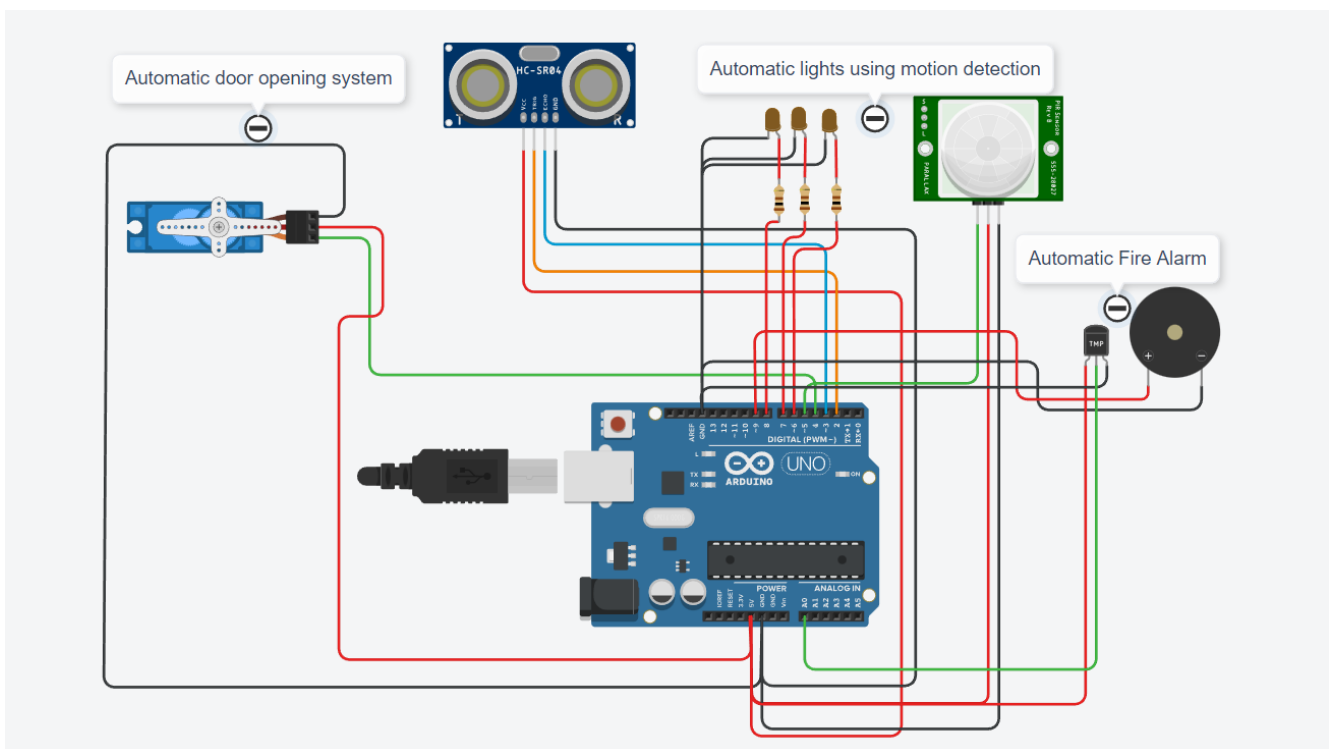


ASSIGNMENT – 1

SMART HOME AUTOMATION

Assignment Date	16 September 2022
Student Name	Alen Wenish J
Student Roll Number	212219040009
Maximum Marks	2 Marks

CIRCUIT DIAGRAM:



CODE:

```
#include <Servo.h>

Servo s;

int trig=2;

int ec=3;
```

```
int PIR=5;
int led1=6;
int led2=7;
int led3=8;
int buzz=9;
void setup()
{
  Serial.begin(9600);
  pinMode(trig,OUTPUT);
  pinMode(ec,INPUT);
  pinMode(PIR,INPUT);
  pinMode(led1,OUTPUT);
  pinMode(led2,OUTPUT);
  pinMode(led3,OUTPUT);
  pinMode(buzz,OUTPUT);
  s.attach(4);
  s.write(0);
  digitalWrite(led1,LOW);
  digitalWrite(led2,LOW);
  digitalWrite(led3,LOW);
}
void autodoor()
{
  digitalWrite(trig,LOW);
  digitalWrite(trig,HIGH);
```

```
delayMicroseconds(10);
digitalWrite(trig,LOW);
float duration = pulseIn(ec,HIGH);
float dist = (duration*0.0343)/2;
//Serial.println(dist);
if(dist<100)
{
    open();
}
}
void open()
{
    for (int i=0;i<=90;i++)
    {
        s.write(i);
        delay(100);
    }

    delay(5000);
    for (int j=90;j>=0;j--)
    {
        s.write(j);
        delay(100);
    }
}
```

```
void autolight()
{
  int p = digitalRead(5);
  if(p)
  {
    digitalWrite(led1,HIGH);
    digitalWrite(led2,HIGH);
    digitalWrite(led3,HIGH);
    delay(5000);
    digitalWrite(led1,LOW);
    digitalWrite(led2,LOW);
    digitalWrite(led3,LOW);
  }
}

void firealarm()
{
  double a = analogRead(A0);

  double t = (((a/1024)*5)-0.5)*100;
  Serial.println(t);
  if(t>60)
  {
    tone(buzz,20000);
    delay(10000);
    noTone(9);
  }
}
```

```

    }
}

void loop()
{
    autodoor();
    delay(1000);
    autolight();
    delay(1000);
    firealarm();
    delay(1000);
}

```

