

Assignment -1

Smart Home using Tinkercad

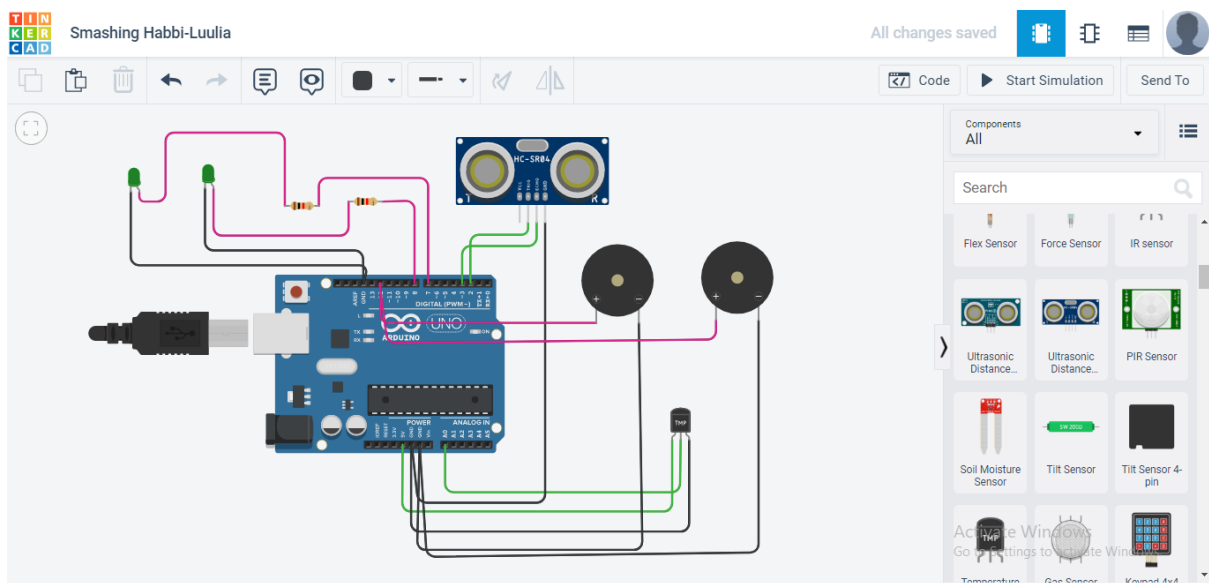
Assignment Date	09 November 2022
Student Name	Mr.Karthikeyan S
Student Roll Number	717819L219
Maximum Marks	2 Marks

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:

