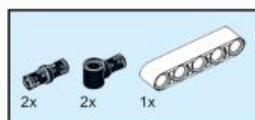
Assembly Steps



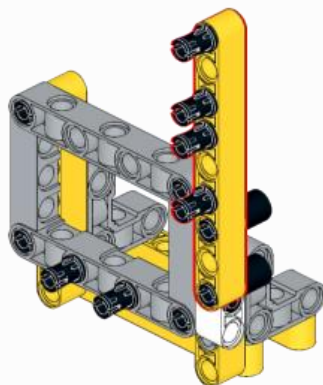
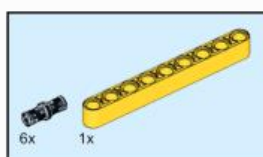
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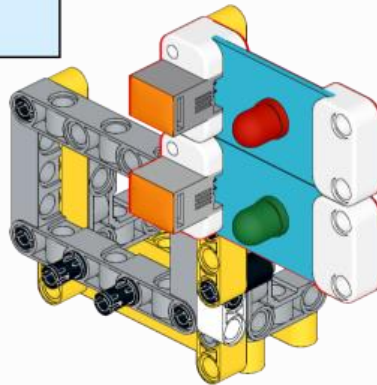
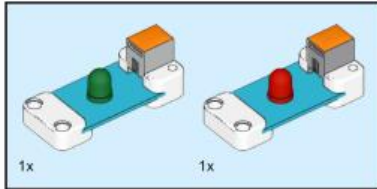
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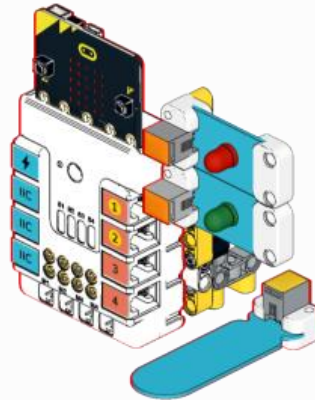
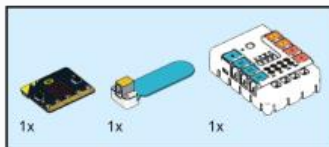
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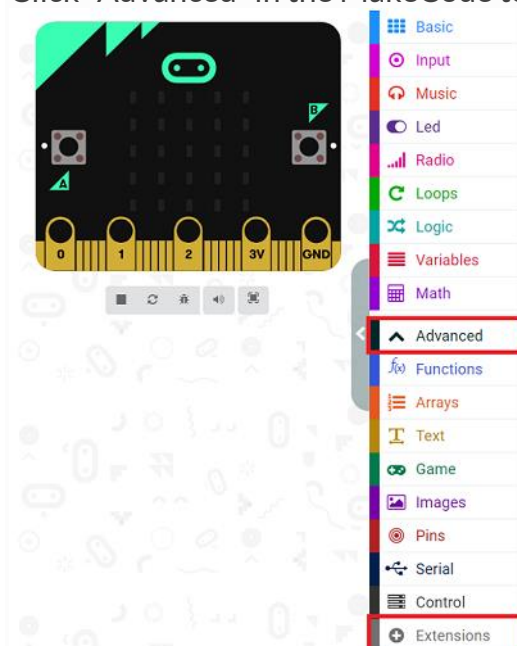


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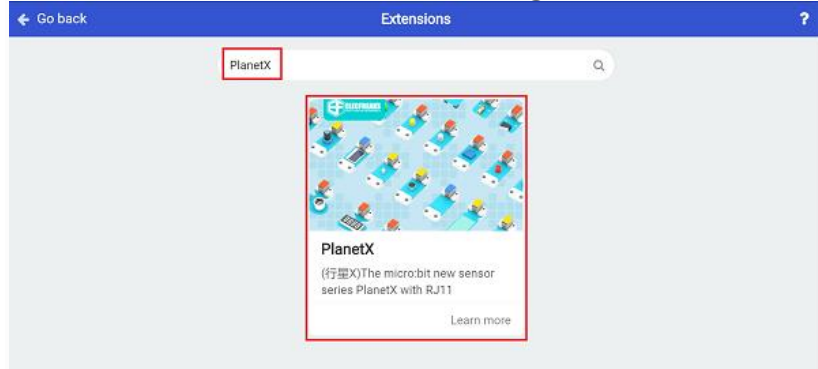


3.3. MakeCode Programming Step 1

Click “Advanced” in the MakeCode to see more choices.



