MQ-X Gas sensor kit

Technical Manual Rev 3r0

MQ- 2 and MQ-5   MQ- 7

The e-Gizmo MQ-x Gas sensor kit is a simple MQ-x Gas sensor for your projects. MQx Gas sensor are used in gas leakage detections like alcohol*, natural gas, smoke, LPGs (see MQs Datasheet). On board indicator status for HIGH, MEDIUM, LOW sensed from the MQ-x sensor. Compatible with your gizDuino board or any other MCU.

Features:

- Can be replace MQ-x gas sensor (MQ-2, MQ-5,MQ-7) in one board.
- with LOW, MEDIUM, HIGH indicator output in gas detecting
- with adjustable potentiometer for sensitivity

General Specifications:

Input supply voltage: 7 ~ 9VDC
Output: Digital and Analog
Type sensosr: MQ-2/MQ-5/MQ-7
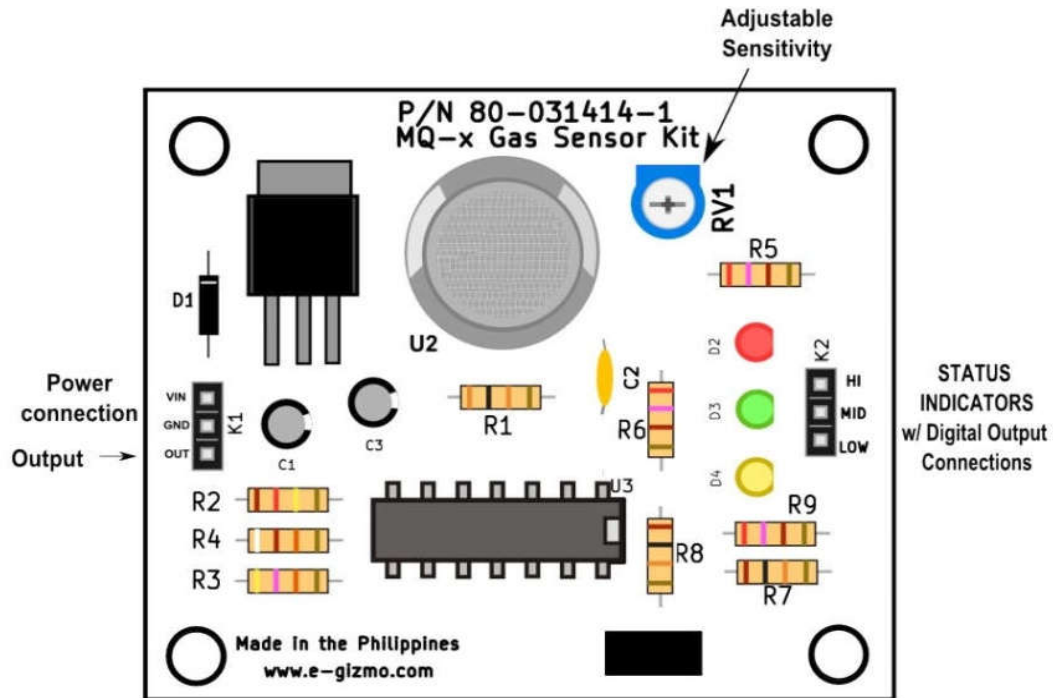*PCB Dimensions:* 49mm x 60mm

          MQ-X Gas sensor kit

Figure 1: Major parts presentation of e-Gizmo MQ-x gas sensor kit can replace MQ-5 and MQ-2 gas sensor in one board to choose from.

Table 1: K1 and K2 connections and descriptions

PIN NAME	Descriptions
VCC	+7 to 9 VDC Supply
GND	Ground connection
OUT	Ouput from MQ-x (mV)
HI	High Indicator Status
MID	Medium Indicator Status
LOW	Low indicator Status

