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The MQ series of gas sensors use a small heater inside with an electro-chemical sensor. They are sensitive for a range of gasses and are used indoors at room temperature. The output is an analog signal and can be read with an analog input of the Arduino.

The MQ-2 Gas Sensor module is useful for gas leakage detecting in home and industry. It can detect LPG, i-butane, propane, methane ,alcohol, hydrogen and smoke.

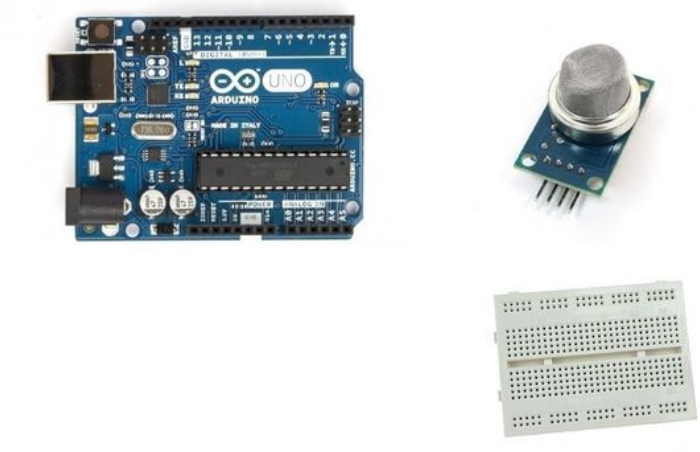
Some modules have a built-in variable resistor to adjust the sensitivity of the sensor.

Note: The sensor becomes very hot after a while, don't touch it!

In this tutorial we will use the serial monitor of Codebender (or Arduino IDE) to see how the sensor acts in variable gasses.

So, let's get started!

Step 1: What you will need



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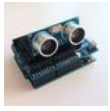

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For this tutorial you will need:

- Arduino uno
- Breadboard
- MQ-2 Gas sensor module

Step 2: The Circuit

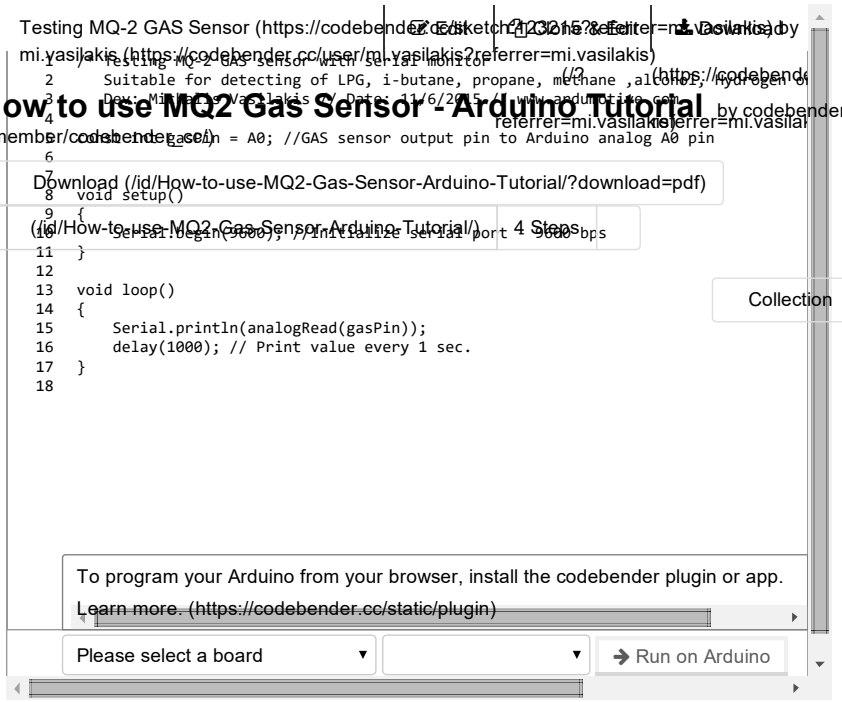
The connections are pretty easy:

- Vcc to Arduino 5V pin
- GND to Arduino GND pin
- Output to Arduino Analog A0 pin

Note: The sensor becomes very hot after a while, don't touch it!

