Assignment -1
Arduino Programming

Assignment Date	19 September 2022
Student Name	CAVIN.K.B
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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");

 }

 }
```
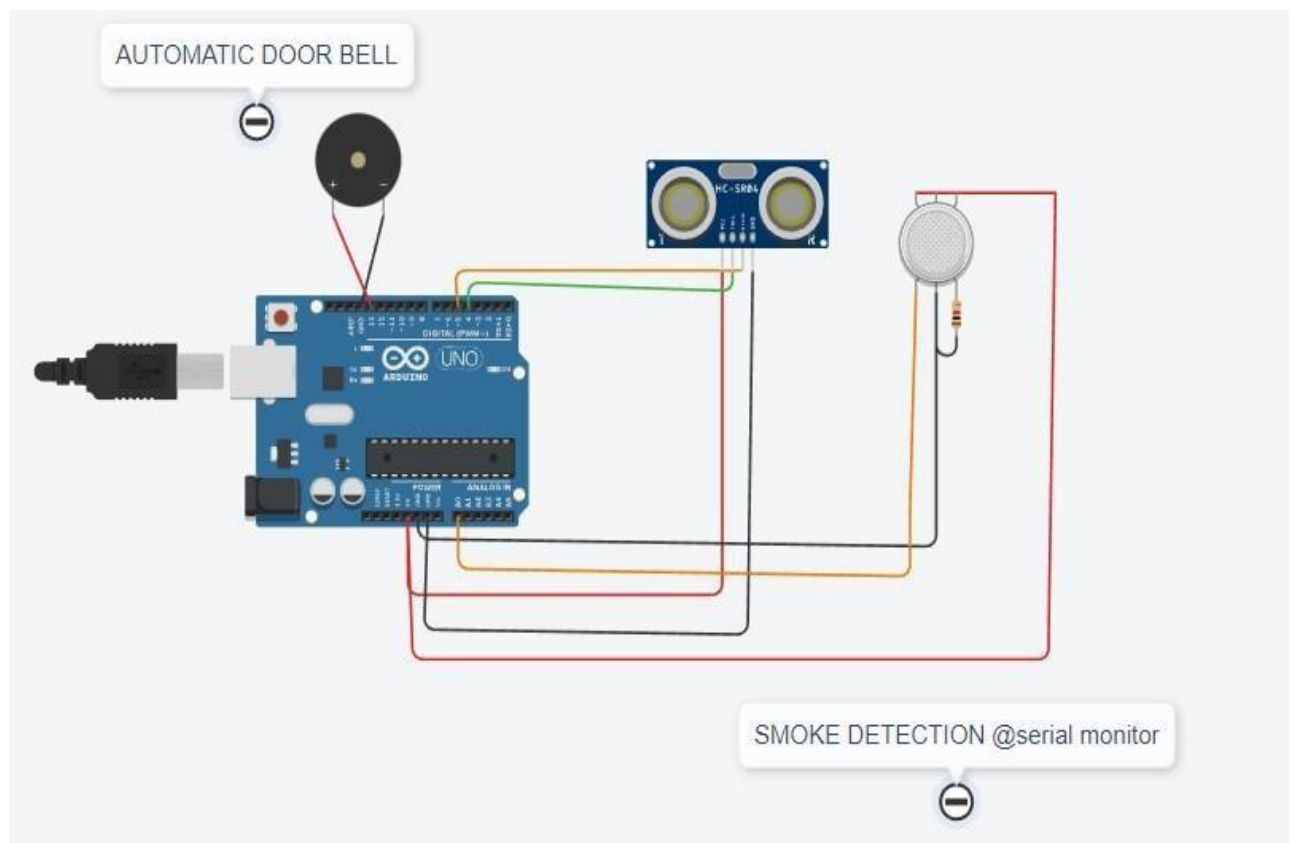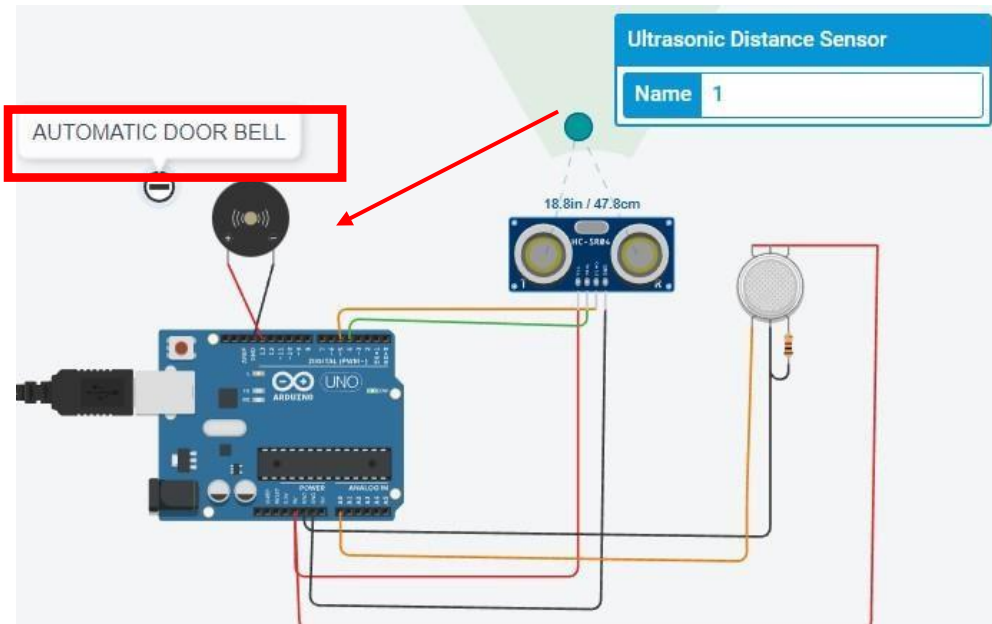
TINKERCAD DESIGN

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
```