Table 2: RV1 connections and descriptions

PIN NAME	Descriptions
RV1	For sensitivity calibration

* alcohol-tested in MQ-5 & MQ-2. Adjust the RV1 a little, then make sure the 3-status LED indicator is off and then try to test it using alcohol near on the Gas sensor. (You can see the Low indicator will turn on, if longer immersed the mid and high sensor will turn on.)
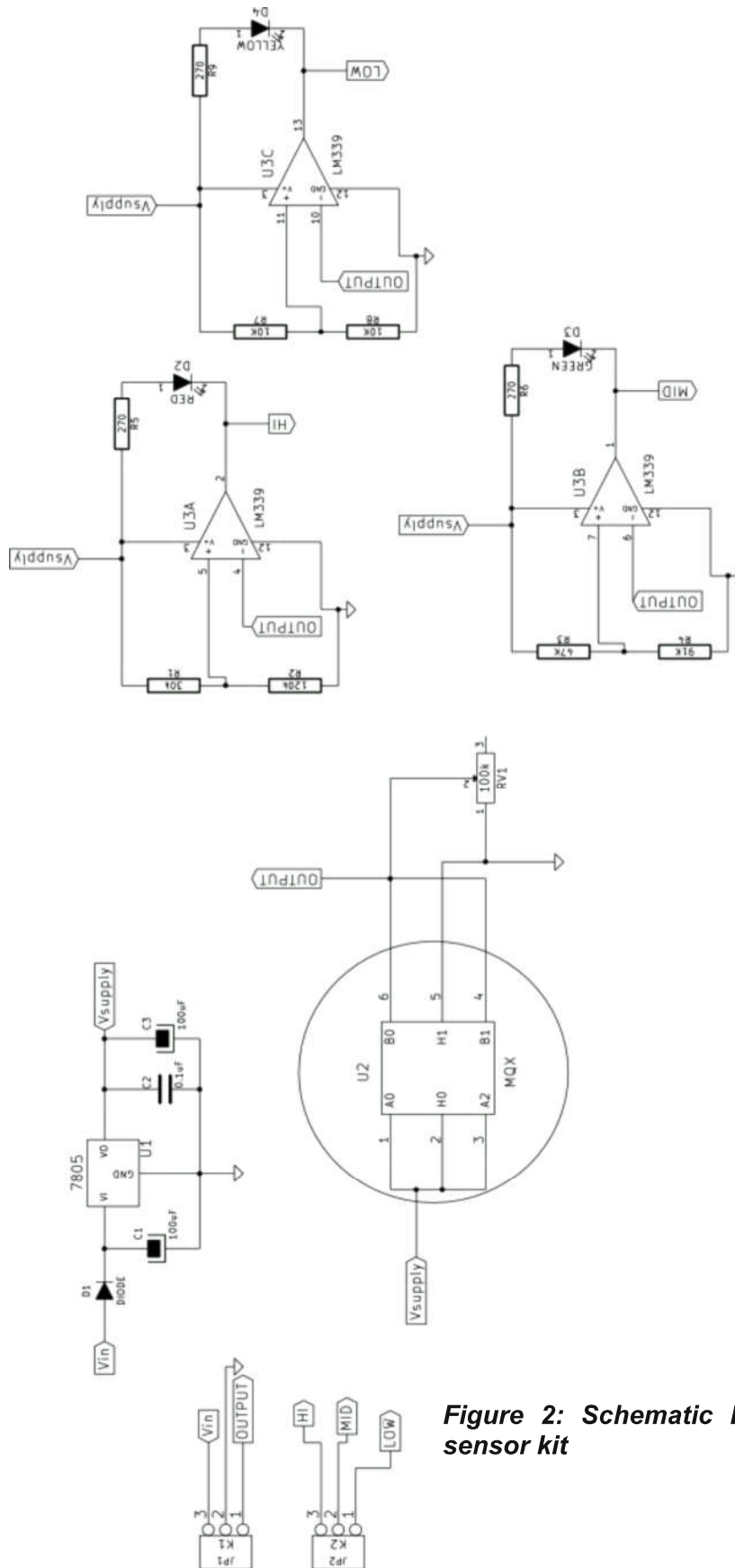
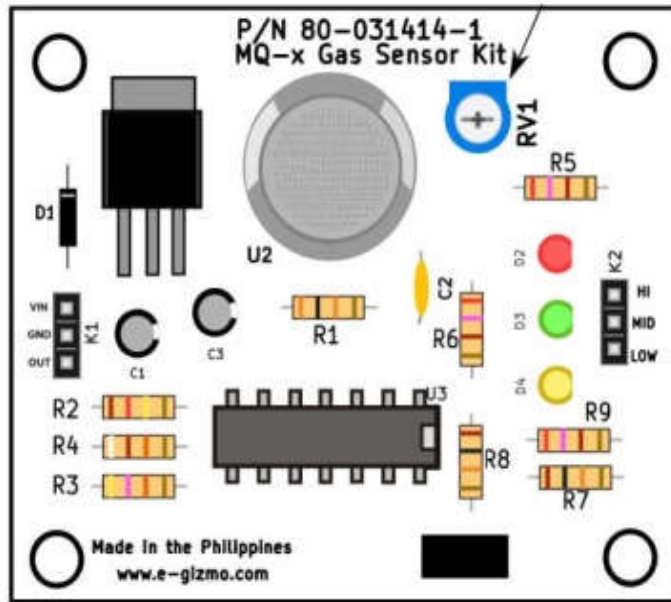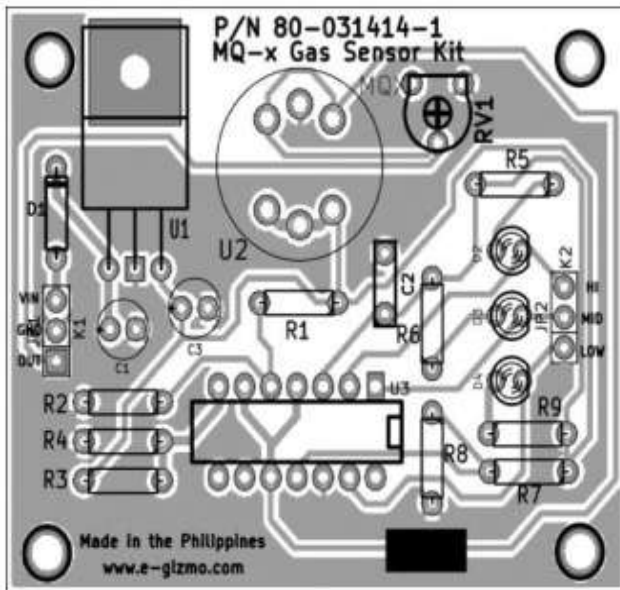Figure 2: Schematic Diagram of MQ-Gas sensor kit

