

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:

CPP 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){

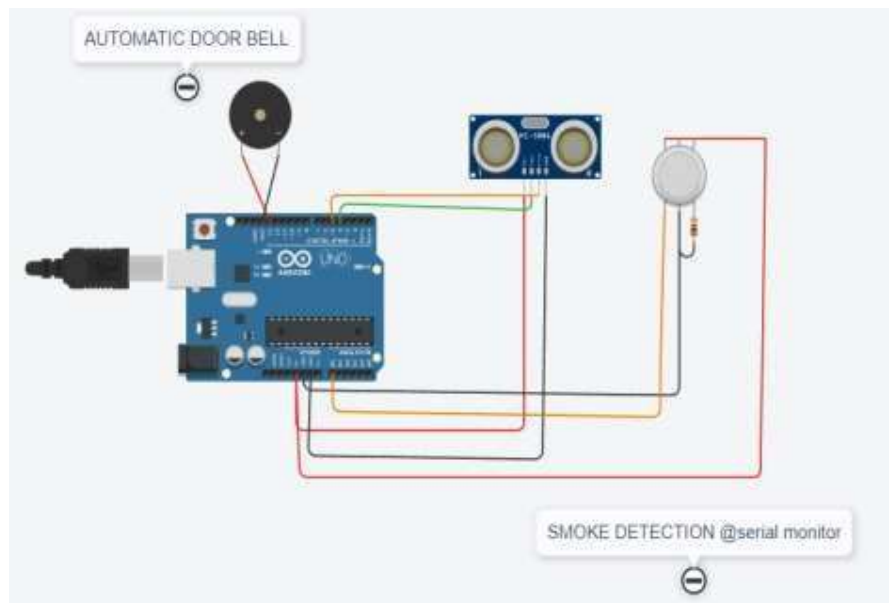
Serial.println("Smoke Detected");

}

}

```

TINKERCAD DESIGN:

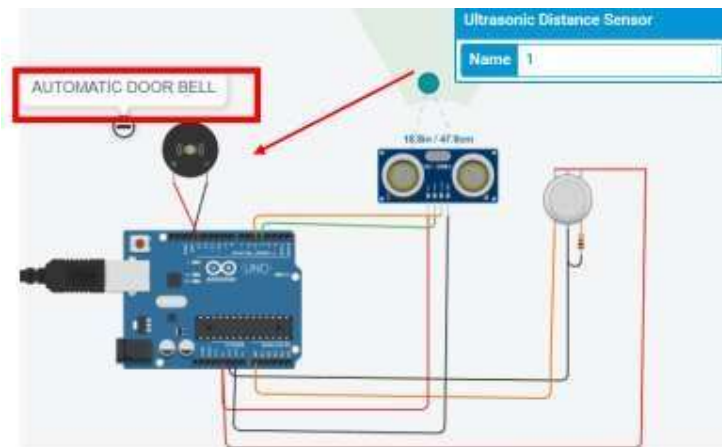


TINKERCARD LINK:

<https://www.tinkercad.com/things/2TPMhP2gZFx-assgn-/editel?sharecode=1t8VmTvDAudIsrerIEi23UgRFHiozrnGWwaX3T6TJK4>

OUTPUT:

1. Buzzer rings when Ultrasonic Sensor captures any object within its range



2. When gas levels are high Alert Message is Created.

