Using Smoke Sensor with Raspberry-Pi

About Smoke Sensor:

Sensitive material of MQ-2 gas sensor is SnO2, which with lower conductivity in clean air. When the target combustible gas exist, The sensor's conductivity is more higher along with the gas concentration rising.

Pin Connection:



Connect the pins of the Sensor to raspberry-pi as follows:

```
Pin of Sensor → Pin of Raspberry-Pi

Vcc → Pin 1

GND → Pin 6

D0 (meaning: digital output) → Pin 7(GPIO 4)

A0 (meaning: digital output) → <none>(We are not using this pin)
```

Also note that there is an adjustable screw in the sensor, and 2 LEDs of which one LED in red color indicates that it is connected to the power source and the other is green which indicates that digital output (D0) pin is providing an logic HIGH output.

Hence adjust the screw such that when the flame is detected the green light must appear, and the green light must go off when there is not flame.

Code:

```
from time import sleep
import RPi.GPIO as GPIO
GPIO.setmode(GPIO.BCM)
GPIO.setup(4,GPIO.IN)
while True:
    try:
        if (GPIO.input(4)==0):
            print("Smoke Detected! Move to safety")
        else:
            print("No Smoke! you are in SAFE zoone")
        sleep(1)
        except KeyboardInterrupt:
            exit()
GPIO.cleanup()
```