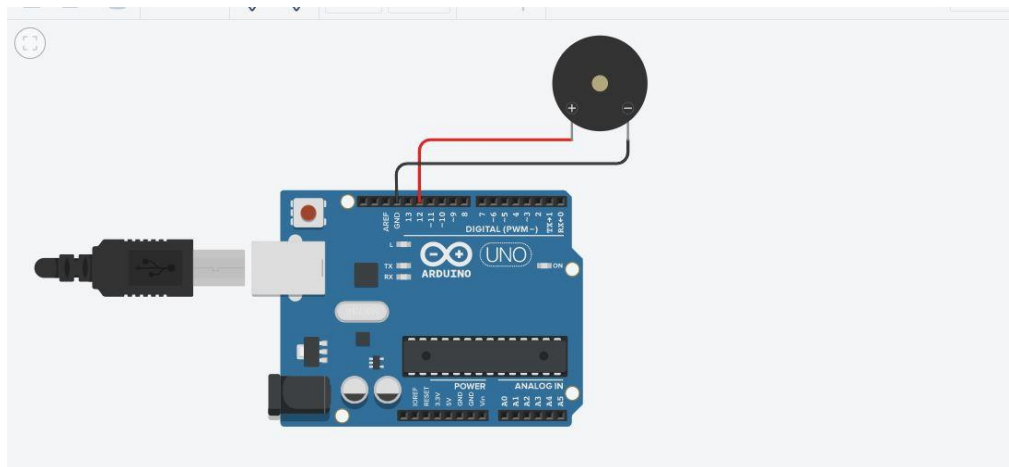
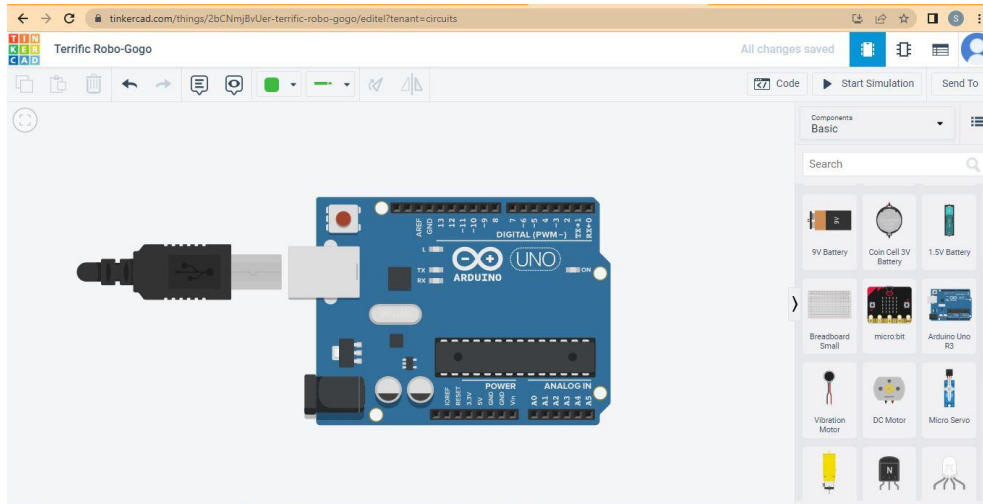
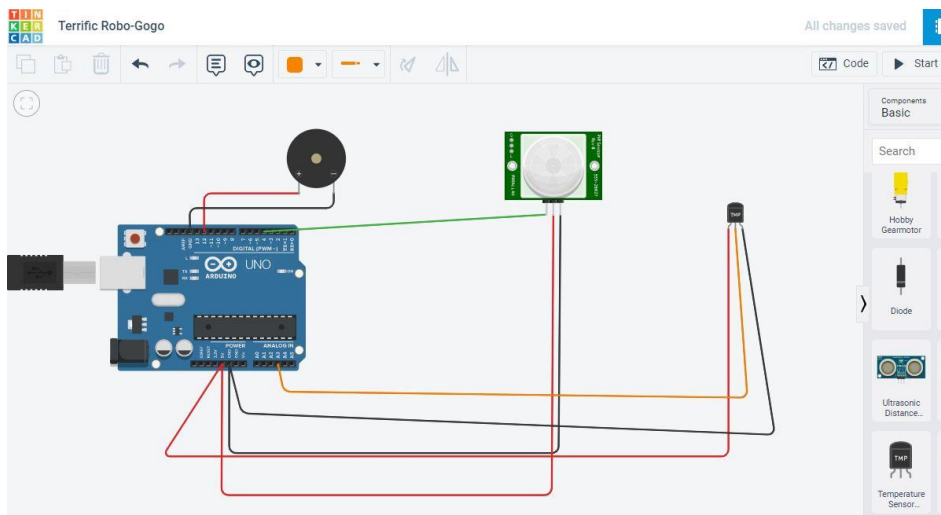
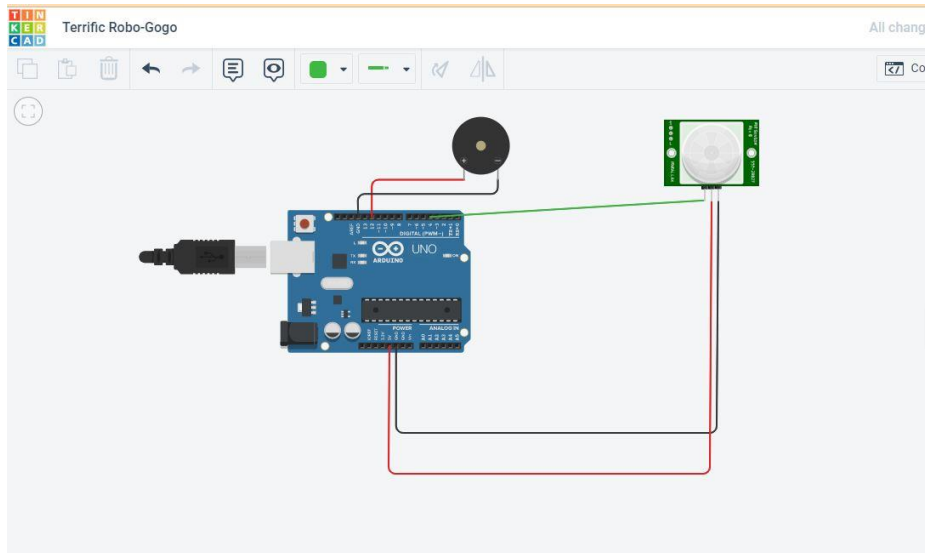


Assignment -1

1. Alarm should sound in one manner if temp is above 60c.
 2. Alarm should sound with another frequency if motion is detected in PIR sensor.
- Included following sensor: Arduino, PIR sensor, TMP sensor, piezo alarm.





CODE:

```
float temp;
```

```
void setup()
```

```
{
```

```
pinMode(4,INPUT);
```

```
pinMode(12,OUTPUT);
```

```
Serial.begin(9600);
```

```
}
```

```
void loop()
```

```
{
```

```
if(digitalRead(4)==HIGH)
```

```
{
```

```
tone(12,523,1000);
```

```
    } else {
```

```
        noTone(12);
```

```
    }
```

```
temp=analogRead(A3);
```

```
Serial.println("temp:");
```

```
Serial.println(temp);
```

```
temp=temp*0.48828125;
```

```
Serial.println(temp);
```

```
if(temp>=110.84){
```

```
tone(12,100,2000);
```

```
Serial.println("Above 60 c temperture");
```

```
}
```

```
else{
```

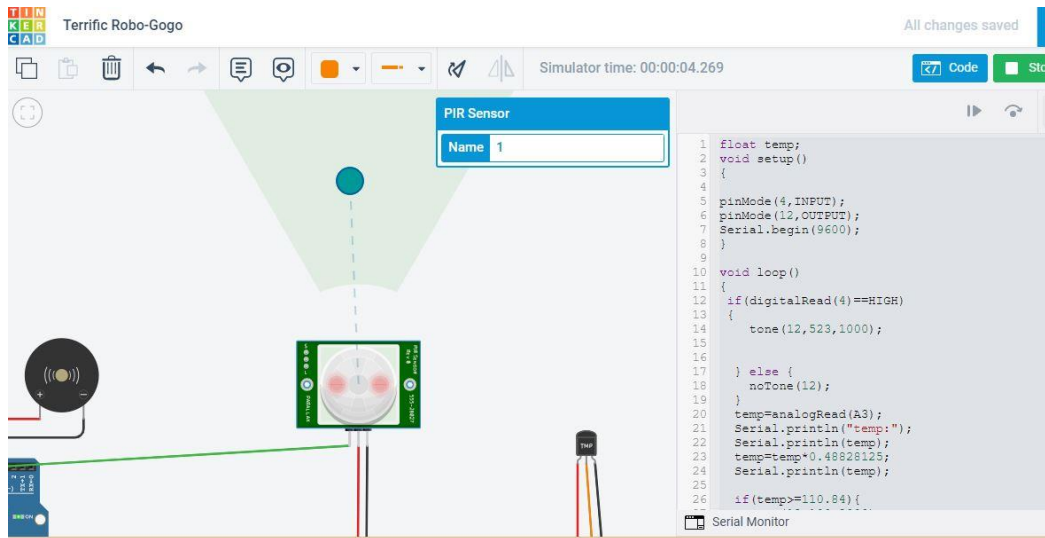
```
noTone(12);
```

```
}
```

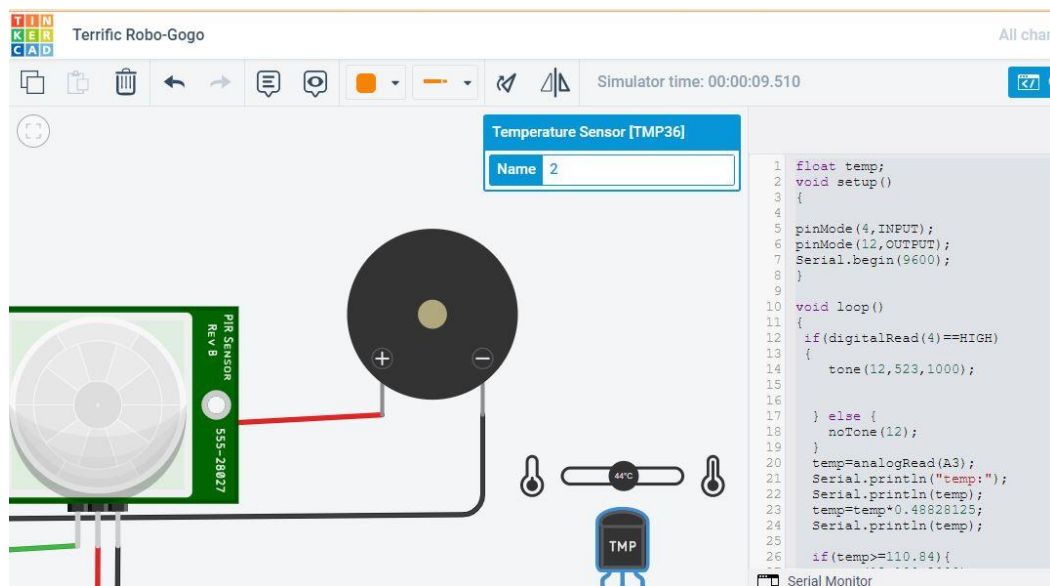
```
}
```

Output:

PIR Sensor alarm



Low Temperature:



High Temperature:

The screenshot displays an Arduino IDE simulation environment. On the left, a breadboard circuit is shown with a green PIR sensor (labeled 'PIR Sensor Rev B 555-28027') connected to a black circular buzzer. A red wire connects the sensor to the buzzer's positive terminal. A black wire connects the buzzer's negative terminal to a blue temperature sensor component labeled 'TMP'. A slider control is positioned between the buzzer and the TMP sensor, currently set to '82°C'. Above the buzzer, a blue box labeled 'Temperature Sensor [TMP36]' has a 'Name' field containing the number '2'. The top toolbar includes icons for file operations, simulation controls, and a 'Code' button. The status bar at the top right shows 'Simulator time: 00:00:03.886' and '1 (Arduino Uno)'. The main code editor on the right contains the following C++ code:

```
1 float temp;
2 void setup()
3 {
4
5 pinMode(4, INPUT);
6 pinMode(12, OUTPUT);
7 Serial.begin(9600);
8 }
9
10 void loop()
11 {
12   if(digitalRead(4)==HIGH)
13   {
14     tone(12, 523, 1000);
15
16
17   } else {
18     noTone(12);
19   }
20   temp=analogRead(A3);
21   Serial.println("temp:");
22   Serial.println(temp);
23   temp=temp*0.48828125;
24   Serial.println(temp);
25
26   if(temp>=110.84){
```

Below the code editor, a 'Serial Monitor' tab is visible.