ASSIGNMENT – I

DOMAIN: IOT

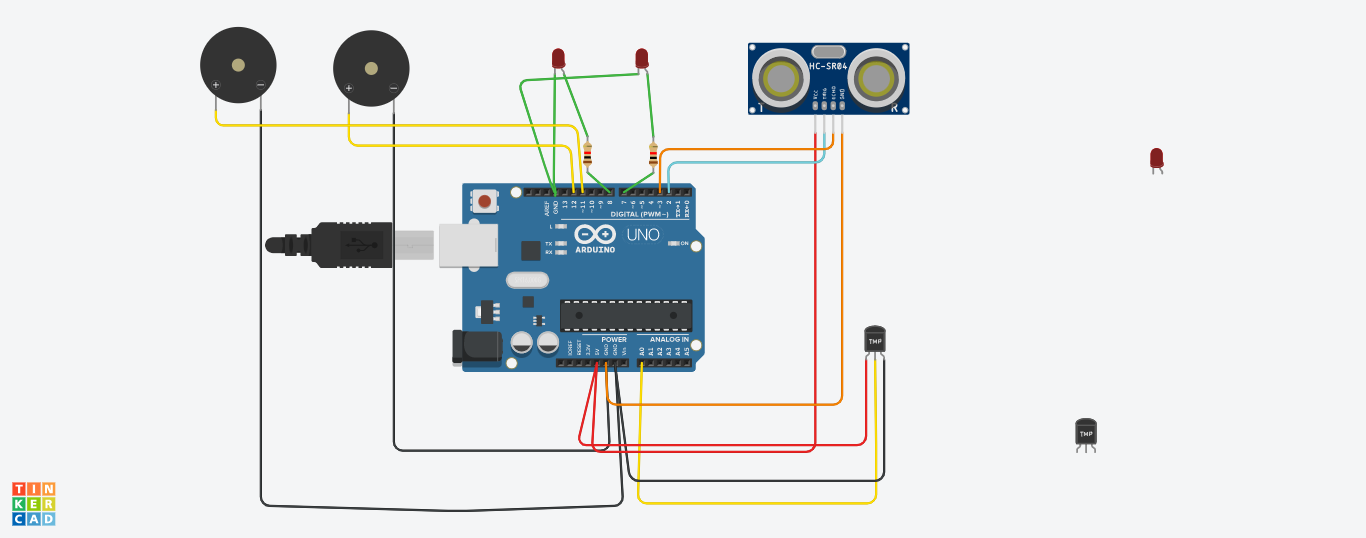
TITLE: SMART HOME

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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);

//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