ASSIGNMENT 1

SMART HOME

Submitted by,

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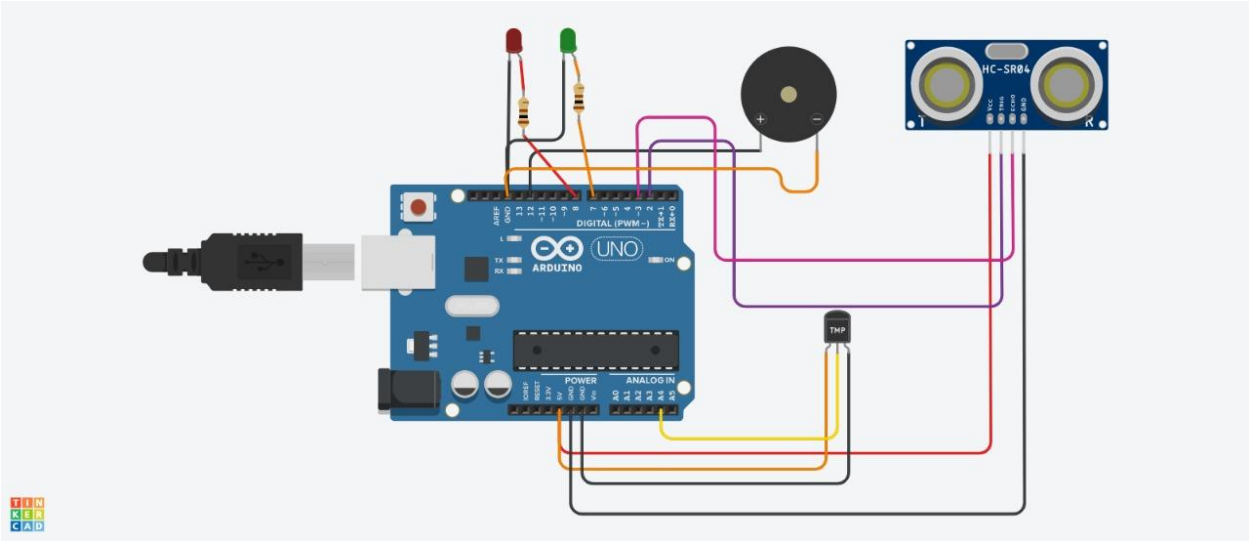
Circuit Diagram:



Code:

```
// C++ code
//
int a=2;int b=3;
void setup()
{
  Serial.begin(9600);
  pinMode(a,OUTPUT);
  pinMode(b,INPUT);
  pinMode(12,OUTPUT);
}
void loop()
{
  //ultrasonic sensor
  digitalWrite(a,LOW);
  digitalWrite(a,HIGH);
  delayMicroseconds(10);
  digitalWrite(a,LOW);
```

```
float dur=pulseIn(b,HIGH);
float dis=(dur*0.0343)/2;
Serial.print("Distance is: ");
Serial.println(dis);
//LED ON
if(dis>=100)
{
  digitalWrite(8,HIGH);
}
else
{
  digitalWrite(8,LOW);
}
//Buzzer For ultrasonic Sensor
if(dis>=100)
{
  digitalWrite(12,HIGH);
  delay(500);
```

```
}
else
{
  digitalWrite(12,LOW);
  delay(500);
}
//Temperate Sensor
double a= analogRead(A4);
double t=(((a/1024)*5)-0.5)*100;
Serial.print("Temp Value: ");
Serial.println(a);
//LED ON
if(t>=100)
{
  digitalWrite(7,HIGH);
}
else
{
```

```
    digitalWrite(7,LOW);
  }
  //Buzzer for Temperature Sensor
  if(t>=100)
  {
    digitalWrite(12,HIGH);
    delay(500);
  }
  else{
    digitalWrite(12,LOW);
    delay(500);
  }
}
```

Tinkercad automation link-

https://www.tinkercad.com/things/0XfMakkWlV0-grand-vihelmo/editel?sharecode=dtM-S4q3uRBNBjjoZm9yGVUBaYYlk_sT6PYdpXxrIeE