

CO2 Gas Sensor(EF05030)

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30.1. Introduction

The higher the CO2 concentration is, the lower the output voltage would be. The CO2 probe is made with industrial grade which is high allergic to CO2 and anti-interference to alcohol and CO.



30.2. Products Link

[ELECFREAKS PlanetX CO2 Sensor](#)

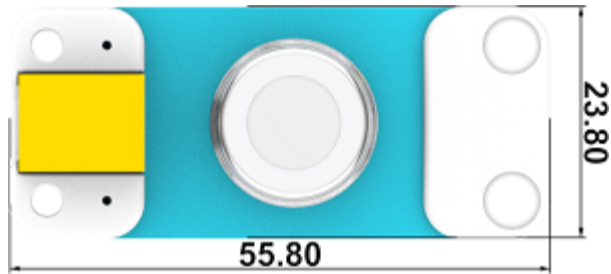
30.3. Characteristic

Designed in RJ11 connections, easy to plug.

30.4. Specification

Item	Parameter
SKU	EF05030
Connection	RJ11
Type of Connection	Analog output
Working Voltage	3.3V

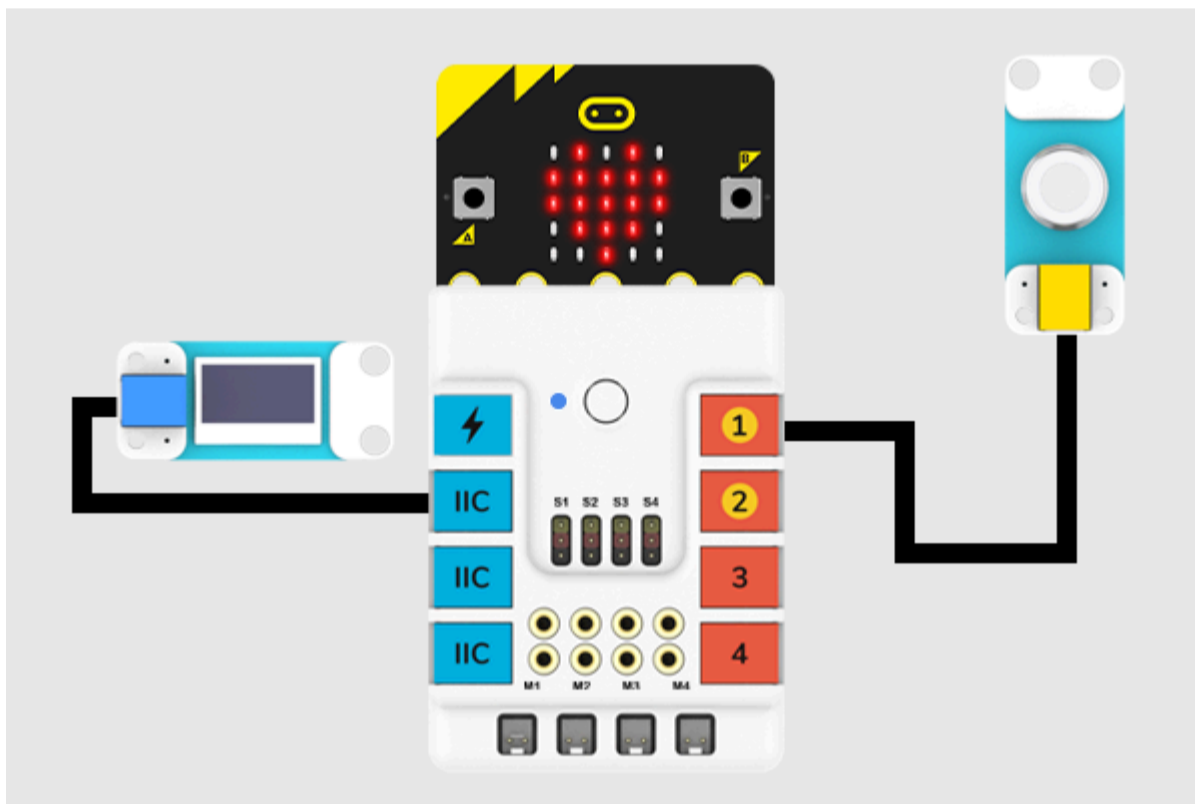
30.5. Outlook



30.6. Quick to Start

