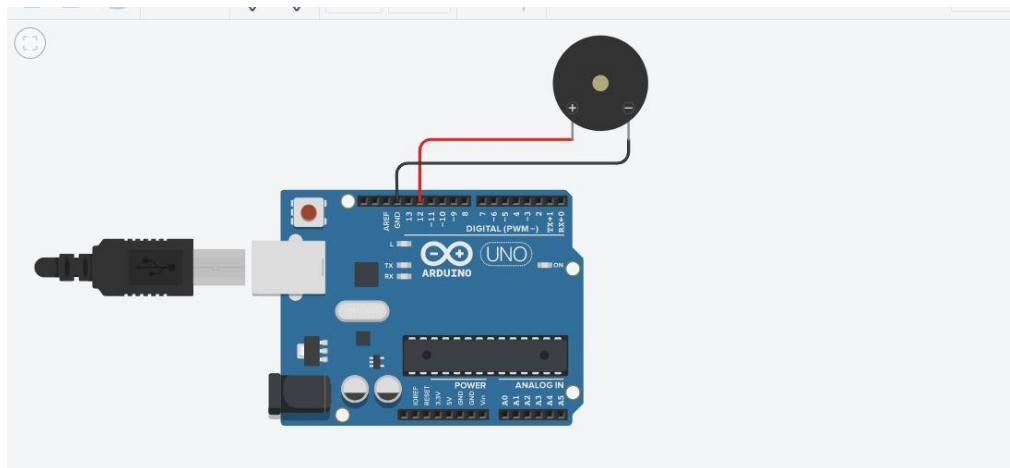
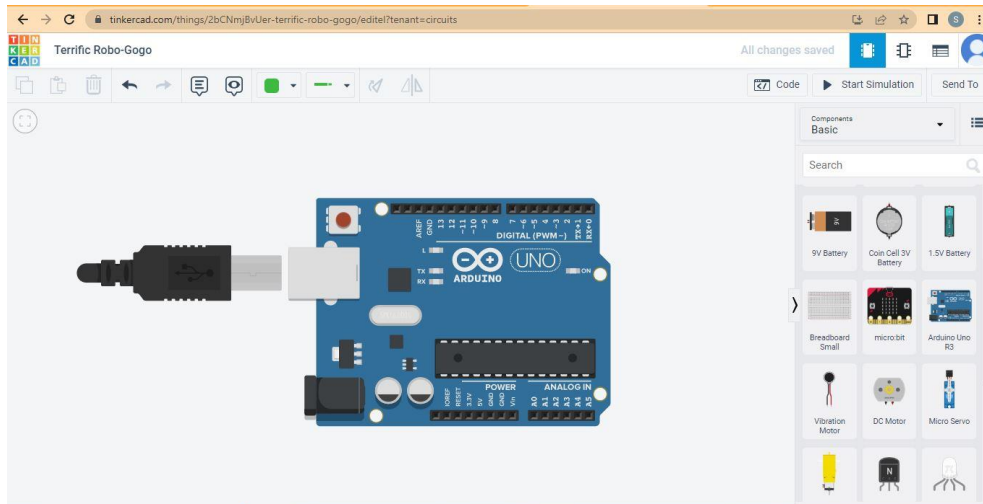


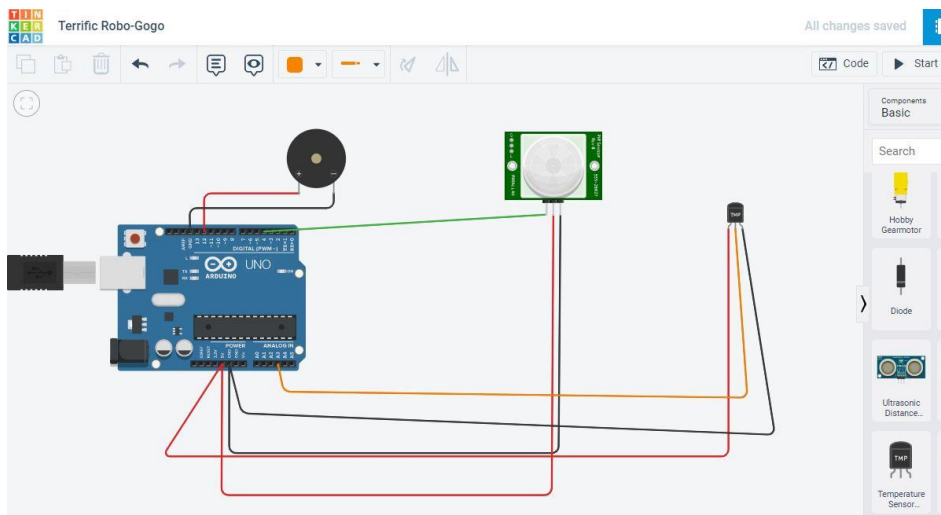
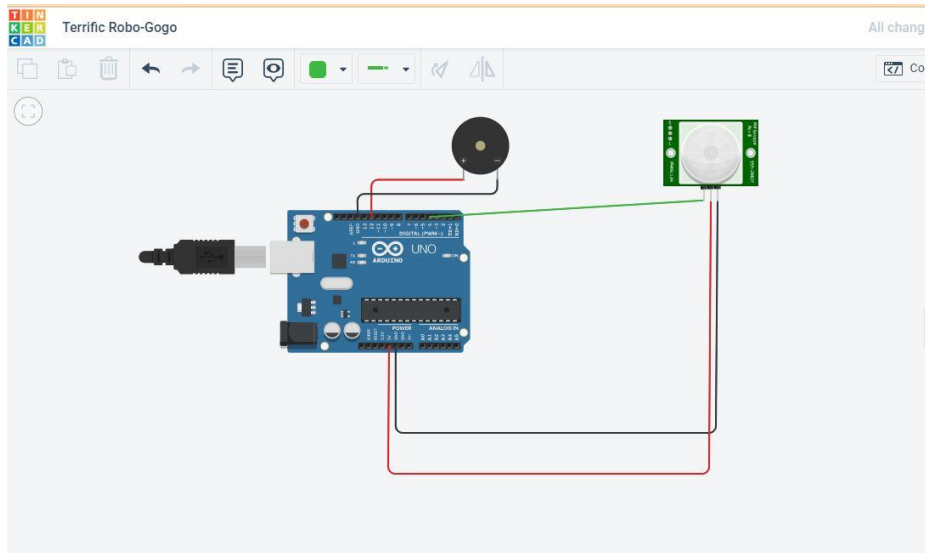
Assignment -1

