ASSIGNMENT – I

DOMAIN: IOT
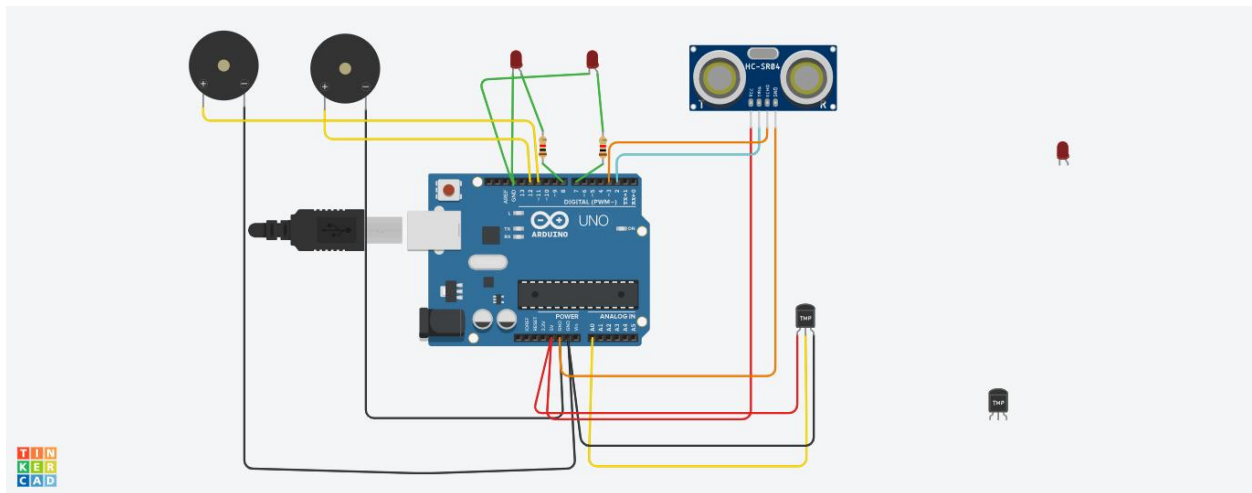
TITLE: SMART HOME

Team Members-2: NIVAS S

Register Number: 611219106053

Schematic (Circuit Diagram)

SMART Home Circuit Connection:

Components Used:

i) 2 Piezo Buzzer

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);
```

```arduino
//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/04FPijtpzQx-sizzling-wluff/editel?sharecode=crzWiaOKQ60gifycKs5plLr2No2f9OiiS32dXeYGf74