PROFESSIONAL READINESS FOR INNOVATION, EMPLOYABILITY AND ENTREPRENEURHIP

ASSIGNMENT 1

SMART HOME

SUBMITTED BY

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SMART HOME

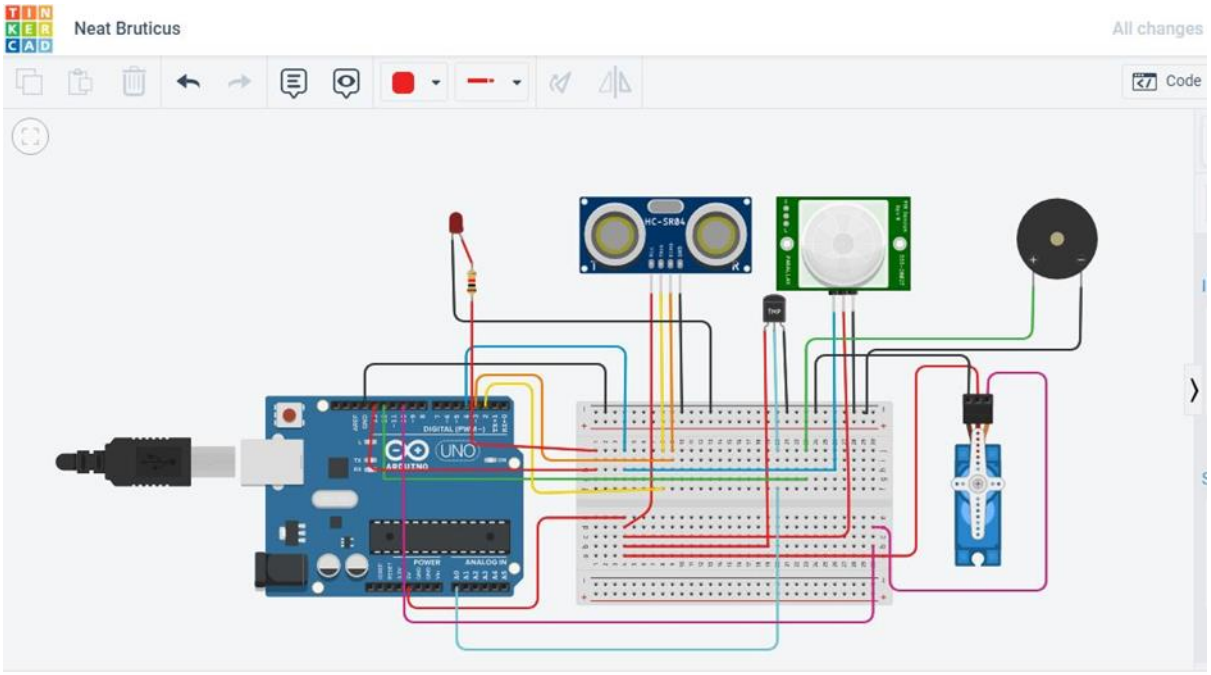

FIG : CIRCUIT DIAGRAM FOR SMART HOME

CODING:

```
#include <Servo.h>

int location = 0;

int i = 0;

int j = 0;

Servo s;

void setup()

{

 Serial.begin(9600);

 pinMode(4,INPUT);//PIR sensor

 pinMode(13,OUTPUT);//Red LED inside home

 pinMode(12,OUTPUT);//Buzzer for temp

 s.attach(10, 500, 2500);//micro servo

 pinMode(3,INPUT); //ECHO in ultrasonic

 pinMode(2,OUTPUT); //TRIGGER in ultrasonic

}
```

```
void loop()
{
 int n=digitalRead(4);
 Serial.println(n);
 if(n)
{
 Serial.println("MOTION DETECTED!!!");
 location = 0;
 for (location = 1; location <=180; location+=60)
{
 s.write(location);
 delay(100);
 double a=analogRead(A0);
 double t=(((a/1024)*5)-0.5)*100;
 Serial.print("TEMP VALUE: ");
 Serial.println(t);
 if (t>100)
{
 for(int j=200;j<220;j++)
 {
 tone(12,j);
 }
 delay(1000);
 noTone(12);
 }
 digitalWrite(2,LOW);
 digitalWrite(2,HIGH);
 delay(1000);
 digitalWrite(2,LOW);
 float dur=pulseIn(3,HIGH);
```

```
 float dis=(dur*0.0343)/2;
 digitalWrite(13,LOW);
 if (dis<20)
{
Serial.print("Distance: ");
 Serial.print(dis);
 Serial.println(" cm");
 digitalWrite(13,HIGH);
 }
 }
 delay(1000);
}
}
```