

Assignment -1
Arduino Programming

Assignment Date	19 September 2022
Student Name	NAREASH KUMAR K C
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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);
```

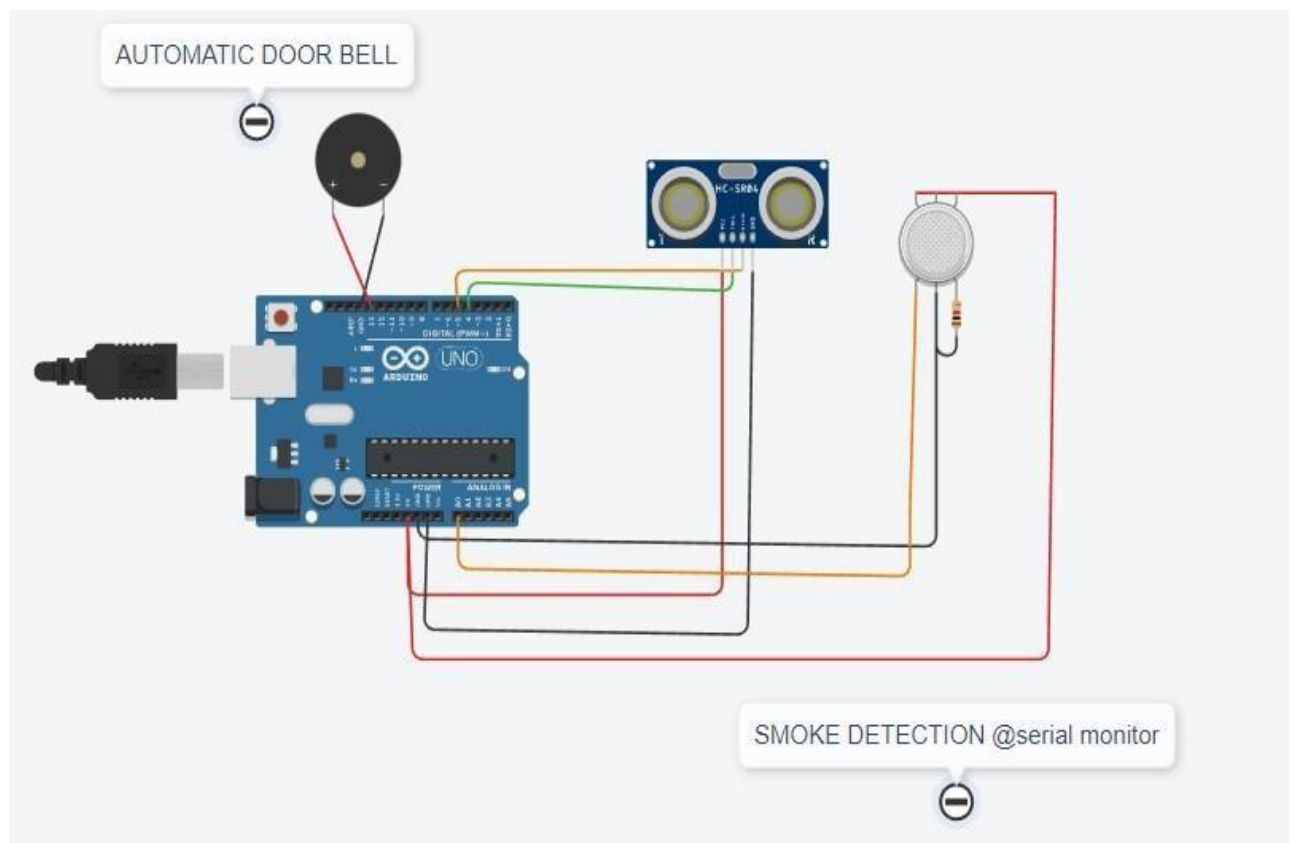
```
Serial.println(bb); if(bb>70){
```

```
Serial.println("Smoke Detected");
```

```
}
```

```
}
```

TINKERCAD DESIGN

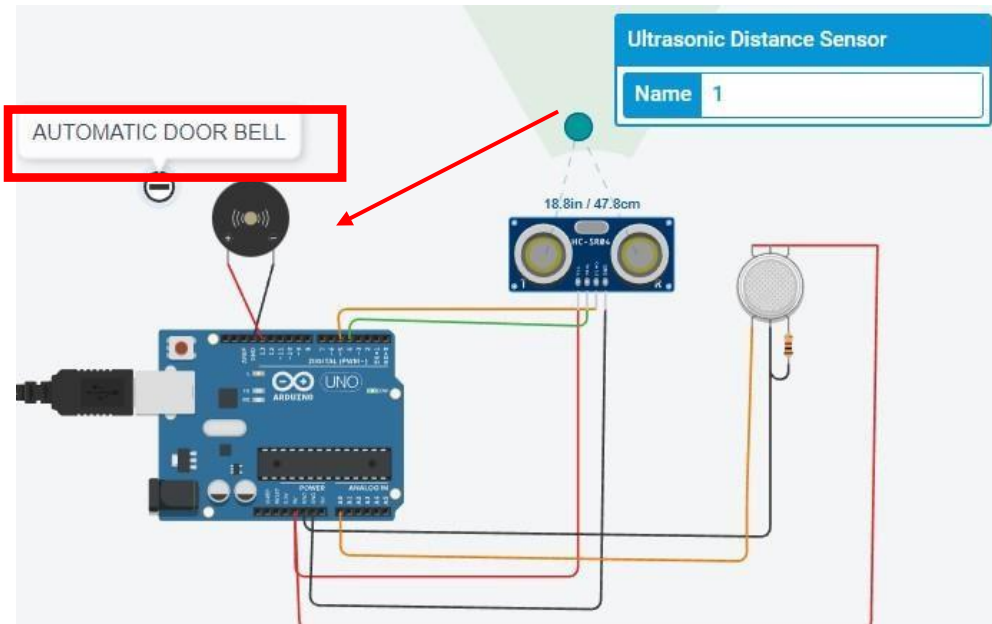


TINKERCAD LINK

<https://www.tinkercad.com/things/2TPMhP2gZFx-assgn-1-/editel?sharecode=1t8VmTvDAudIsrerIEi23UgRFHlozrnGWwaX3T6TJK4>

OUTPUT

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



2. WHEN GAS LEVELS ARE HIGH ALERT MESSAGE IS CREATED

