ASSIGNMENT - 1

Project Name   :   SmartFarmer - IoT Enabled Smart Farming Application
Batch Number   :   B4-4M6E
Assignment Topic   :   Build a smart home using sensor LED and Buzzer
Name   :   Boopathi E

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)
 {
   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)
  {
    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);
  }
  }
```
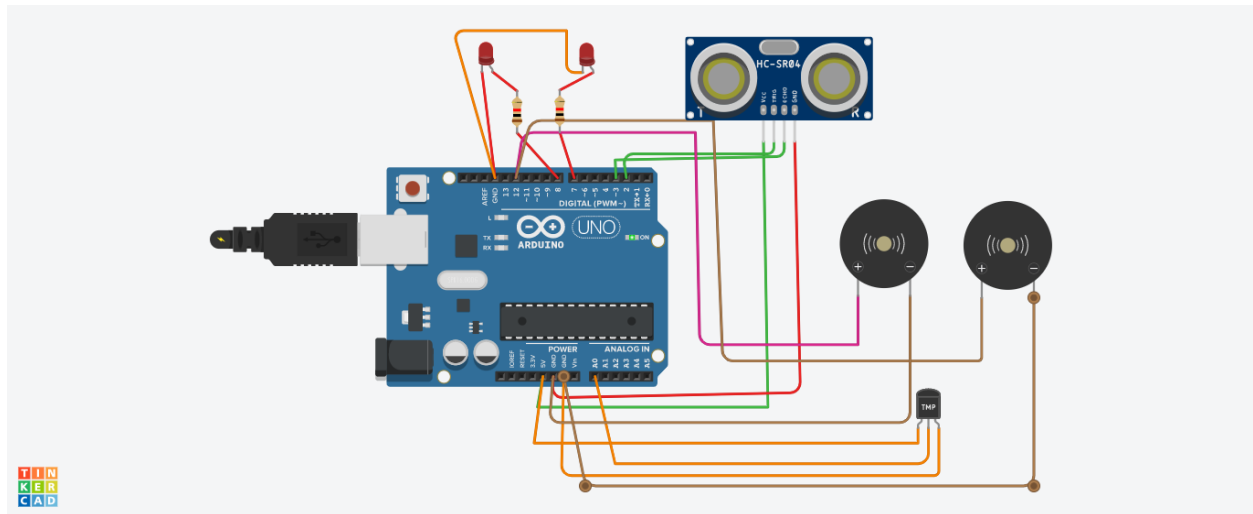
```
   //LED OFF
 if(t<100)
 {
   digitalWrite(8,LOW);
   digitalWrite(7,LOW);
 }
}
```

BLOCK DIAGRAM :

OUTPUT:

Distance is: 112.88