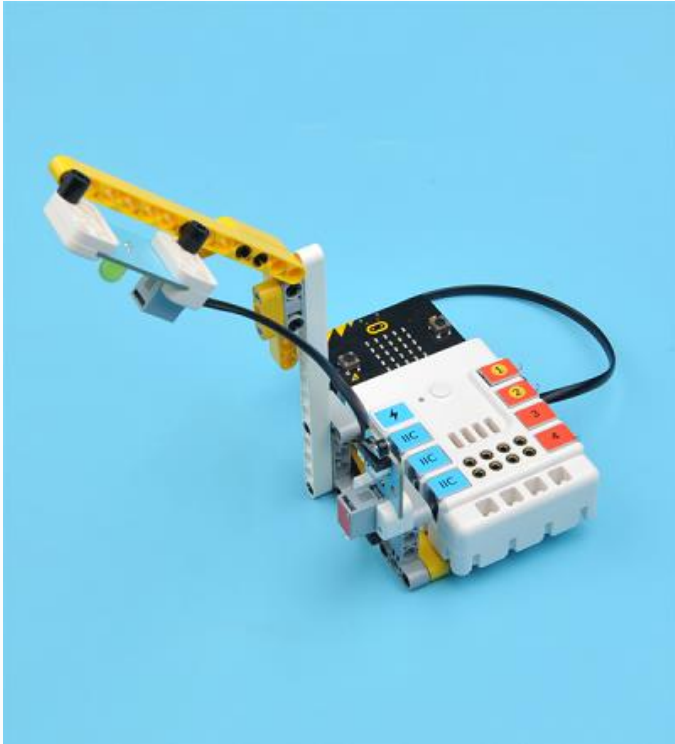


5. Case 04: Mini Table Lamps

5.1. Introduction

Use micro:bit to make a mini desk lamp, and control the LED light to turn on or off through a crash sensor.



