

## ASSIGNMENT 2 -

Build a python code, Assume you get temperature and humidity values (generated with random function to a variable) and write a condition to continuously detect alarm in case of high temperature.

Code :

```
int t=2;

int e=3;

void setup()

{

  Serial.begin(9600);

  pinMode(t,OUTPUT);

  pinMode(e,INPUT);

  pinMode(12,OUTPUT);

}

void loop()

{

  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);

  if(dis>=100)

  {

    digitalWrite(8,HIGH);

    digitalWrite(7,HIGH);

  }

}
```

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

double a= analogRead(A0);
double t=((a/1024)*5)-0.5)*100;
Serial.print("Temp Value: ");
Serial.println(t);
delay(1000);
if(t>=100)
{
digitalWrite(8,HIGH);
digitalWrite(7,HIGH);
}

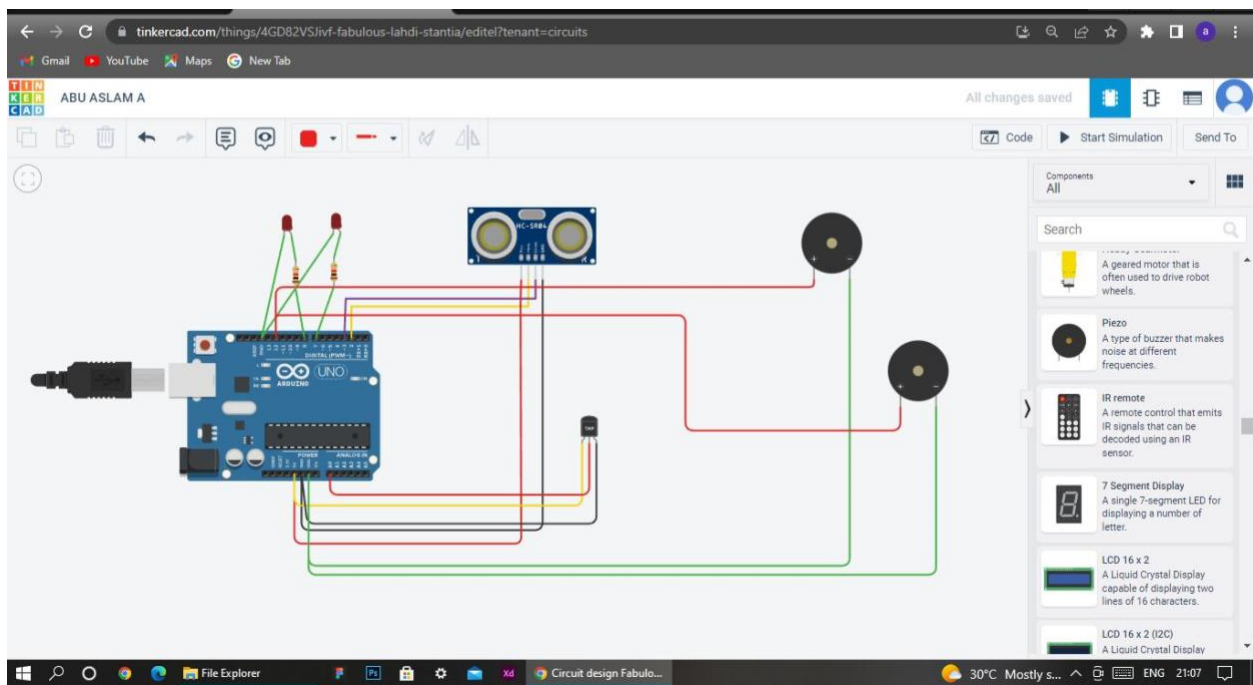
if(t>=100)
{
for(int i=0; i<=30000; i=i+10)
{
tone(12,i);
delay(1000);
noTone(12);
delay(1000);
}
```

```

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

```

**IMAGE :**



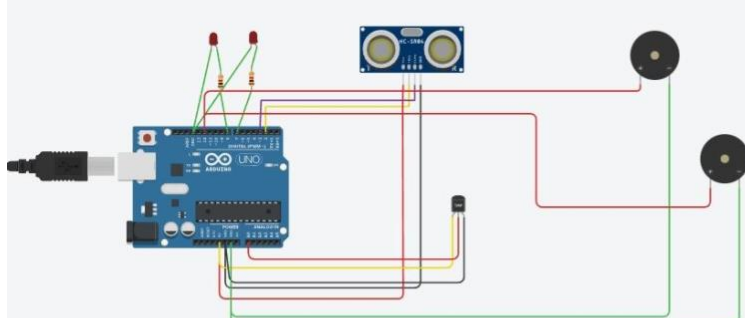
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Code Start Simulation Send To



```
1 int t=2;
2 int e=3;
3 void setup()
4 {
5   Serial.begin(9600);
6   pinMode(t,OUTPUT);
7   pinMode(e,INPUT);
8   pinMode(12,OUTPUT);
9 }
10 void loop()
11 {
12   digitalWrite(t,LOW);
13   digitalWrite(t,HIGH);
14   delayMicroseconds(10);
15   digitalWrite(t,LOW);
16   float dur=pulseIn(e,HIGH);
17   float dis=(dur*0.0343)/2;
18   Serial.print("Distance is: ");
19   Serial.println(dis);
20
21   if(dis>=100)
22   {
23     digitalWrite(8,HIGH);
24     digitalWrite(7,HIGH);
25   }
26
27   if(dis>=100)
28   {
29     for(int i=0; i<=30000; i=i+10)
30     {
31       tone(12,i);
32       delay(1000);
33       noTone(12);
34     }
35   }
```

Serial Monitor

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