

Assignment -1
Home Automation

Assignment Date	13 September 2022
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Maximum Marks	2 Marks

Question-1:

Make a Smart Home in Tinker cad, using 2+sensors, Led, Buzzer in single code and circuit.

Code:

```
#include <LiquidCrystal>
LiquidCrystal lcd(2,3,4,5,6,7);
#include <SoftwareSerial.h> SoftwareSerial mySerial(9, IO); int gas Value= AO; //
smoke / gas sensor connected with analog pin A I of the arduino / mega.
int data= 0; int buzzer = 13; int G_led = 8; //
choose the pin for the Green LED int R_led = 9; //
choose the pin for the Red Led void setup()
{
pinMode(buzzer,OUTPUT);
pinMode(R_led,OUTPUT); // declare Red LED as output
pinMode(G_led,OUTPUT); // declare Green LED as output
randomSeed( analogRead(0) );
mySerial.begin(9600); // Setting the baud rate of GSM ModuJe
Serial.begin(9600); // Setting the baud rate of Serial Monitor (Arduino)
led.begin( 16,2);
pinMode(gasValue, INPUT);
led.print (" Gas Leakage ");
led.setCursor(0, 1 ); led.print
(" Detector Alarm ");
delay(3000); led.clear(); }
void loop()
{
data= analogRead(gasValue);
Serial.print("Gas Level: ");
Serial.println(data); led.print
("Gas Scan is ON");
led.setCursor(0, 1);
led.print("Gas Level: "); led.
print( data); delay( 1000); if
( data > 90) //
{
```

```

digitalWrite(buzzer, HIGH); digitalWrite(R_
led, HIGH); // Turn LED on.
digitalWrite(G_led, LOW); // Turn LED off.
SendMessage();
Serial.print("Gas detect alarm");
led.clear(); lcd.setCursor{0,0);
led.print("Gas Level Exceed");
led.setCursor{0, 1);
led.print("SMS Sent");
delay( 1 000);
} else
{
digitalWrite(buzzer, LOW); digitalWrite(R_
led, LOW);// Turn LED off.
digitalWrite(G_led, HIGH);// Turn LED on.
Serial.print("Gas Level Low");
led.clear(); lcd.setCursor(0,0);
led.print("Gas Level NonnaJ");
delay( 1 000); }
Icd.clearO;
} void
SendMessageO
{
Serial.println("I am in send");
mySerial.println(" AT +CMGF= 1"); //Sets the GSM Module in Text Mode
delay( 1000); // Delay of 1000 milliseconds or 1 second
mySerial.println("AT+CMGS=\"+91x:xxxxx:xxxx\"r"); // Replace x with mobile
number
delay( 1 000);
mySerial.println("Excess Gas Detected.");// The SMS text you want to send
mySerial. println( data); delay( 1 00);
mySerial.println((char)26)// ASCII code ofCTRL+Z delay(
1 000);
}

```

Circuit Diagram :

