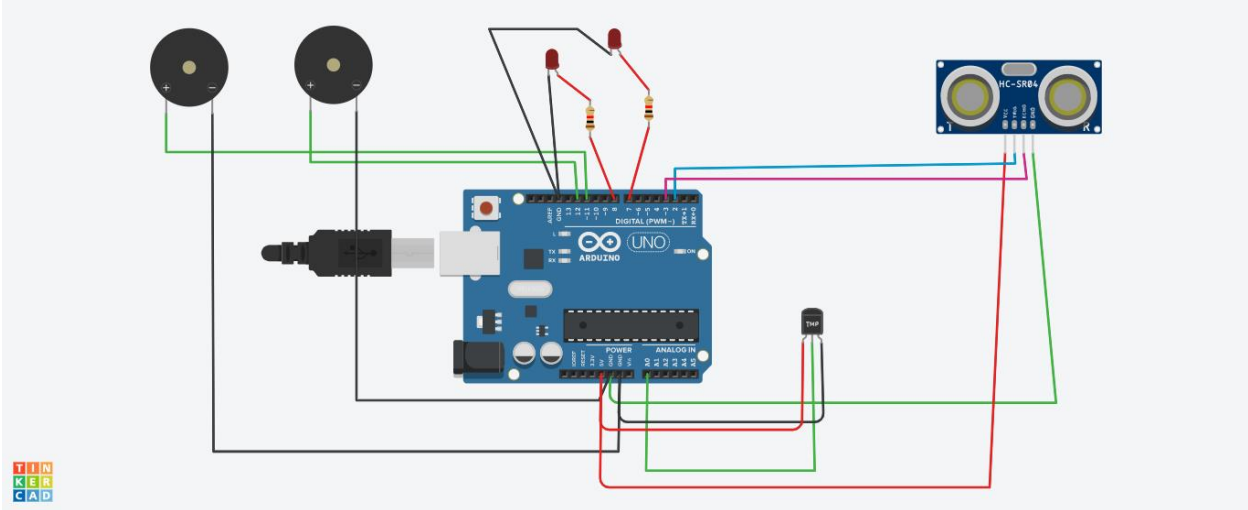


ASSIGNMENT – 1
DOMAIN : IOT
TITLE : SMART HOME

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/iMzdJ6COtZl-fantastic-bojo/editel?sharecode=hNsUTgvqIQGYR918flz7i_R7OH4a6dFocLoxLtpxmkg