**MQ-135 Code Guide** - [Datasheet](https://www.olimex.com/Products/Components/Sensors/Gas/SNS-MQ135/resources/SNS-MQ135.pdf) - [Library](https://github.com/ViliusKraujutis/MQ135)

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 and tell the wemos you’ve connected the MQ135 to it’s pin A0:

#include "MQ135.h"

MQ135 mq135\_sensor = MQ135(A0);

float temperature = 21.0;

float humidity = 25.0;

1. Guess a rough temperature and humidity for your room and fill those values in the above code. (I’ve put 21C and 25% humidity for my room) This is used to help calculate a ppm value for air quality from the MQ-135 sensor. If you have time you can add a temp/humidity sensor later!
2. Add the following as the **setup()** to set up the communication over usb:

void setup(){

Serial.begin(115200);

}

1. Now lets make a **loop()**  where we read the MQ-135 and relay it back to our computer to see what values we’re getting :

void loop(){

float airquality = mq135\_sensor.getCorrectedPPM(temperature, humidity);

Serial.print("Air Quality (PPM): ");

Serial.println(airquality);

delay(5000);

}

What this code does:

* **Serial begin –** sets the data rate over the USB cable in bits per second
* **Float** “airquality”is a **variable** – we're storing the value of PPM we’re measuring from the MQ-135
* We’ll then **Serial** **print -** display that value on the computer over serial (USB)
* and then **delay** 5000 miliseconds (wait 5 seconds)
* and do another measurement over and over again as this bit of code is inside the loop { }, writing a new value to “airquality” and printing that 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. Every 5 seconds you should see a value appear from the sensor.

A few things to note:

* takes 60 seconds to heat up the sensor to get good readings (you want numbers in the hundreds)
* You can test the sensor by breathing on it - you should see the number go up because of CO2 levels!