Assignment -1
Arduino Programming

Assignment Date	19 September 2022
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Maximum Marks	2 Marks

Question:

Write a program for smart home application using Arduino with any two sensors

Solution:

C++ CODE

```
int t1=4;

int e1=5;

int buzzer=13;

void setup()

{

  Serial.begin(9600);

  pinMode(t1,OUTPUT);

  pinMode(e1,INPUT);

  pinMode(buzzer,OUTPUT);

  pinMode(9, OUTPUT);

}

void loop()

{

  digitalWrite(t1,LOW);

  digitalWrite(t1,HIGH);

  delayMicroseconds(10);

  digitalWrite(t1,LOW);

  float dur1 =pulseIn(e1,HIGH);

  float dis1=(dur1*0.0343)/2;

  //Serial.print("Distance is :");

  //Serial.println(dis1);

  buzzer=map(dis1,330,10,0,255);
```

```
analogWrite(13,buzzer);


int a=analogRead(A0);

int bb=map(a,0,1023,0,255);

Serial.println(bb);

if(bb>70){

  Serial.println("Smoke Detected");

 }

}
```

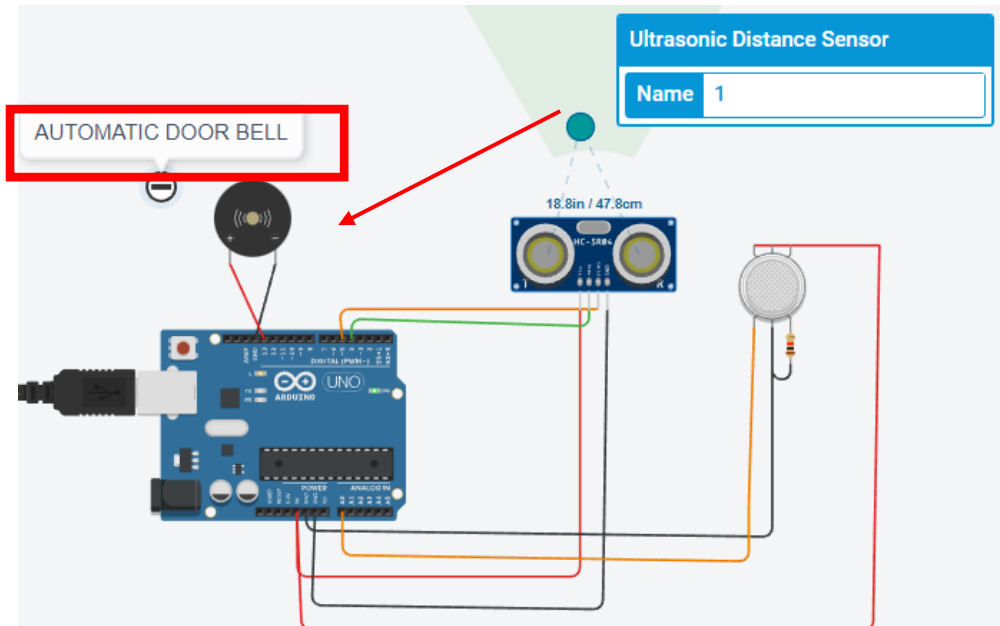**TINKERCAD DESIGN**

TINKERCAD LINK

OUTPUT

1.BUZZER RINGS WHEN ULTRASONIC SENSOR CAPTURES ANY OBJECT WIHTIN ITS RANGE

2.WHEN GAS LEVELS ARE HIGH ALERT MESSAGE IS CREATED


```
Serial Monitor

68
68
68
68
81
Smoke Detected
57
64
```