5.2. Quick Start

Materials Reuqired

Nezha expansion board × 1

micro:bit × 1

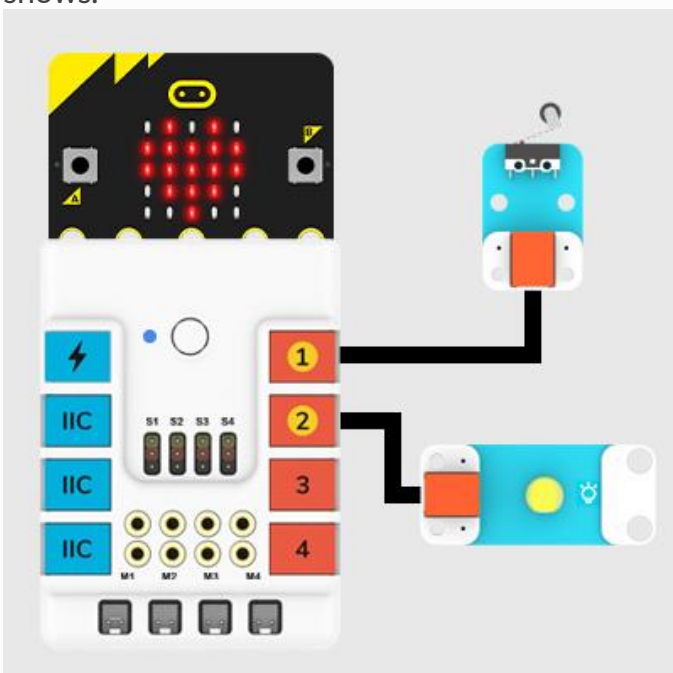
LED-yellow × 1

Crash sensor × 1

RJ11 wires × 2

Connection Diagram

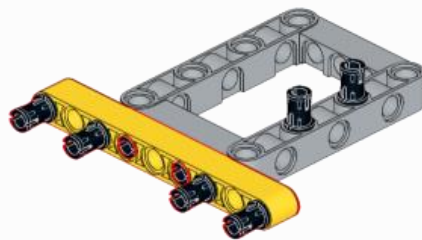
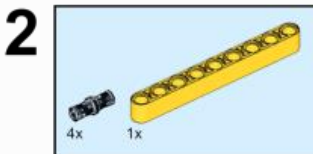
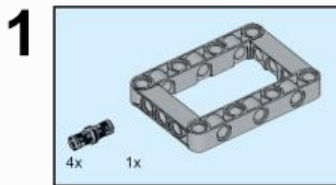
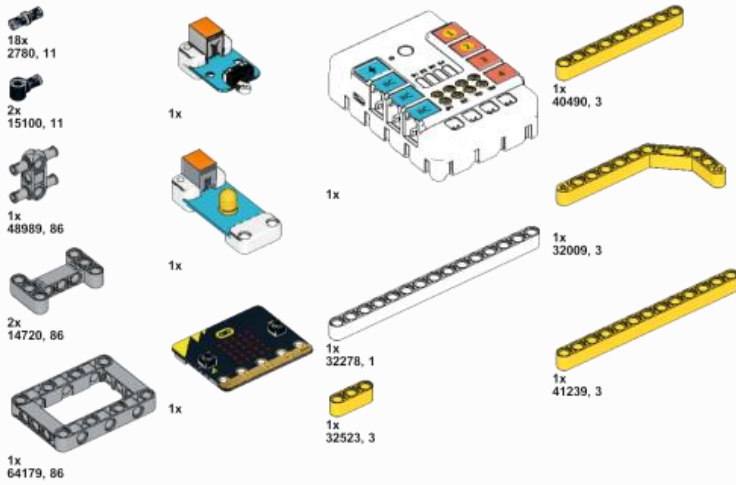
Connect the crash sensor to J1 and the yellow LED to J2 on the Nezha expansion board as the picture shows.



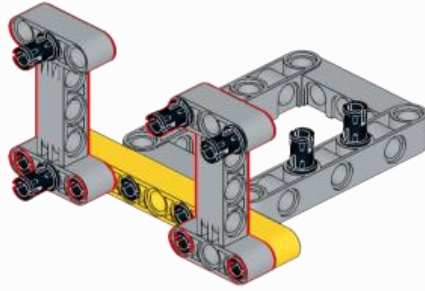
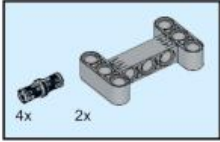
Assembly Video

Video reference: <https://youtu.be/BBP1Nx6t090>

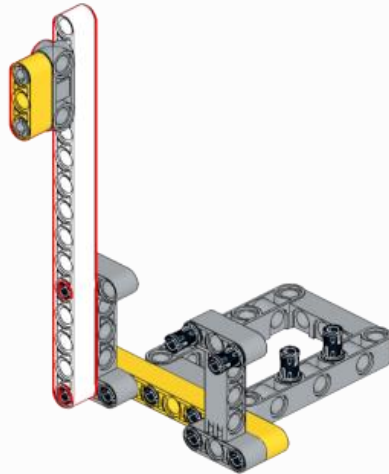
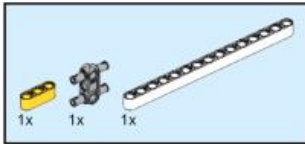
Assembly Steps



