

ASSIGNMENT -1

PYTHON PROGRAM

Assignment Date	30 October 2022
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Maximum Marks	2 Marks

Question-1:

BUILD A SMART HOME IN THINKER CAD WITH 2 SENSORS, AN LED, BUZZER AND SUBMIT IT.

SOLUTION:

```
if(dis>=100) { 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) {
digitalWrite(8,HIGH);
digitalWrite(7,HIGH);
}
```

```

/*buzzer for

ultrasonic sensor*/
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) {
digitalWrite(8,HIGH);
digitalWrite(7,HIGH);
}

/*buzzer for temperature

sensor*/

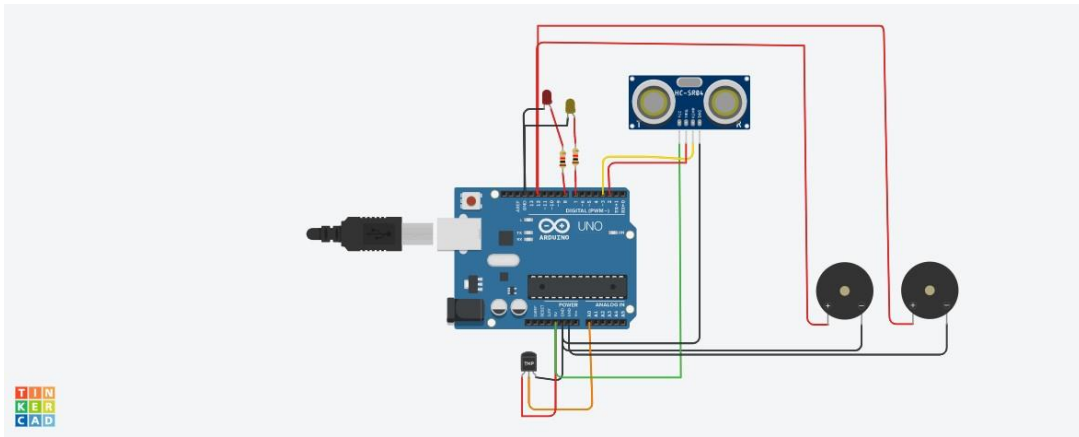
if(t>=100) {
for(int i=0; i<=30000; i=i+10) {
tone(12,i);
delay(1000);
noTone(12);
delay(1000);
}
}

/*led

off*/

if(t<100) {
digitalWrite(8,LOW);
digitalWrite(7,LOW);
}
}

```



The following image is the circuit connected to run the project.