

ASSIGNMENT 1

Assignment Date	12 September 2022
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Max Marks	2

Question-1:

Build an smarthome iot device using an audrino uno microcontroller and attach at least 2 sensors in it .

```
// C++ code
//
int gasSensor=A1;
int buzzer=13;
int led=12;
int motor=5;

void setup()
{
  pinMode(gasSensor, INPUT);
  pinMode(buzzer,OUTPUT);
  pinMode(led,OUTPUT);
  pinMode(motor,OUTPUT);
  Serial.begin(9600);
}

void loop()
{
  int sensorValue=analogRead(A1);
  Serial.print("GAS SENSOR LEVEL: ");
  Serial.println(sensorValue);
  delay(2000); // Wait for 2000 millisecond(s)

  if(sensorValue>200) //if sensor level detects above 200 buzzer sound will
produce
  {
    digitalWrite(buzzer,HIGH); // buzzer will turn on

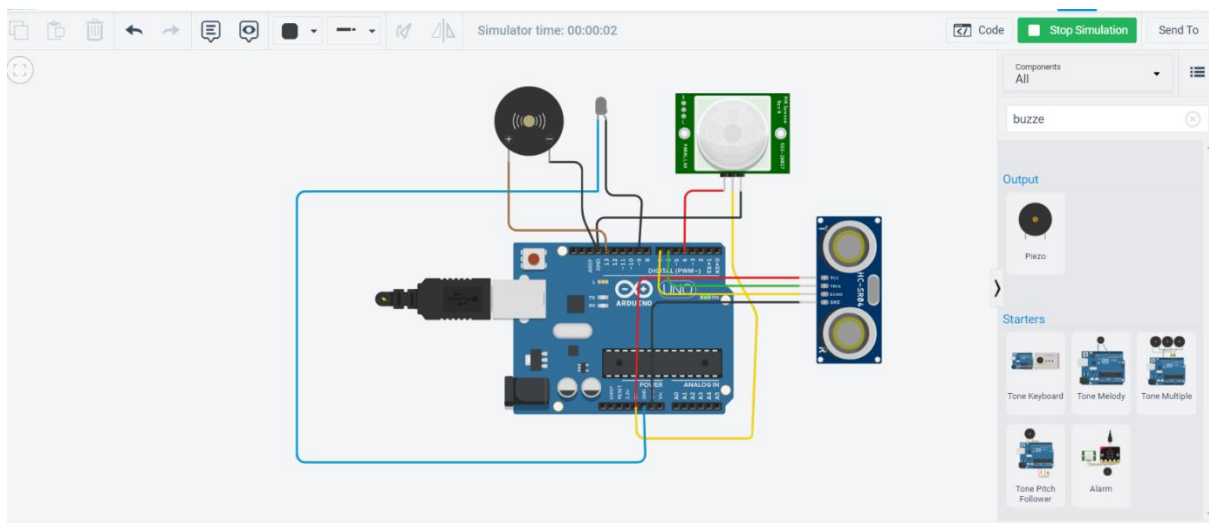
    digitalWrite(led,HIGH); // led will glow

    digitalWrite(motor,HIGH); // exhaust fan will turn on
  }
  else
  {
    digitalWrite(buzzer,LOW);
    digitalWrite(led,LOW);
    digitalWrite(motor,LOW);
  }
}
```

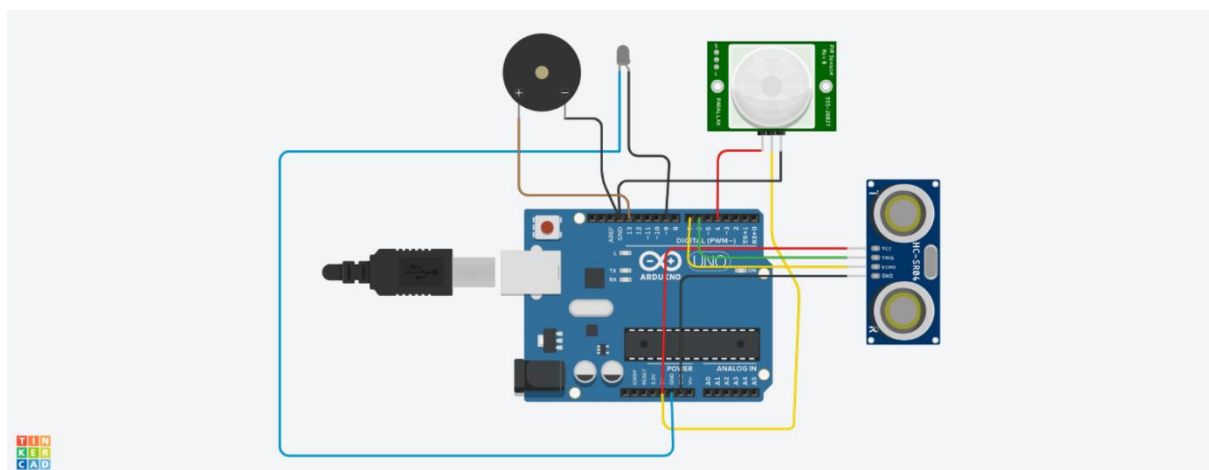
Components

Name	Quantity	Component
D1	1	Gas Sensor
Piezo 1	1	Piezo
D1	1	Red Led
M1	1	Dc Motor
U1	1	Arduino Uno R3

CIRCUIT DIAGRAM:



SIMULATION:



SCHEMATIC:

