CO2 Gas Sensor(EF05030)

Contents

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

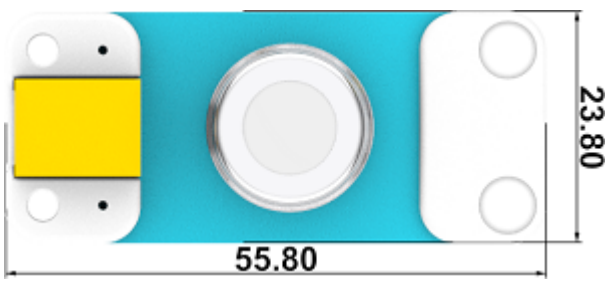
30.3. Characteristic

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

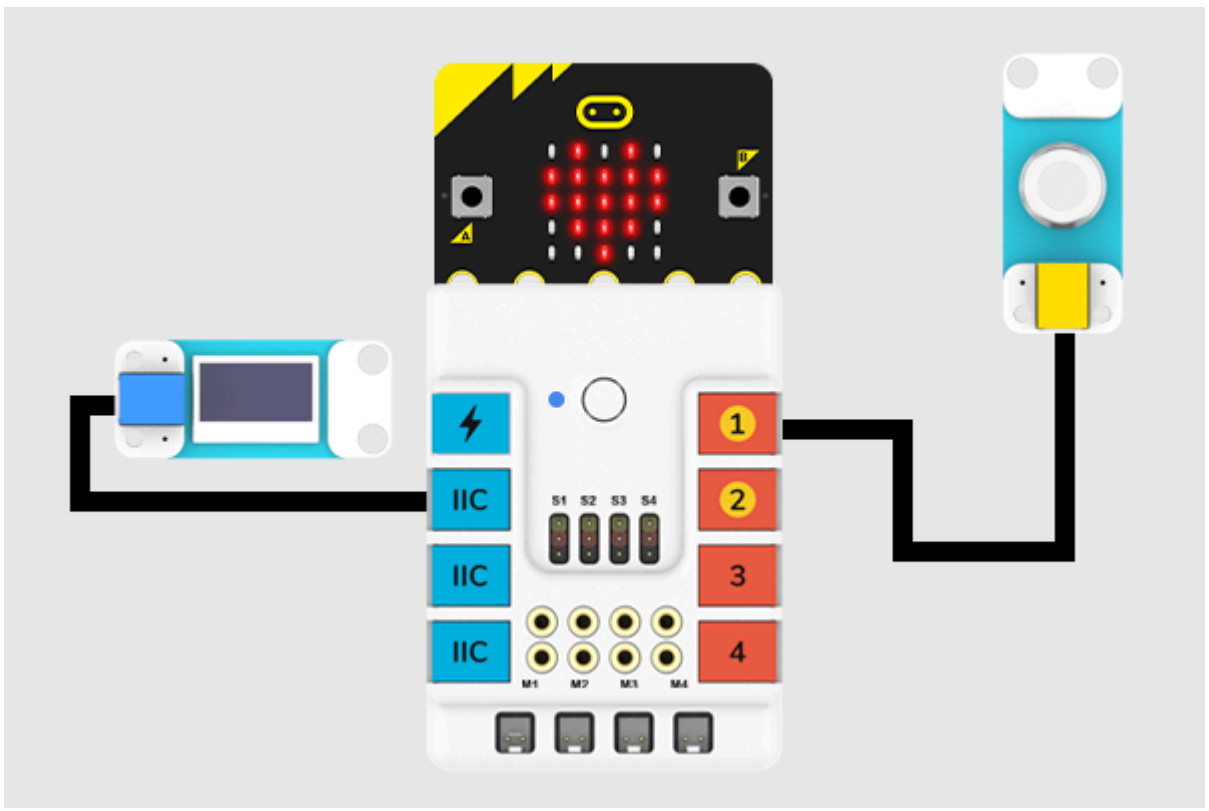
30.5. Outlook



30.6. Quick to Start

