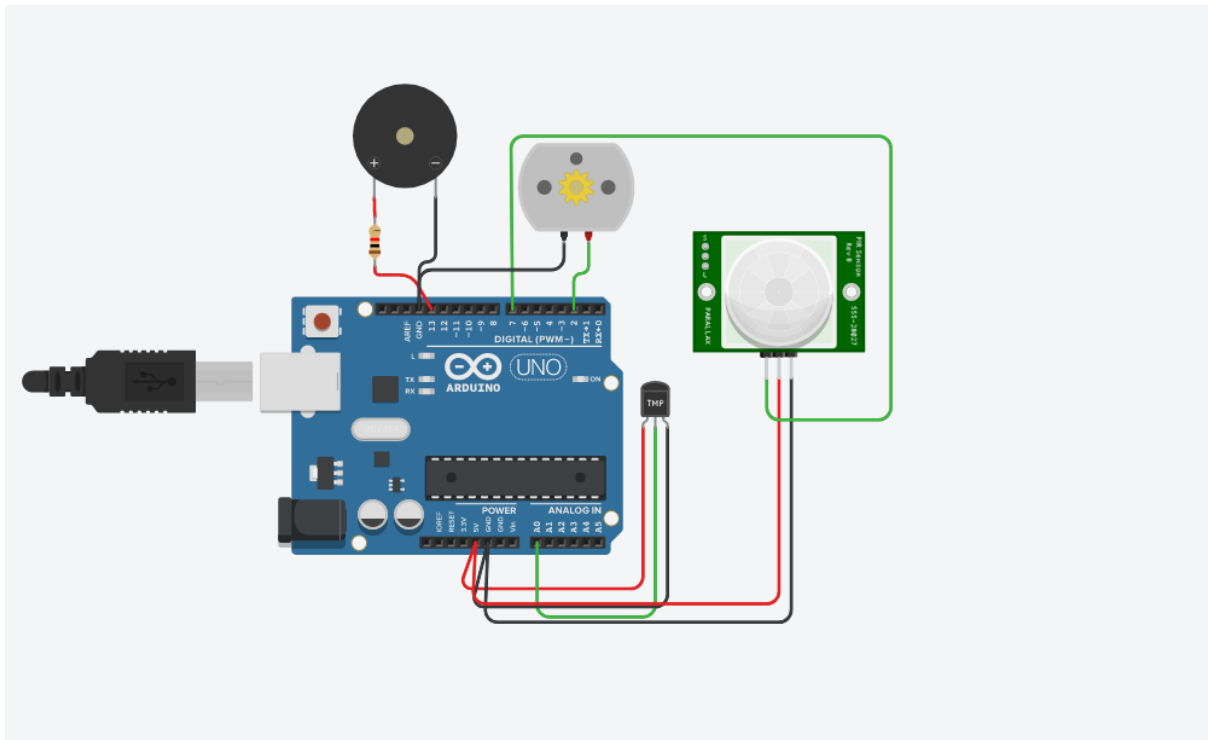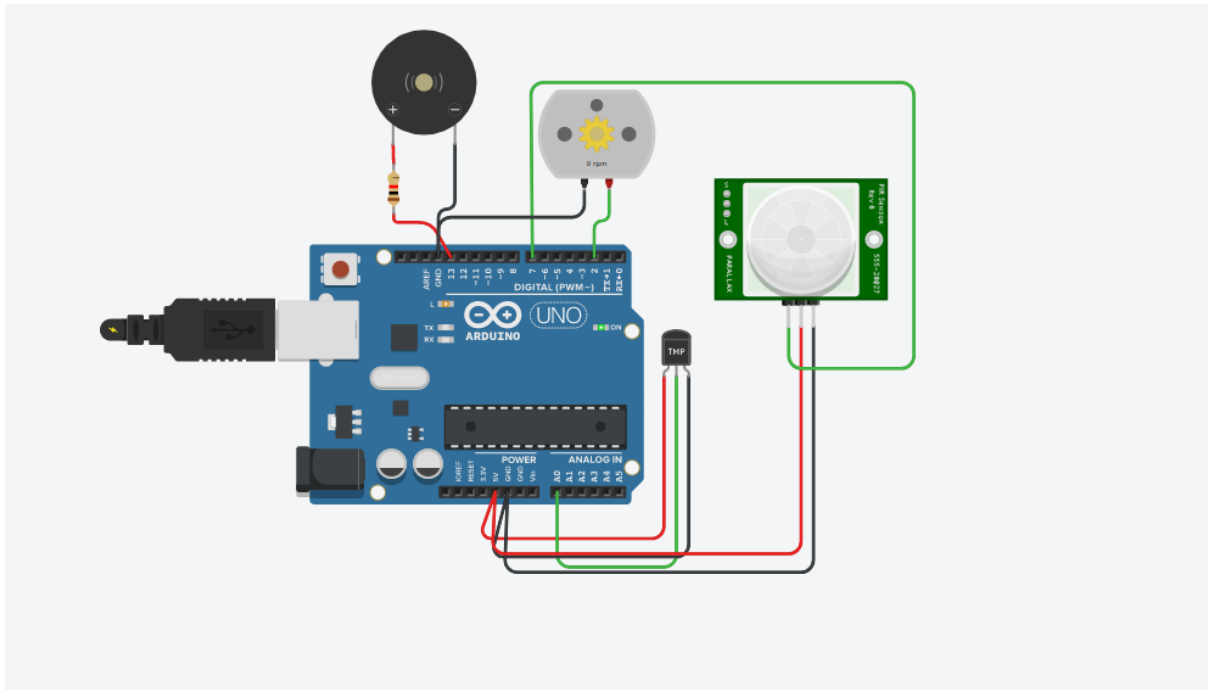**TITLE:** INTERFACING PIEZO ALARM WITH PIR AND TEMPERATURE SENSOR

CIRCUIT DIAGRAM:

BEFORE SIMULATION:

AFTER SIMULATION:

CODE:

```
void setup()

{

Serial.begin(9600);

pinMode(13,INPUT);

pinMode(12,OUTPUT);

}

void loop()

{

  double data=analogRead(A2);

  double n=data/1024;

  double volt=n*5;

  double off=volt-0.5;

  double temperature=off*100;
```

```arduino
  int motion=digitalRead(13);
for(int freq=4;freq<=5;freq++)
  {
   if(temperature>=60)
   {
Serial.println("Temperature is above 60");
    tone(12,freq);
delay(100);
   }
   else
   {
Serial.println("Temperature is below 60");
noTone(12);
   }
  }
for(int freq=2;freq<=3;freq++)
  {
   if(motion==1)
  {
Serial.println("Motion Detected");
   tone(12,freq);
delay(200);
  }
  else
```

```
  {
Serial.println(" No Motion");
noTone(12);
  }
  }
}
```