30.6.1. Materials Required and Diagram

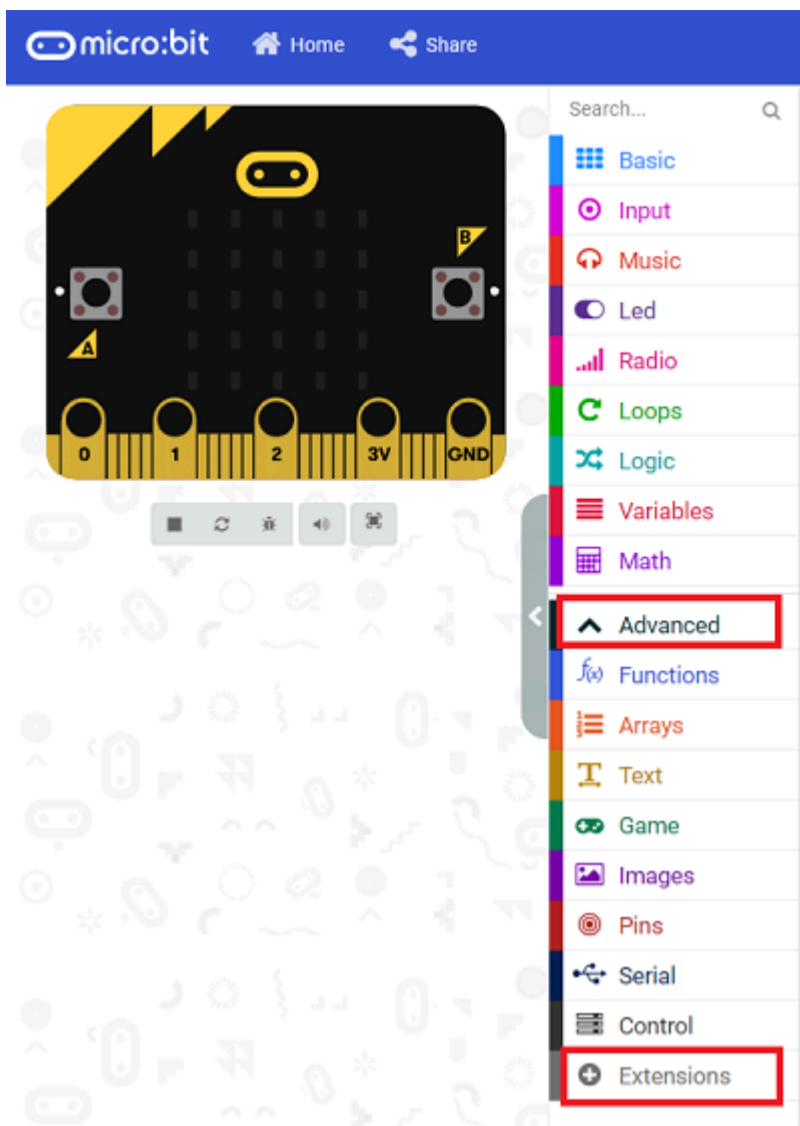
Connect the CO2 sensor to J1 port and the OLED to the IIC port in the Nezha expansion board as the picture shows.



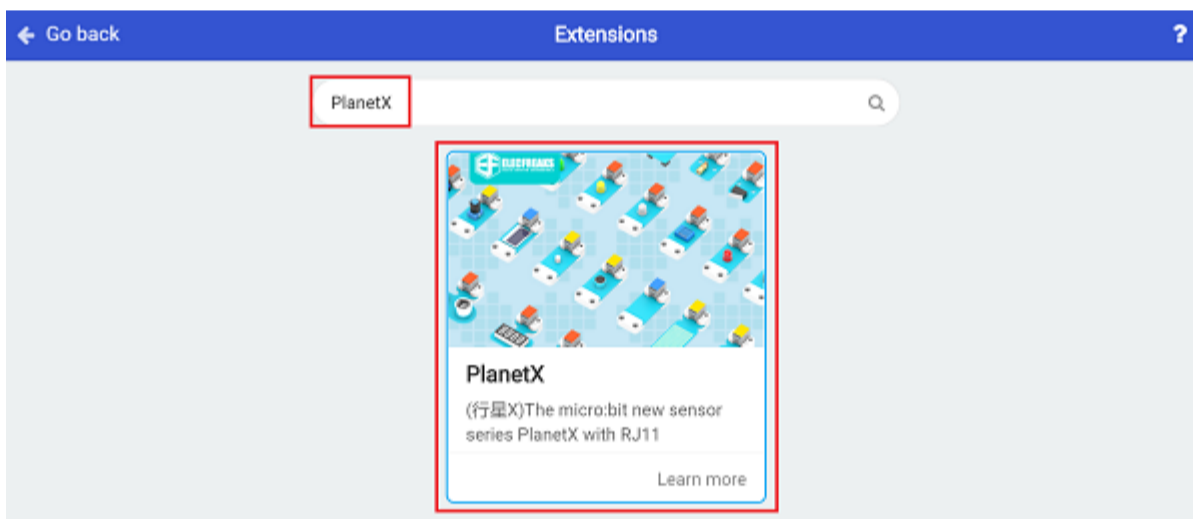
30.7. MakeCode Programming

30.7.1. Step 1

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



We need to add a package for programming, . Click “Extensions” in the bottom of the drawer and search with “PlanetX” in the dialogue box to download it.



Note: If you met a tip indicating that the codebase will be deleted due to incompatibility, you may continue as the tips say or build a new project in the menu.

