**MQ-131 Code Guide** - [Datasheet](https://cdn.sparkfun.com/assets/9/9/6/e/4/mq131-datasheet-low.pdf) - [Library](https://github.com/ostaquet/Arduino-MQ131-driver)

make sure you’ve installed the library first (see part 5 of main guide)

1. Add the following to the **top of your code** to initiate the sensor library

#include <MQ131.h>

1. Add the following code to the as the **setup()** to set up the connection over USB and tell the wemos we’ve wired the sensor to pin A0 then calibrate the sensor.

void setup(){

Serial.begin(115200);

MQ131.begin(2,A0, LOW\_CONCENTRATION, 1000000);

MQ131.calibrate();

Serial.println("Calibration done!");

}

1. Now lets make a **loop()**  where we read the MQ-131 values and relay it back to our computer to see what values we’re getting:

void loop(){

MQ131.sample();

float ozone = MQ131.getO3(PPM);

Serial.print("Concentration O3 (PPM): ");

Serial.println(ozone);

delay(60000);

}

What this code does:

* **Serial begin –** sets the data rate over the USB cable in bits per second
* **Float** “ozone”is a **variable** – we're storing the value of PPM we’re measuring from the MQ-131
* We’ll then **Serial** **print -** display that value on the computer over serial (USB)
* and then **delay** 60000 miliseconds (wait 60 seconds)
* and do another measurement over and over again as this bit of code is inside the loop { }, printing the new value.

1. Click the  verify button to check your code for any errors. If it’s ok it should say ”Done Compiling” at the bottom. If not, double check your code against the code above for any mistakes, if you’re not sure, do ask for help.
2. Now we’ve created some code to read the sensor lets test it! Plug the USB cable into the wemos and click the upload button.
3. Once the code is fully uploaded click the  serial monitor button. Make sure at the bottom right of the serial monitor the baud is set to 115200 baud.

A few things to note:

* This sensor **takes some time** to both calibrate and take readings - give it a few minutes for the calibration to show up, then every 60 seconds you should see a value appear from the sensor.
* You can test the sensor by breathing on it - you should see the number go up