	Marwadi University **Faculty of Technology** **Department of Information and Communication Technology**		
Subject: Foundation Skills in Sensor Interfacing (01CT11032)	**Aim:** To interface MQ2 Gas Sensor with Arduino UNO		
Experiment No: 05	**Date: 20-1-22**	**Enrolment No: 92100133020**	

Aim: To interface MQ2 gas sensor with Arduino UNO.

Apparatus: MQ2 gas sensor, Arduino UNO, Jumper wire

Theory: So basically what is MQ2 gas sensor, MQ2 gas sensor is an electronic sensor used for sensing the concentration of gases in the air such as LPG, propane, methane, hydrogen, alcohol, smoke and carbon monoxide. It contains a sensing material whose resistance changes when it comes in contact with the gas. In this experiment we are going to interface MQ2 gas sensor with Arduino, there are four pins in MQ2 gas sensor, Vcc, GND, D0, A0, the Vcc pin is connected to 5V, D0 pin is connected Digital pin, A0 pin is connected to Analog pin. And by writing code in Arduino IDE the sensor will detect smoke and display it in serial monitor that whether the smoke is detected or not.

Interfacing Diagram:

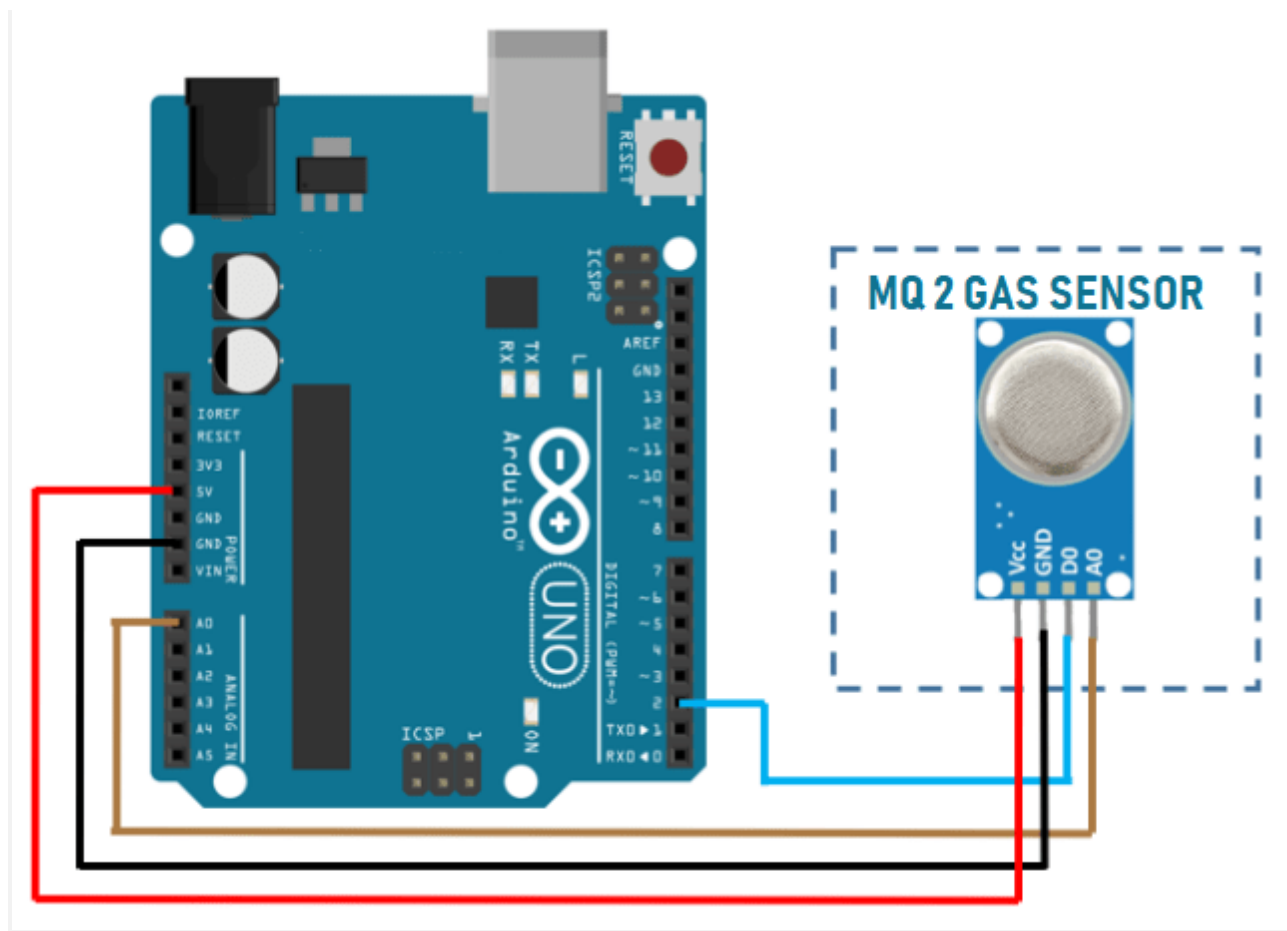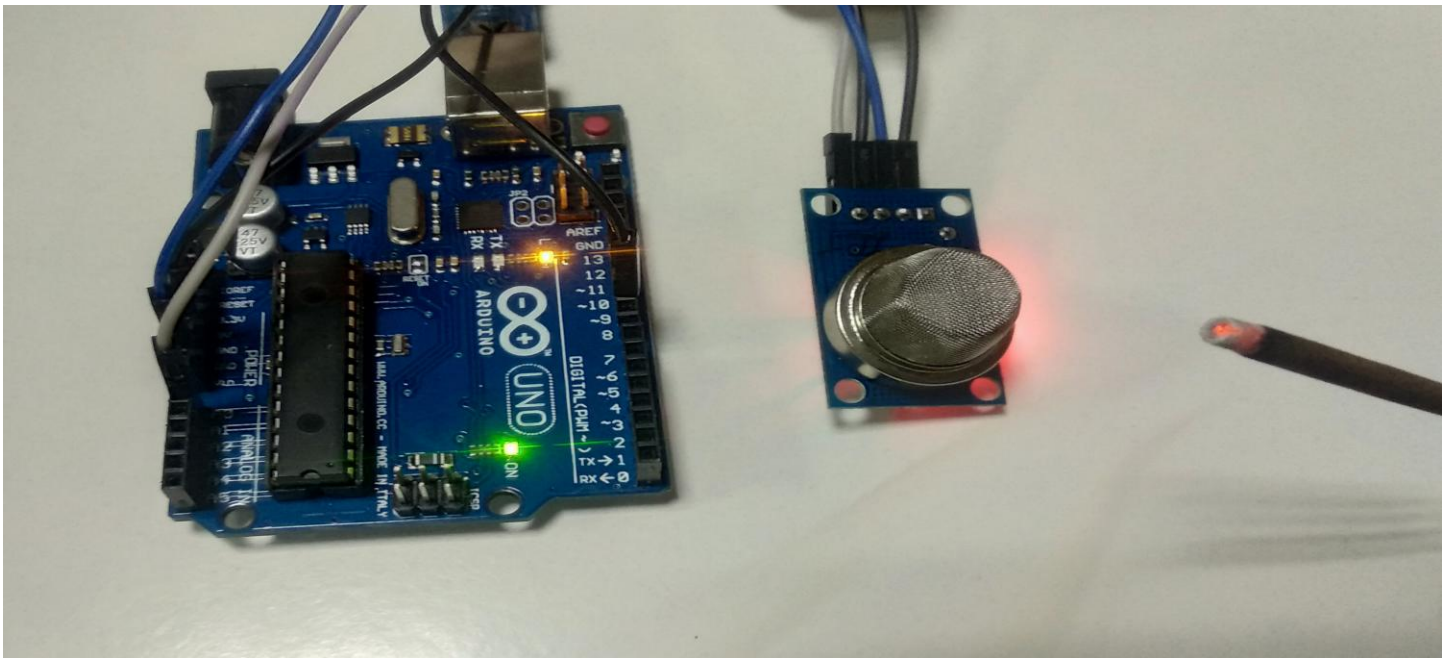|	Marwadi University
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Code:

```
#define MQ2pin (0)
float sensorValue;
void setup()
{
Serial.begin(9600);
Serial.println("Gas sensor warming up! ");
pinMode(10,OUTPUT);
delay(2000);
}
void loop()
{
sensorValue = analogRead(MQ2pin);
Serial.print("sensor Value : ");
Serial.print(sensorValue);
if(sensorValue > 300)
{
Serial.print("\n | Smoke dectected! ");
pinMode(10,OUTPUT);
}
Else
{
Serial.print("\n | Smoke not dectected! ")
}
```

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Output:

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Conclusion: From this experiment we learnt how to interface MQ2 gas sensor with Arduino, how to code for that and after coding we get the detected data in the serial monitor.