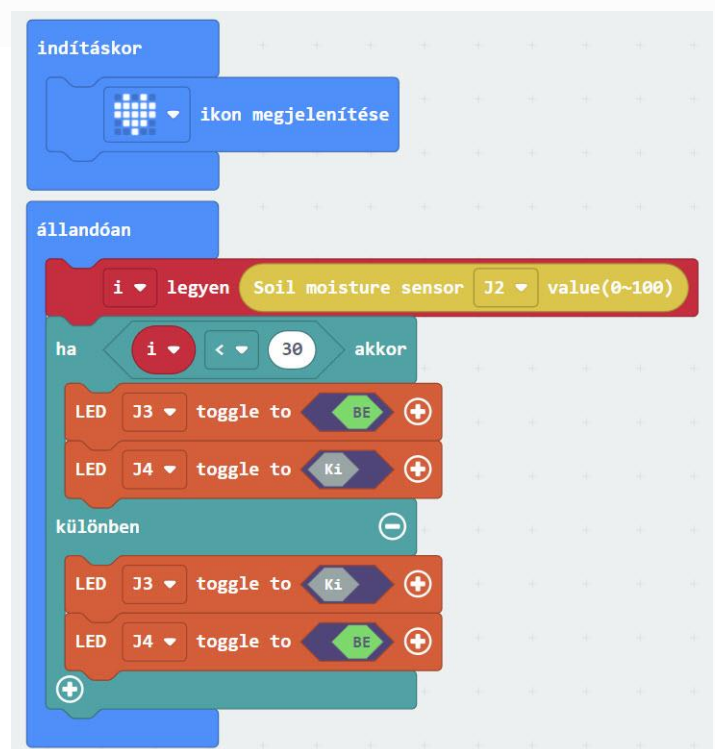
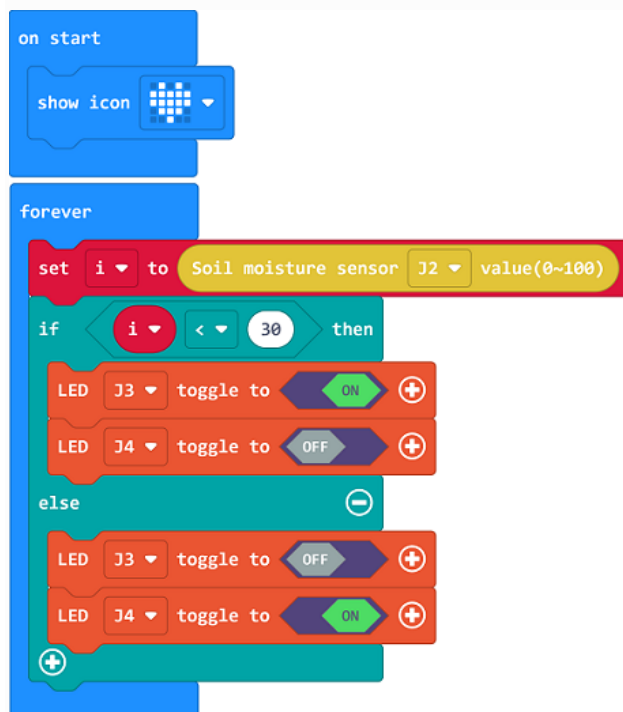
For programming, we need to add a package: click “Extensions” at the bottom of the MakeCode drawer and search with “PlanetX” in the dialogue box to download it.



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/_2FgMYuLiUeE8

You may also download it directly below:

Result

The red LED lights on for reminding of watering if the soil moisture sensors gets a low value from the earth, or the green LED lights on.