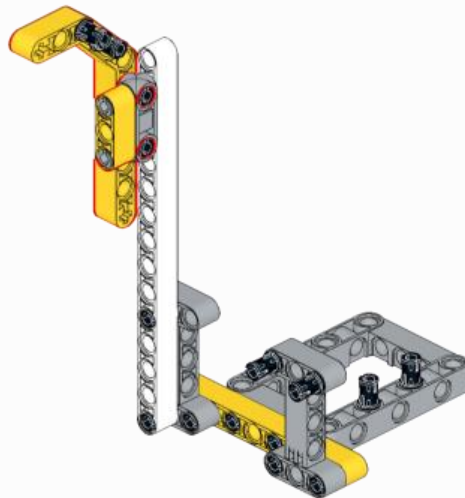
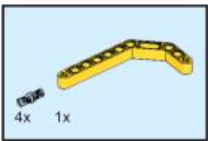
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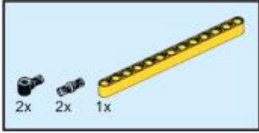
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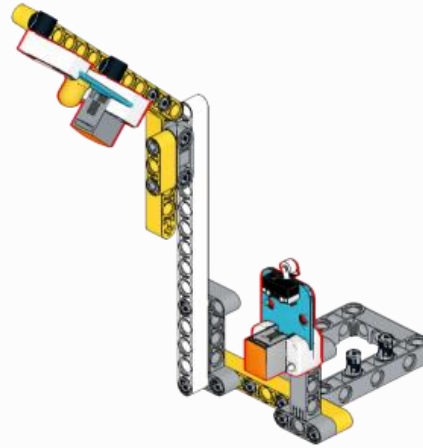
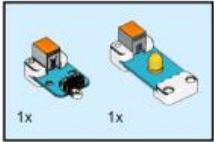
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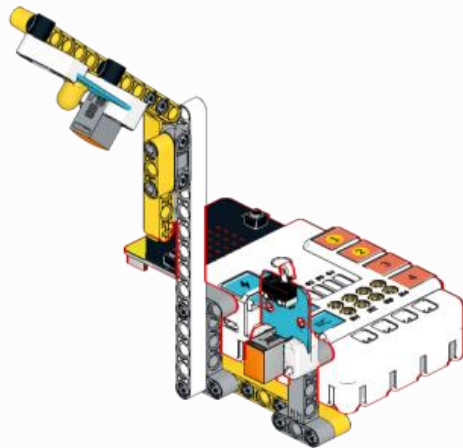
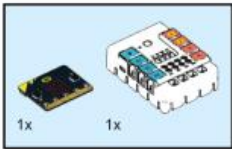
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7