30.6.1. Materials Required and Diagram

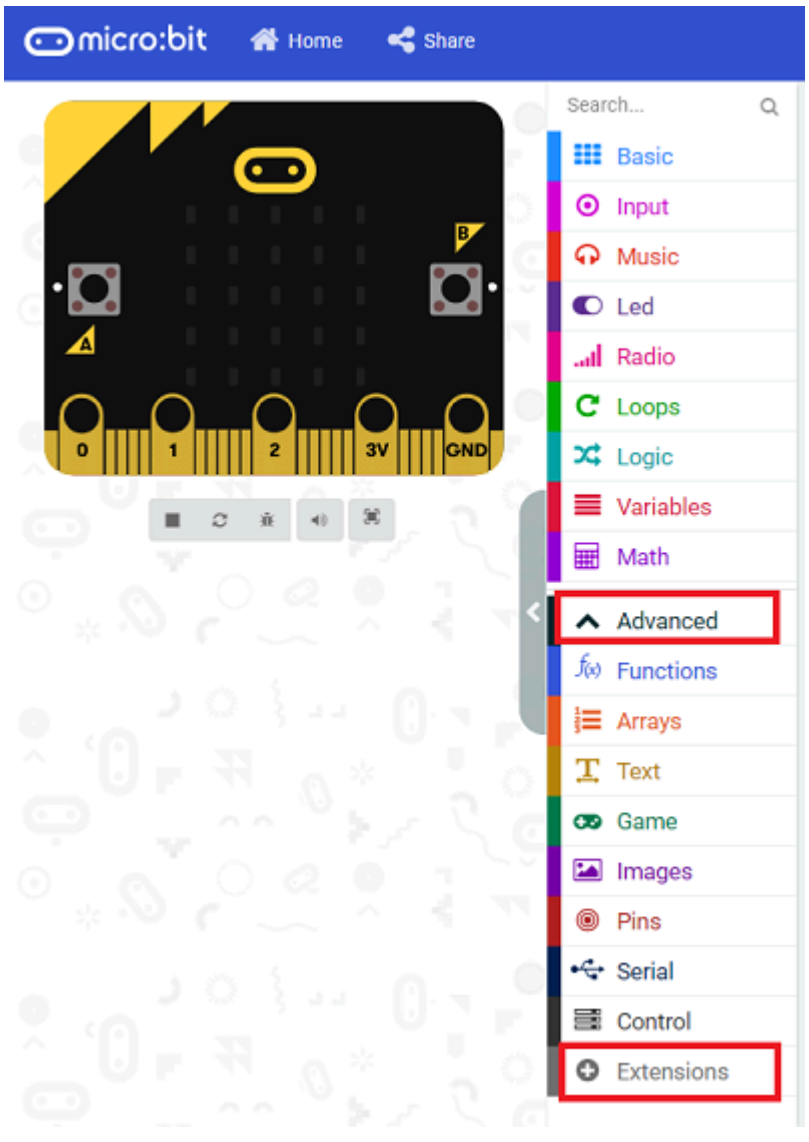
Connect the CO2 sensor to J1 port and the OLED to the IIC port in the Nezha expansion board as the picture shows.



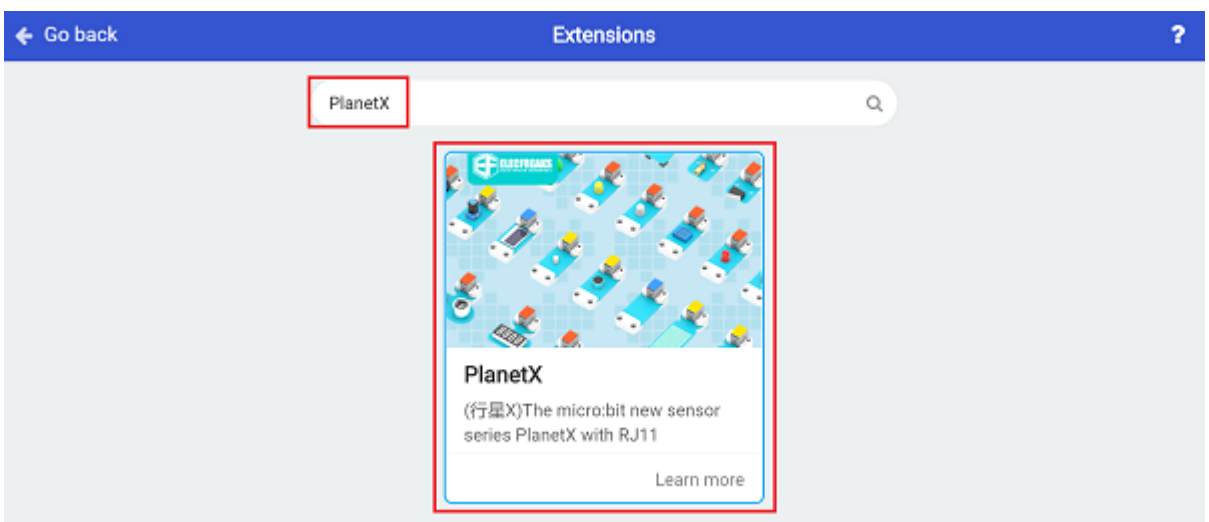
30.7. MakeCode Programming

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.