QUESTION:

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{
```

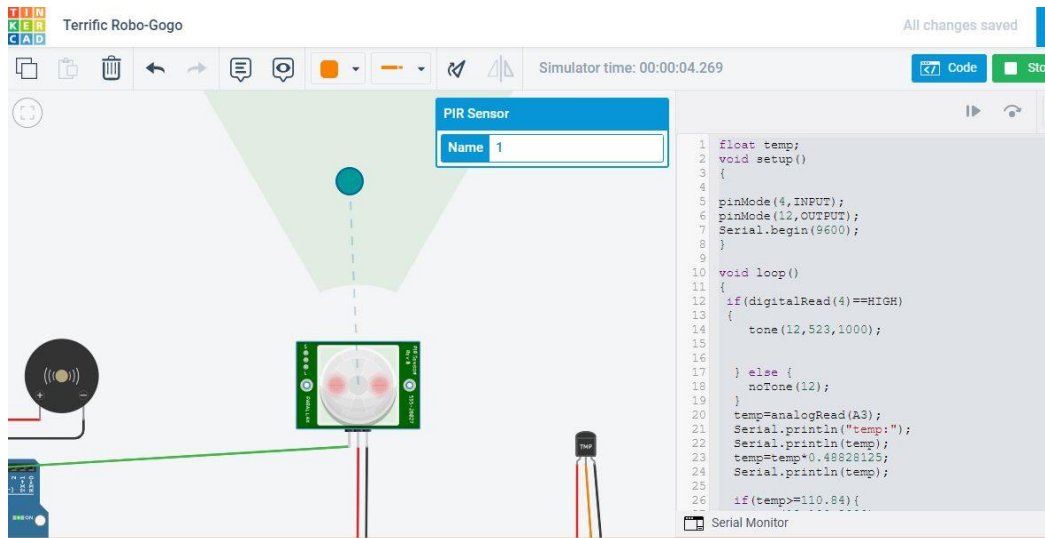
```
    noTone(12);
```

```
  }
```

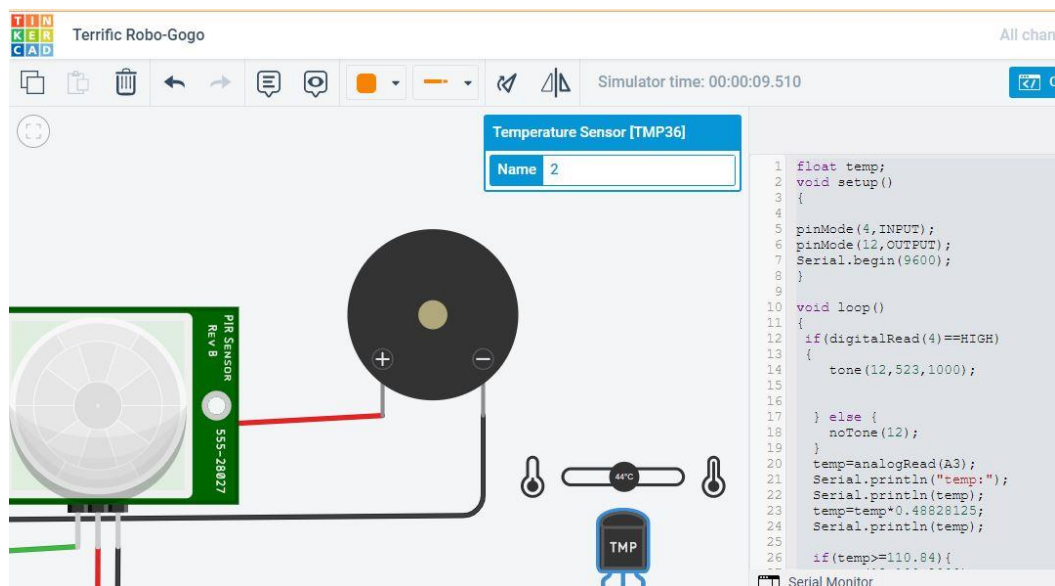
```
}
```

Output:

PIR Sensor alarm



Low Temperature:



High Temperature:

The screenshot displays the Arduino IDE interface with a simulated circuit and a C++ code file. The circuit includes a PIR sensor, a buzzer, and a TMP36 temperature sensor connected to an Arduino Uno. The code implements a logic where a high digital reading from the PIR sensor triggers a buzzer, and an analog reading from the TMP36 sensor is printed to the serial monitor.

Temperature Sensor [TMP36]
Name 2

PIR Sensor Rev 8 555-2827

62°C

TMP

```
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   } else {
17     noTone(12);
18   }
19   temp=analogRead(A3);
20   Serial.println("temp:");
21   Serial.println(temp);
22   temp=temp*0.48828125;
23   Serial.println(temp);
24
25   if(temp>=110.84){
26
27   }
```

Simulator time: 00:00:03.886

Code Stop Simulation

1 (Arduino Uno)

Serial Monitor