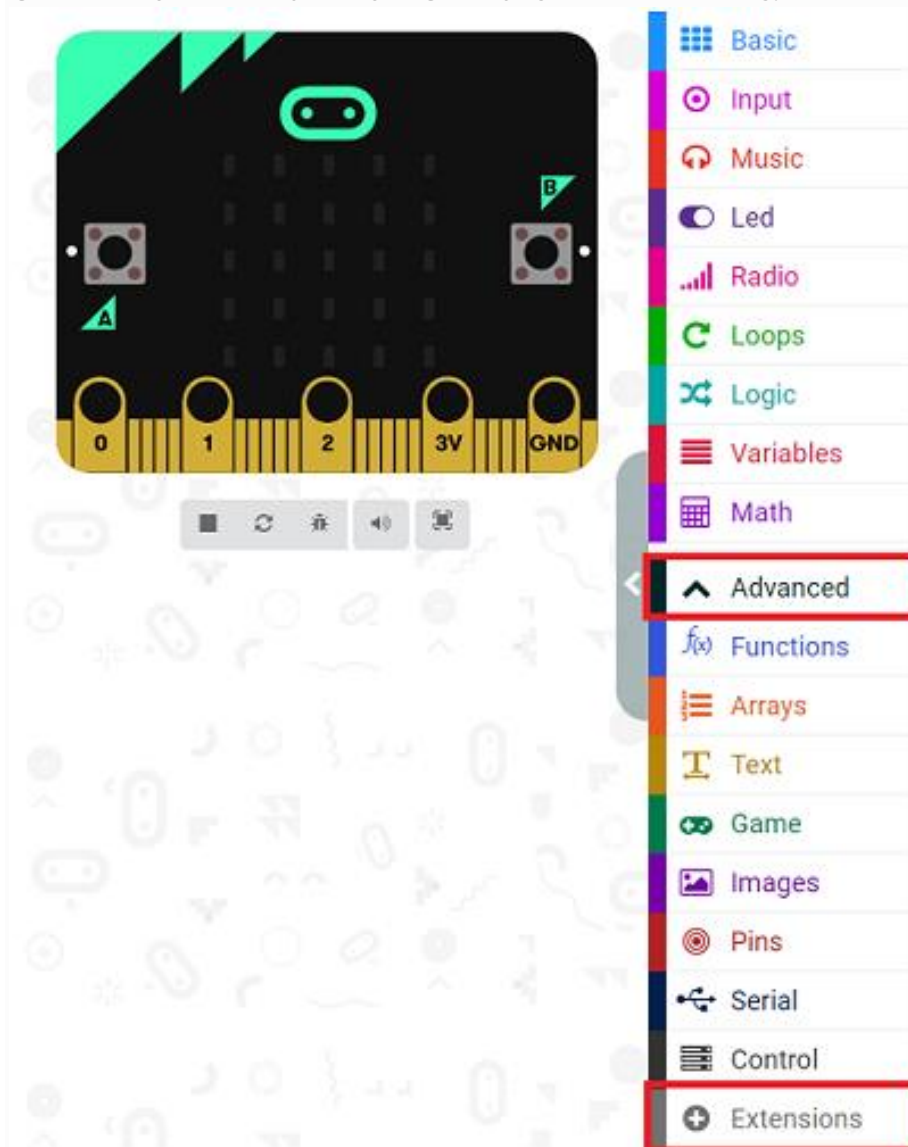
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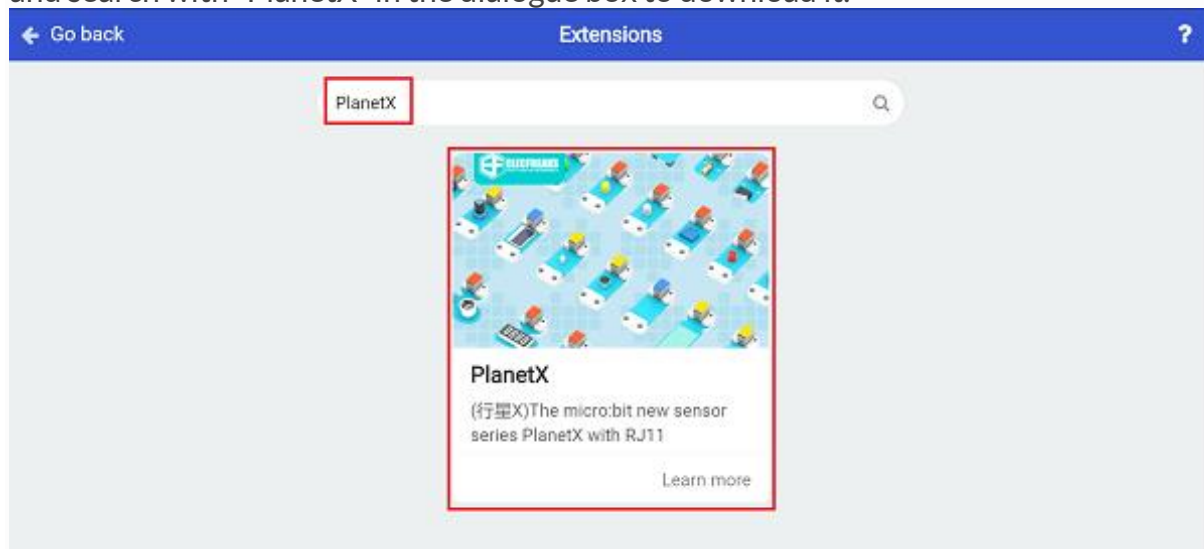
5.3. MakeCode Programming

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:

```
on start
  show icon [grid icon]

forever
  if [Crash Sensor J1] is pressed then
    pause (ms) 200
    set i to 1 - i
  if i = 0 then
    LED [J2] toggle to OFF
  if i = 1 then
    LED [J2] toggle to ON
```

```
indításkor
  ikon megjelenítése

állandóan
  ha [Crash Sensor J1] is pressed akkor
    200 ms szünet
    i legyen 1 - i
  ha i = 0 akkor
    LED [J2] toggle to Ki
  ha i = 1 akkor
    LED [J2] toggle to BE
```

Reference

Link : <https://makecode.microbit.org/J9Lc271kpHiD>

You may also download it directly below:

Result

The crash sensor controls the on/off of the LED.

