Assignment -1

Smart Home using Tinkercad

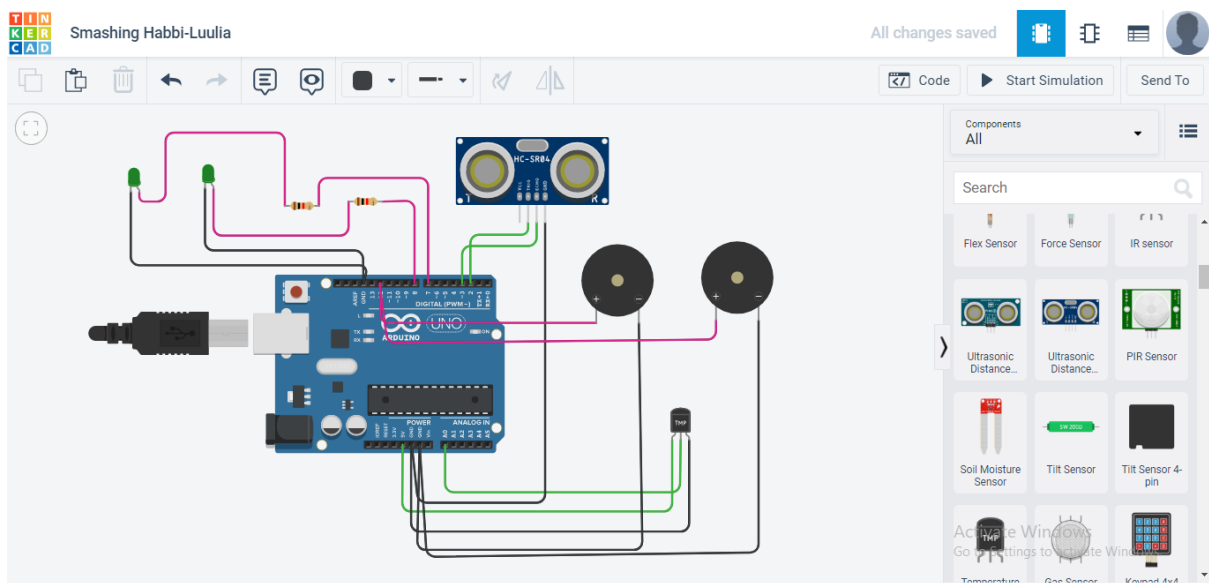| Assignment Date	09 November 2022
Student Name	Mr.Dhinesh P
Student Roll Number	717819L210
Maximum Marks	2 Marks

Question-1:

Build a smart home in Tinkercad with 2 sensors, an Led, buzzer and submit it.

Solution:

Circuit Diagram:

Source Code:

```
int examp=2;
int t=3;
void setup()
{
Serial.begin(9600);
pinMode(examp,OUTPUT);
pinMode(t,INPUT);
pinMode(12,OUTPUT);
}
void loop()
{
float duration=pulseIn(t,HIGH);
float distance=(duration*0.0343)/2;
Serial.print("Distance is: ");
Serial.println(distance);
//LED ON
```

```
if(distance>=100)

{
digitalWrite(8,HIGH);
digitalWrite(7,HIGH);
}
if(distance>=100)
{
for(int i=0; i<=30000; i=i+10)
{
tone(12,i);
delay(1000);
noTone(12);
delay(1000);
}
}
double d=analogRead(A0);
examp=(((d/1024)*5)-0.5)*100;
Serial.print("Examp Value: ");
Serial.println(examp);
delay(1000);
if(examp>=100)
{
digitalWrite(8,HIGH);
digitalWrite(7,HIGH);
}
if(examp>=100)
{
for(int i=0; i<=30000; i=i+10)
{
tone(12,i);
delay(1000);
noTone(12);
delay(1000);
}
}
if(examp<100)
{

digitalWrite(8,LOW);

digitalWrite(7,LOW);

}

}
```

Simulation Output: