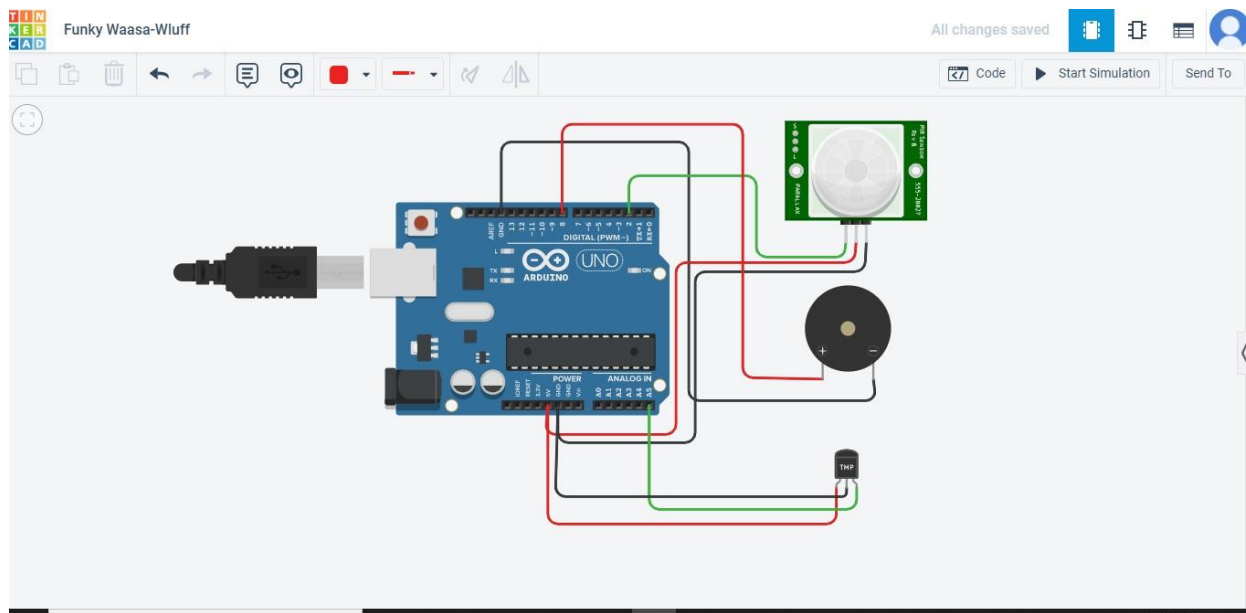# CONNECTIONS:

PROGRAM:

```
void setup()
{
Serial.begin(9600);
pinMode(8,OUTPUT);
pinMode(2,INPUT);

}

void loop()
{
int motion=digitalRead(2);
double data=analogRead(A5);
double n=data/1024;
Serial.print("Converted Analog Data: ");
Serial.println(n);
double volt=n*5;
double off=volt-0.5;
```
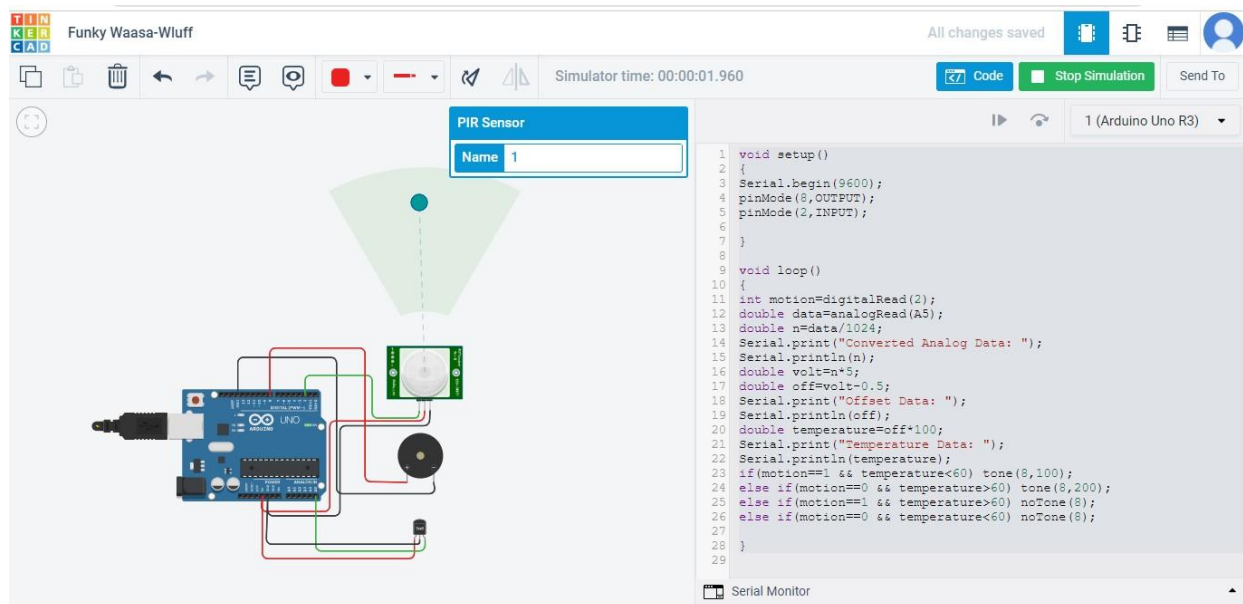
```
Serial.print("Offset Data: ");
Serial.println(off);
double temperature=off*100;
Serial.print("Temperature Data: ");
Serial.println(temperature);
if(motion==1 && temperature<60) tone(8,100);
else if(motion==0 && temperature>60) tone(8,200);
else if(motion==1 && temperature>60) noTone(8);
else if(motion==0 && temperature<60) noTone(8);

}
```

OUTPUT:

Funky Waasa-Wluff

All changes saved

Simulator time: 00:00:01.398

Code | Stop Simulation | Send To

1 (Arduino Uno R3)

```
1   void setup()
2   {
3     Serial.begin(9600);
4     pinMode(8,OUTPUT);
5     pinMode(2,INPUT);
6
7   }
8
9   void loop()
10  {
11    int motion=digitalRead(2);
12    double data=analogRead(A5);
13    double n=data/1024;
14    Serial.print("Converted Analog Data: ");
15    Serial.println(n);
16    double volt=n*5;
17    double off=volt-0.5;
18    Serial.print("Offset Data: ");
19    Serial.println(off);
```

Serial Monitor

```
Temperature Data: 199.51
Converted Analog Data: 0.50
Offset Data: 2.00
Temperature Data: 199.51
Converted Analog Data: 0.50
Offset Data: 2.00
Temperature Data: 199.51
Converted A
```

Send | Clear

11:17 AM