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Figure 3. Parts Placement

Figure 4. Bottom PCB Guide

Figure 5. Top PCB Guide

Wiring connections

gizDuinoPLUS		MQ-x Gas sensor
VIN	------>	VIN
GND	------>	GND
PIN 5	------>	LOW
PIN 6	------>	MID
PIN 7	------>	HIGH

7 to 9 VDC

USB CABLE miniType B
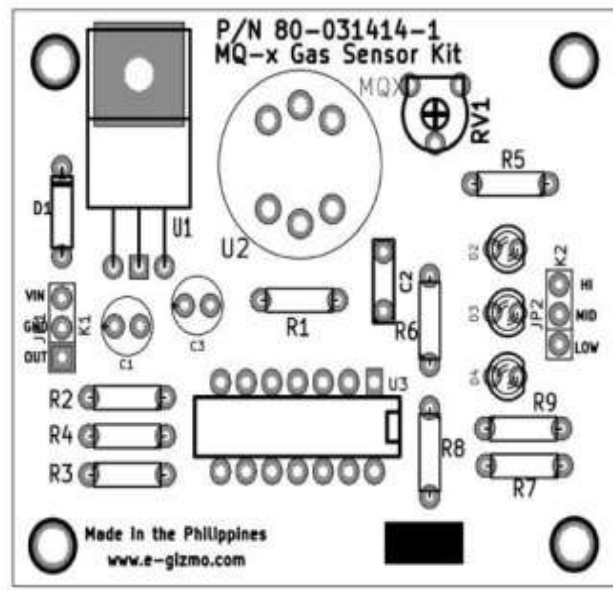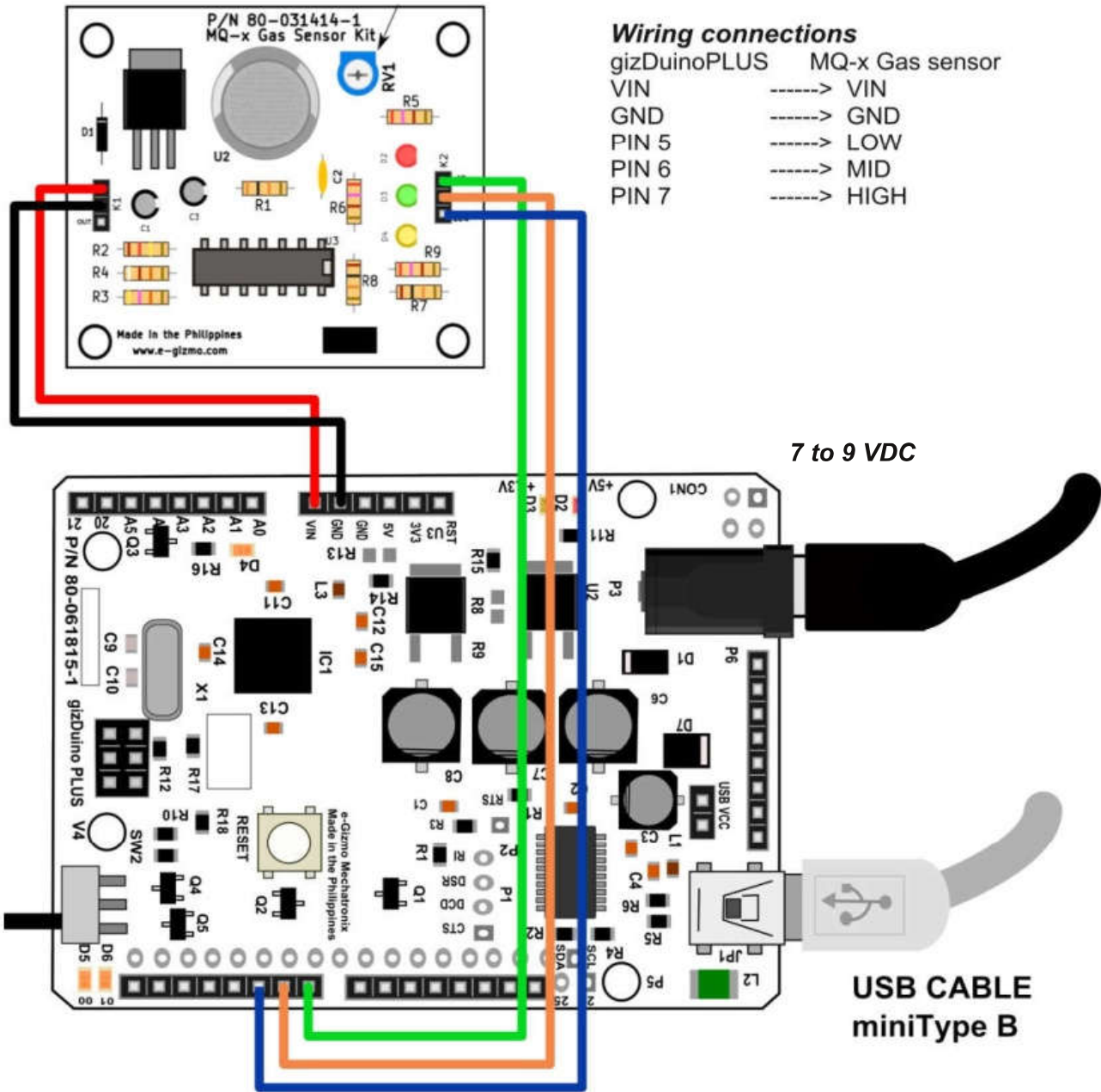
Upload this code to the gizDuino PLUS Microcontroller.
then Open the Serial Monitor.

```
/*
  e-Gizmo MQ-x Gas sensor kit

  Reads an digital output on pins and
  prints the result to the serial monitor.

  This example code is in the public domain.

  Connections:
   Gizduino      MQ-x Gas sensor kit
    VIN   ----->     VIN
    GND   ----->     GND
    D5    ----->     LOW
    D6    ----->     MID
    D7    ----->     HIGH

  by:
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  http://www.e-gizmo.com
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*/

// the setup routine runs once when you press reset:
void setup() {
  // initialize serial communication at 9600 bits per second:
  Serial.begin(9600);
}

// the loop routine runs over and over again forever:
void loop() {
  // read the input on digital pins:
  int LOW_indicator = digitalRead(5);
  int MID_indicator = digitalRead(6);
  int HIGH_indicator = digitalRead(7);

  // print out the value you read:
  Serial.print("LOW = ");
  Serial.print(LOW_indicator);
  Serial.print(" MID = ");
  Serial.print(MID_indicator);
  Serial.print(" HIGH = ");
  Serial.println(HIGH_indicator);

}
```