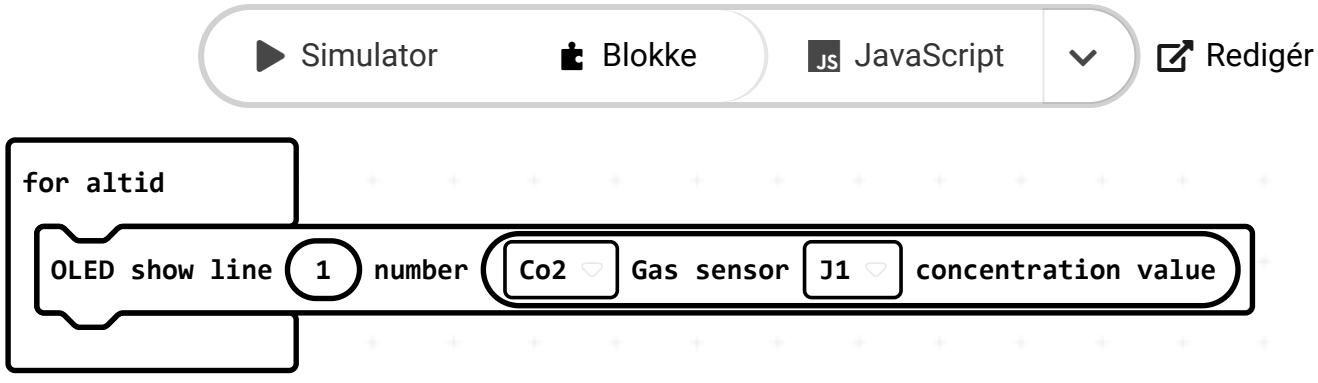
30.7.2. Step 2

30.7.3. Code as below:

30.7.4. Link

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

You may also download it directly below:



30.7.5. Result

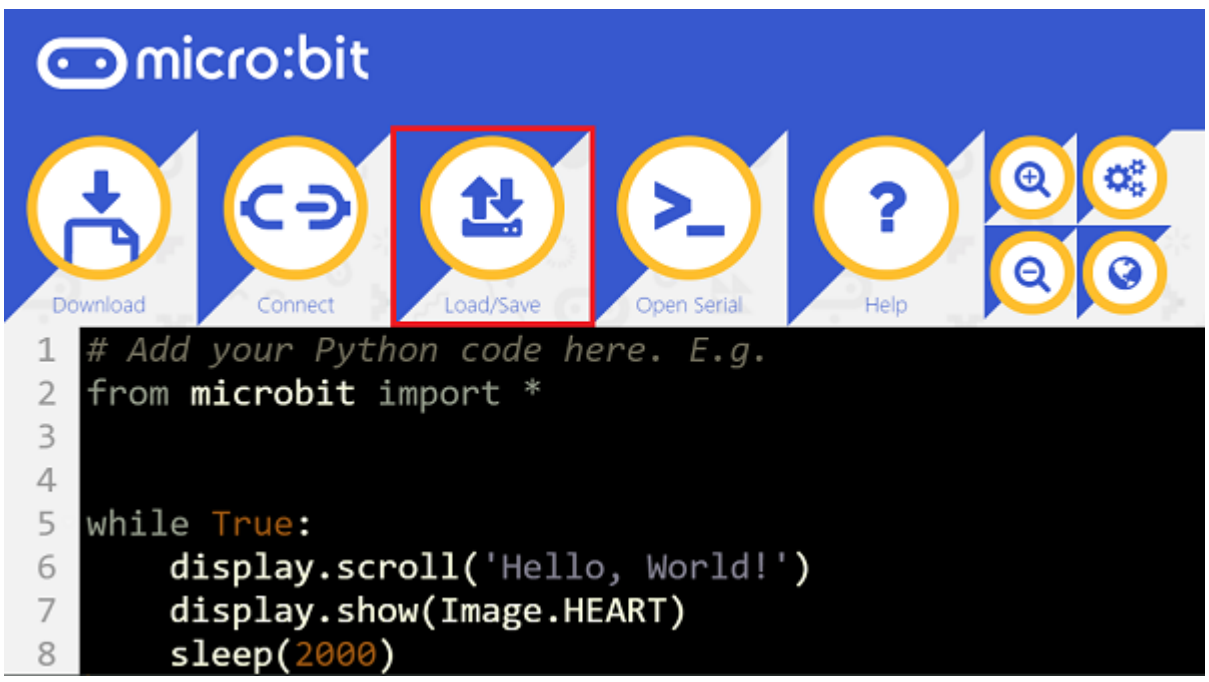
The detected value of the CO2 Gas sensor display on the OLED screen.