30.7.2. Step 2

30.7.3. Code as below:



30.7.4. Link

Link: https://makecode.microbit.org/_2mT2MxX236EM

You may also download it directly below:

Simulator Blokke JavaScript Redigér

for altid

OLED show line 1 number Co2 Gas sensor J1 concentration value

Microsoft MakeCode | Brugsbetingelser | Fortrolighed | Hent

30.7.5. Result

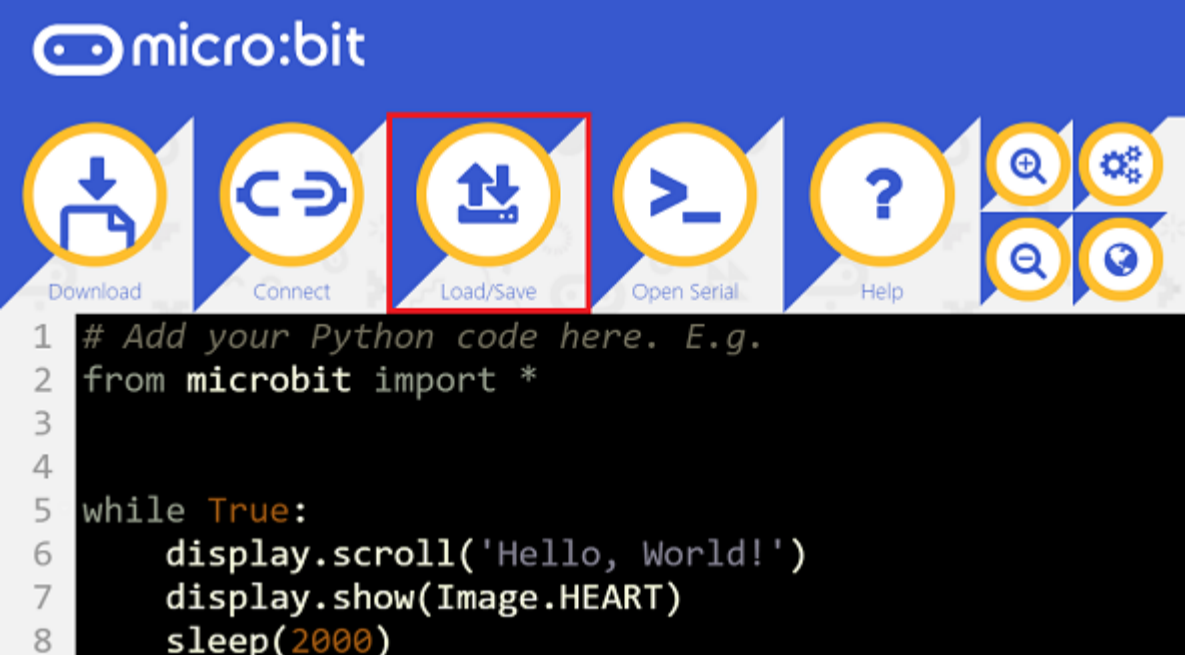
The detected value of the CO2 Gas sensor display on the OLED screen.

30.8. Python Programming

30.8.1. Step 1

Download the package and unzip it: [PlanetX_MicroPython](#)

Go to [Python editor](#)



micro:bit


Download Connect Load/Save Open Serial Help

```


1 # Add your Python code here. E.g.
2 from microbit import *
3
4
5 while True:
6     display.scroll('Hello, World!')
7     display.show(Image.HEART)
8     sleep(2000)


```

We need to add enum.py and CO2.py for programming. Click "Load/Save" and then click "Show Files (1)" to see more choices, click "Add file" to add enum.py and CO2.py from the unzipped package of PlanetX_MicroPython.


 Load ✕

Drag and drop a .hex or .py file in here to open it.
[Or browse for a file.](#)


 Save


 Project Files Files Help

Show Files (1) ▾



 Load ✕

Drag and drop a .hex or .py file in here to open it.
[Or browse for a file.](#)

 Save

 Project Files Files Help

Hide Files ▲

Filename	Size	
microbit program (main.py)	0.25 Kb	 

free

Load

Drag and drop a .hex or .py file in here to open it.
[Or browse for a file.](#)

Save

Download Python Script

Download Project Hex

Project Files

Hide Files ▾

Filename	Size		
microbit program (main.py)	0.25 Kb	Download	Delete
enum.py	0.13 Kb	Download	Delete
co2.py	0.63 Kb	Download	Delete

m...n free

Add file

30.8.2. Step 2

30.8.3. Reference

```
from microbit import *
from enum import *
from co2 import *
co2 = CO2(J1)
while True:
    display.scroll(co2.get_co2())
```

30.8.4. Result

The detected value of the CO2 Gas sensor display on the micro:bit.

30.9. Relevant File

30.10. Technique File

By ELECFREAKS Team

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