

ASSIGNMENT – I

DOMAIN:IoT

TITLE:SMART HOME

Team Members:

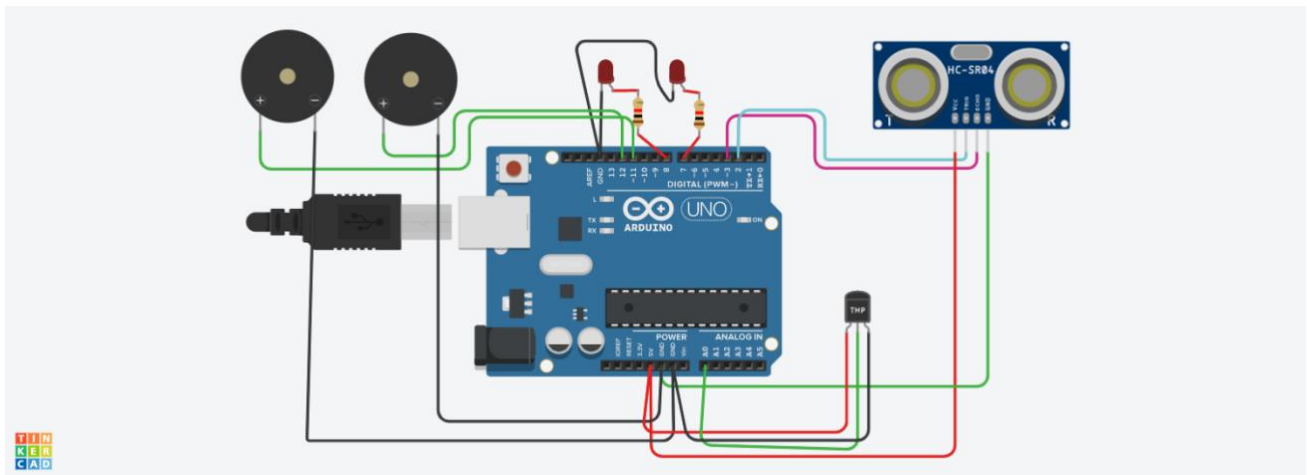
1)Jeeva Getzie Cynthia.A

2)Afrin Jumana.M

3)Srinithi.A

4)Priya.M

SMART Home Circuit Connection:



Components Used:

- i) 2 Piezo Buzzers
- ii) Temperature Sensor
- iii) Ultrasonic Sensor
- iv) LED -2
- v) Resistor-2

Code :

```
int t=2;
int e=3;

void setup()
{
  Serial.begin(9600);
  pinMode(t,OUTPUT);
  pinMode(e,INPUT);
  pinMode(12,OUTPUT);
}

void loop()
{
  //ultrasonic sensor
  digitalWrite(t,LOW);
```

```

digitalWrite(t,HIGH);
delayMicroseconds(10);
digitalWrite(t,LOW);
float dur=pulseIn(e,HIGH);
float dis=(dur*0.0343)/2;
Serial.print("Distance is: ");
Serial.println(dis);

//LED ON
if(dis>=100)//(in terms of centimeter)
{
    digitalWrite(8,HIGH);
    digitalWrite(7,HIGH);
}

//Buzzer For ultrasonic Sensor
if(dis>=100)
{
    for(int i=0; i<=30000; i=i+10)
    {
        tone(12,i);
        delay(1000);
        noTone(12);
        delay(1000);
    }
}

//Temperate Sensor
double a= analogRead(A0);
double t=((a/1024)*5)-0.5)*100;
Serial.print("Temp Value: ");
Serial.println(t);
delay(1000);

//LED ON
if(t>=100)//(in terms of celsius)
{
    digitalWrite(8,HIGH);

```

```

    digitalWrite(7,HIGH);
}
/Buzzer for Temperature Sensor
if(t>=100)
{
for(int i=0; i<=30000; i=i+10)
{
tone(12,i);
delay(1000);
noTone(12);
delay(1000);
}
}
//LED OFF
if(t<100)
{
    digitalWrite(8,LOW);
    digitalWrite(7,LOW);
}
}

```

TINKERCAD LINK:

<https://www.tinkercad.com/things/beGCQEVAPBM-smart-home/editel?sharecode=6BPXGhD-dU8fkeMH9U6ydR68GCAOp-P3XYC1rLQMqbw>