30.8. Python Programming

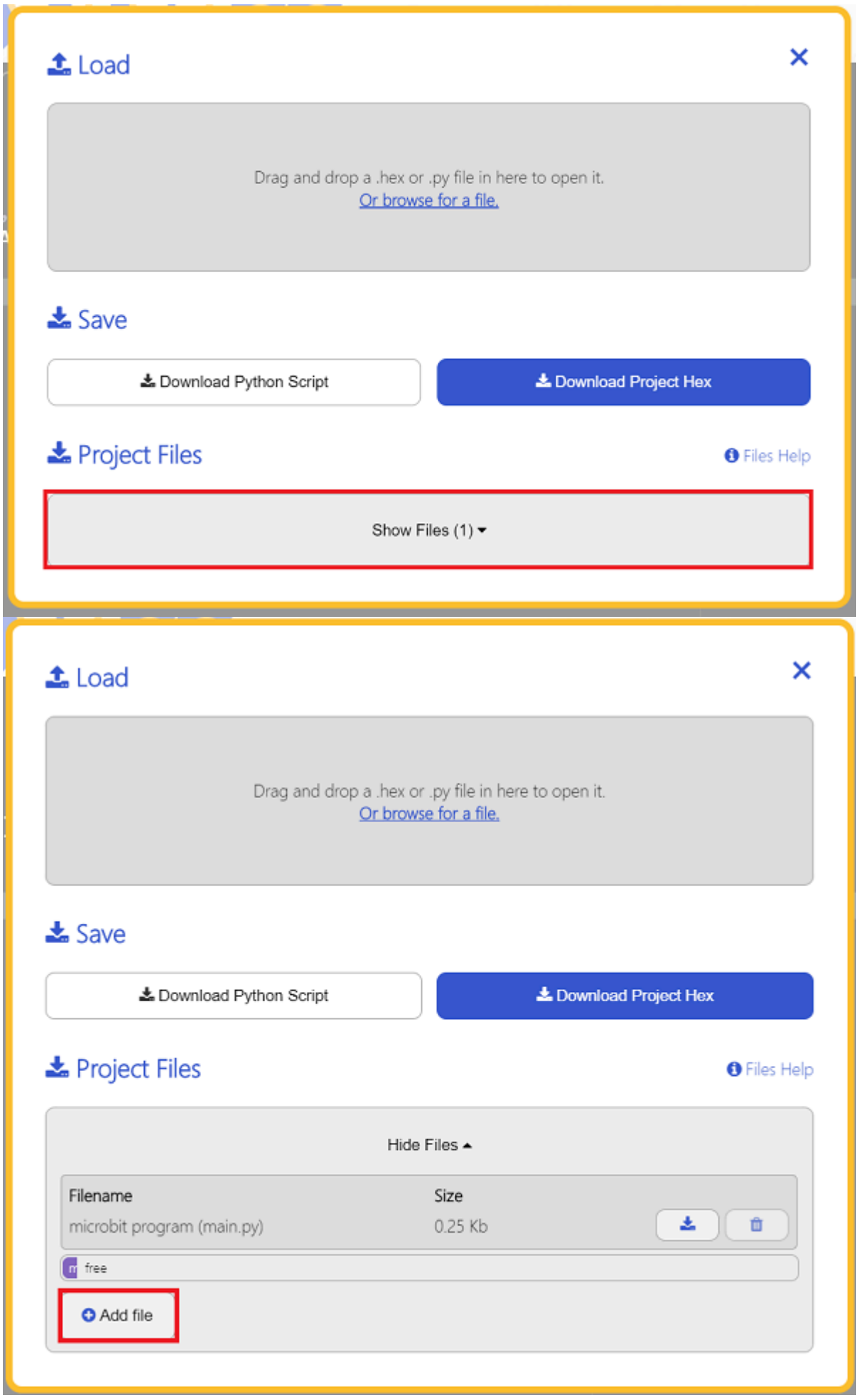
30.8.1. Step 1

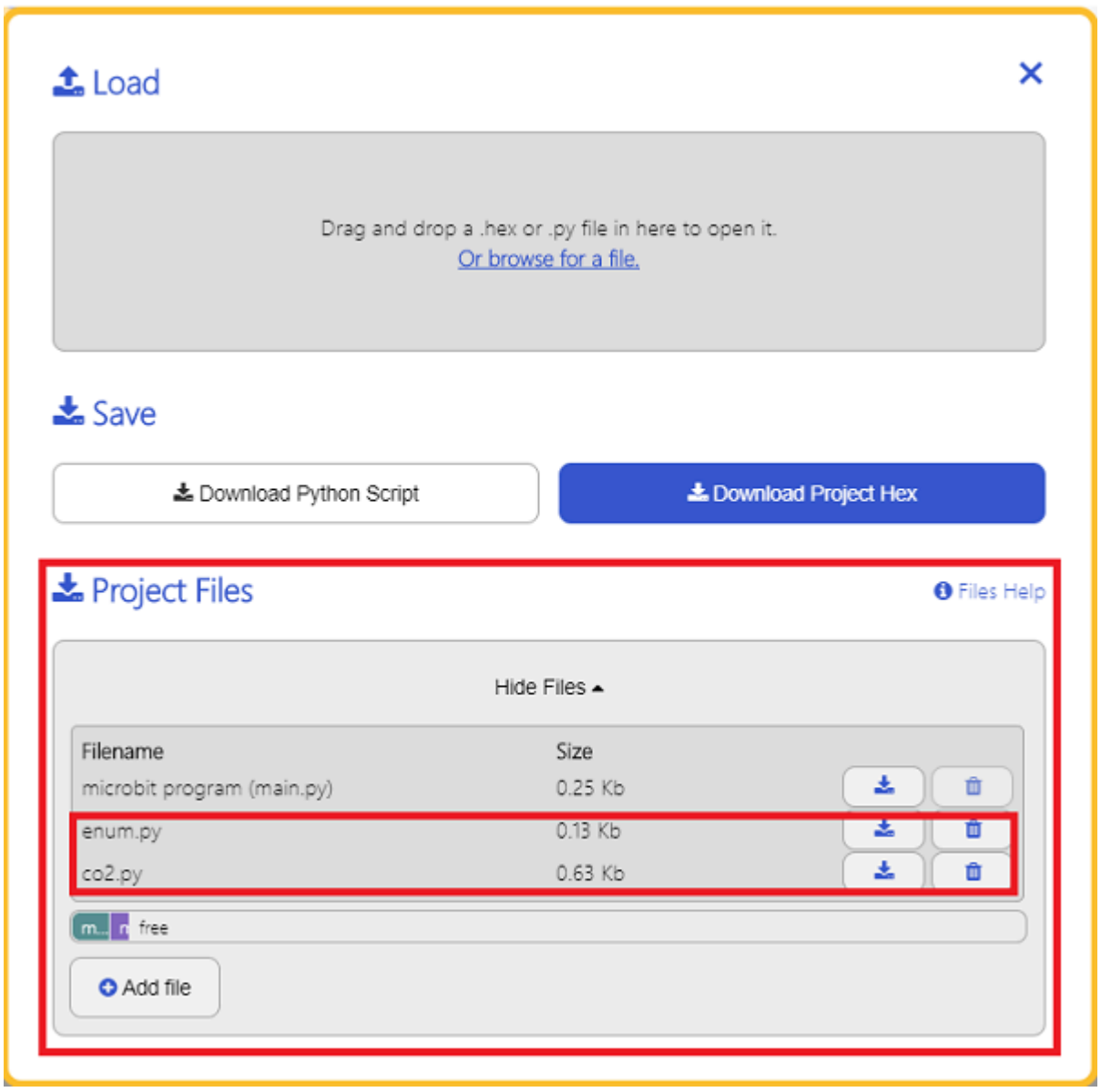
Download the package and unzip it: PlanetX_MicroPython

Go to Python editor



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
Download Python Script
Download Project Hex
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
Download Python Script
Download Project Hex
Project Files
Files Help
Hide Files
Filename
Size
microbit program (main.py)
0.25 Kb
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