

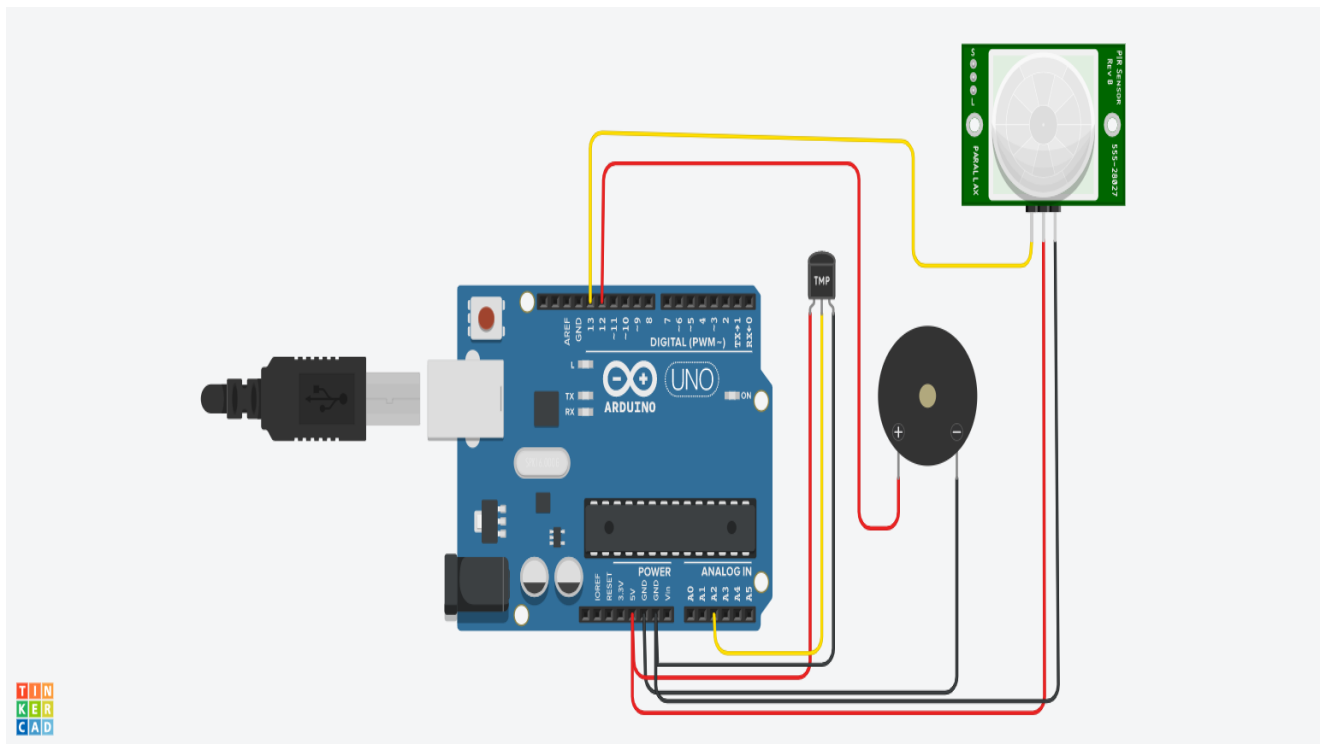
PAVAN PABBATHI

## Circuit Design using Piezo Alarm for Detection of Rise in Temperature using Temperature Sensor and Motion Detection using PIR Sensor

### Features:

- ❖ Alarm buzzes when temperature is detected above 60 deg C.
- ❖ Alarm buzzes another sound if motion is detected.

### Circuit Diagram:



## Program:

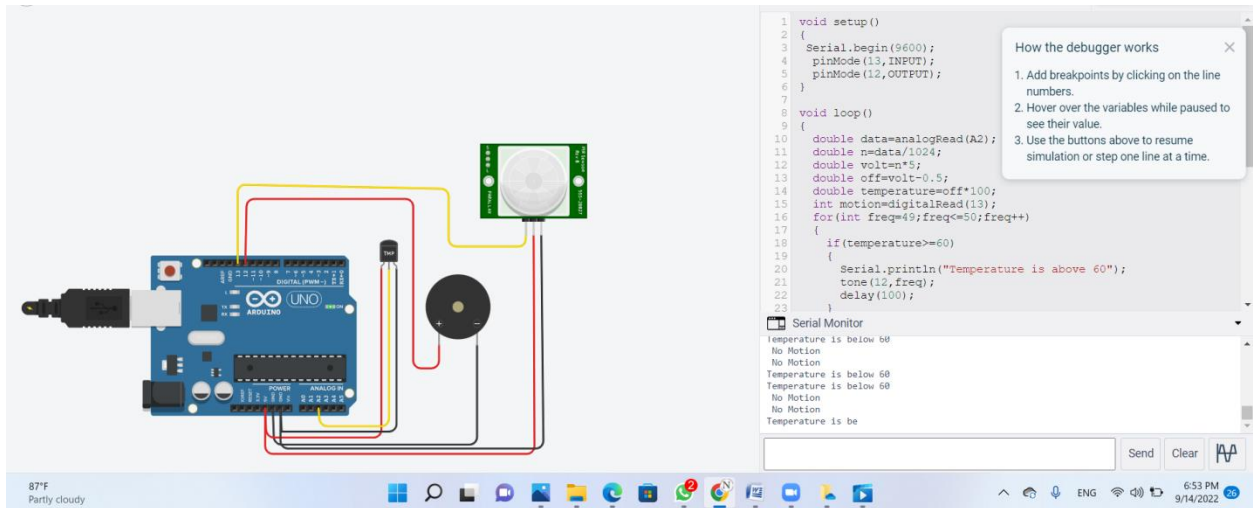
```
void setup()
{
    Serial.begin(9600);
    pinMode(13,INPUT);
    pinMode(12,OUTPUT);
}

void loop()
{
    double data=analogRead(A2);
    double n=data/1024;
    double volt=n*5;
    double off=volt-0.5;
    double temperature=off*100;
    int motion=digitalRead(13);
    for(int freq=49;freq<=50;freq++)
    {
        if(temperature>=60)
        {
            Serial.println("Temperature is above 60");
            tone(12,freq);
            delay(100);
        }
        else
```