Step 3: The Code

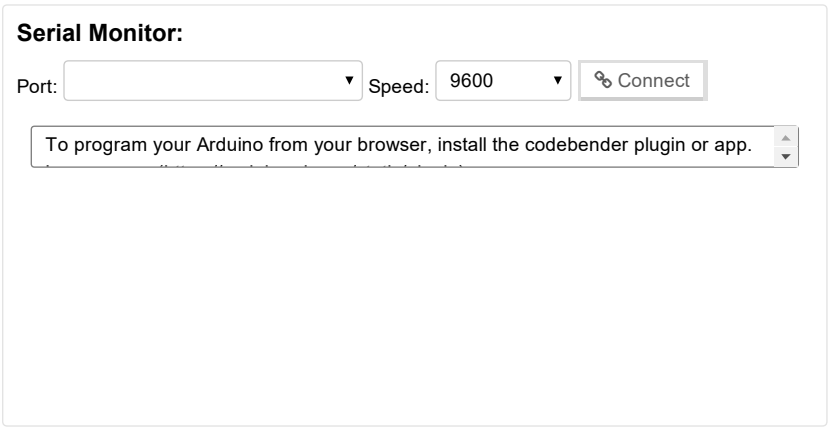
Here's the code, embedded using Codebender!



Try downloading the codebender plugin and clicking on the Run on Arduino button to program your Arduino with this sketch. And that's it, you've programmed your Arduino board! Press connect button to start serial communication with your Arduino board.

Now you can try this:

Take a lighter and press the button to release gas near the sensor. Observe values on serial monitor.



You can keep playing with that by clicking the "Edit" button and start making your own modifications to the code.

Step 4: Well done!

You have successfully completed one more Arduino "How to" tutorial and you learned how to use the MQ-2 Gas sensor with Arduino.

Tip: You can use this tutorial to read values from all MQ gas sensors (MQ-2, MQ-3, MQ-4, MQ-5, MQ-6, MQ-7, etc)

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Please be positive and constructive.

I Made it! Add Images Make Comment

LukasS8 (/member/LukasS8/) 23 days ago Reply

Hey could one arduino power all MQ Sensors (MQ-2,3,4,5,6,7..) or would it need to much current?

(/member/LukasS8/)

codebender_cc (/member/codebender_cc/) (author) LukasS8 19 days ago Reply

I don't know... maybe you will need an external power source.

(/member/codebender_cc/)

ssingh176 (/member/ssingh176/) 2 months ago Reply

great

(/member/ssingh176/)

samuel123abc (/member/samuel123abc/) 2 months ago Reply

Great tutorial. Thanks for sharing!

(/member/samuel123abc/)

dmwatkins (/member/dmwatkins/) 2 months ago Reply

Thanks! I've been wanting to get one of these....
I had an idea that would make a great gift for my buddy's wife. He's got this talent for creating rather potent digestion byproducts, often without auditory

(/member/dmwatkins/)

warning . An MQ and uC embedded between vehicle seat bottom and back could be used to trigger a relay to automatically drop the power windows.


(/member/j450nn014n/)

j450nn014n (/member/j450nn014n/) dmwatkins 2 months ago Reply

qtechnow has a methane (fart) module for sale using the MQ-4 sensor. Going to use it for a robot in a daycare centre that response when it gets close to the diaper change table.
http://www.qtechknow.com/products/9203


(/member/billbillt/)

billbillt (/member/billbillt/) 2 months ago Reply

Yes, Thanks!.... I have been looking for a tutorial about these inexpensive gas sensors...

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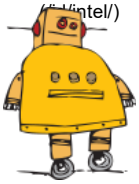

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