

Assignment -2
Python Programming

Assignment Date	28 September 2022
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Maximum Marks	2 Marks

Question-1:

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.

Solution:

```
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)
```

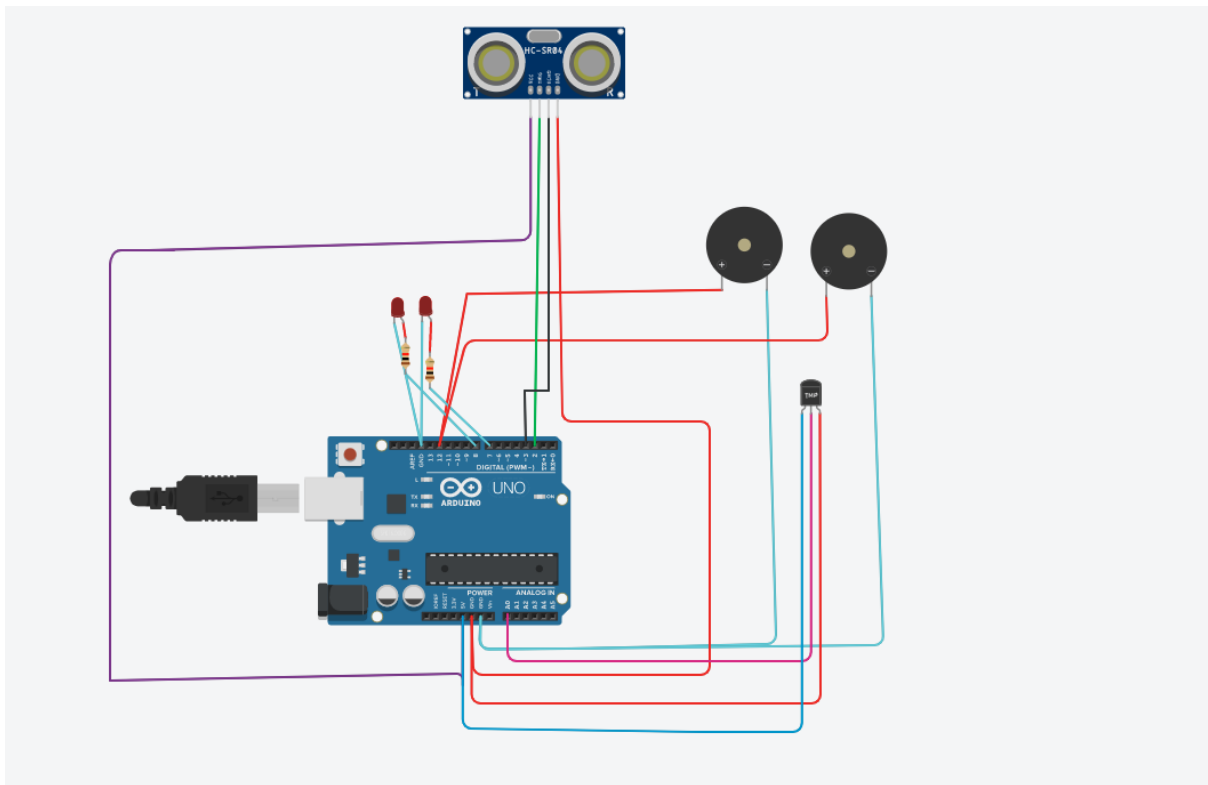
```
{
digitalWrite(8,HIGH);
digitalWrite(7,HIGH);
}
if(dis>100)
{
for(int i=0; i<=30000; i=i+10)
{
tone(12,i);
delay(1000);
noTone(12);
delay(1000);
}
}
double a= analogRead(A0);
double t=((a/1024)*5)-0.5)*100;
Serial.print("Temp Value: ");
Serial.println(t);
delay(1000);
if(t>=100)
{
digitalWrite(8,HIGH);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

```

Picture:



Output:

```

Distance is: 0.00
Temp Value: 369.43
Distance is: 112.88
Distance is: 112.88
Distance is: 112.88
Distance is: 112.88
Distance is: 112.88
Distance is: 112.88

```