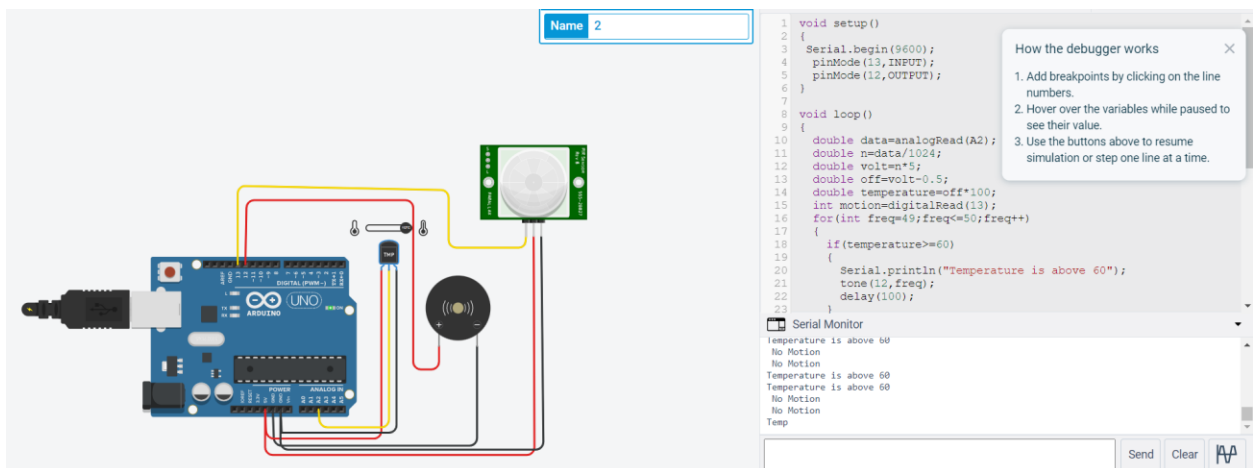
```
{  
    Serial.println("Temperature is below 60");  
    noTone(12);  
}  
}  
for(int freq=9;freq<=10;freq++)  
{  
    if(motion==1)  
    {  
        Serial.println("Motion Detected");  
        tone(12,freq);  
        delay(200);  
    }  
    else  
    {  
        Serial.println(" No Motion");  
        noTone(12);  
    }  
}  
}
```

Outputs:

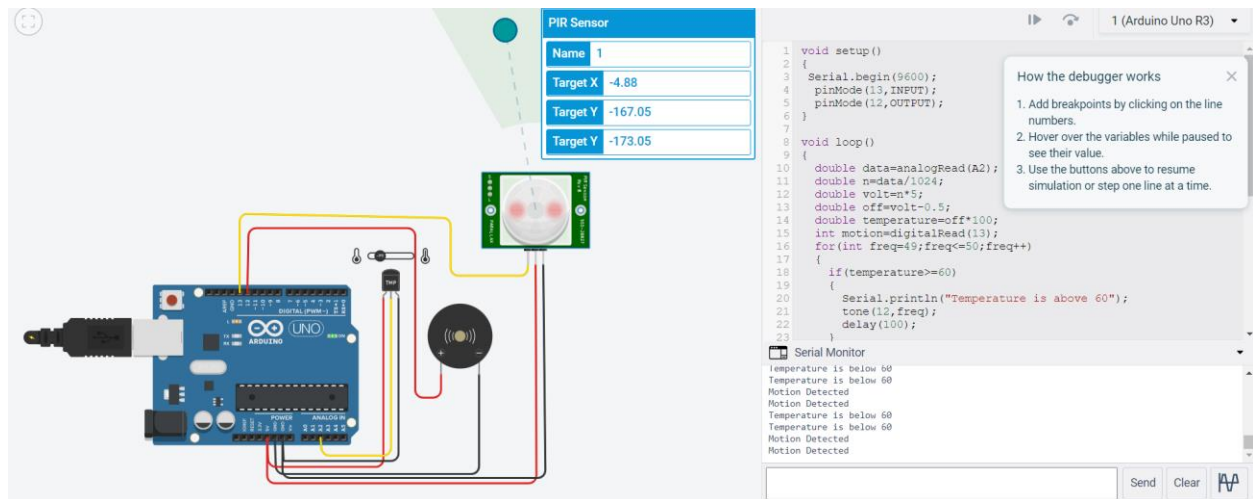
Initial Condition



When Temperature is above 60 C



## When Motion Detected



Video Link:

<https://drive.google.com/file/d/1cH4KEp7jCAst2OvHVI6piWmF8oGFDCVy/view?usp=sharing>