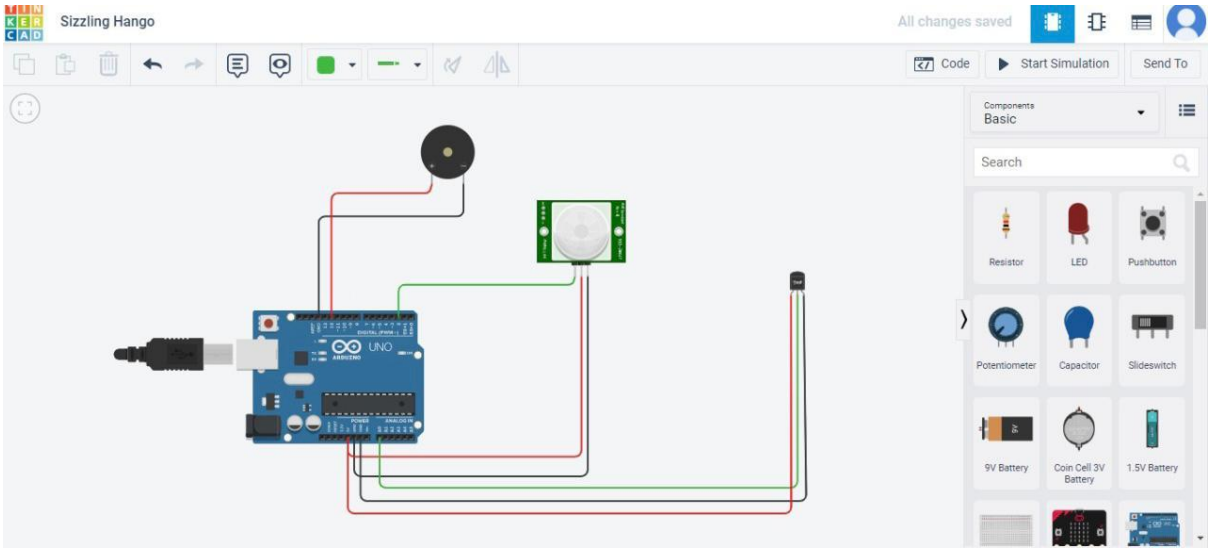
CIRCUIT CONNECTIONS:

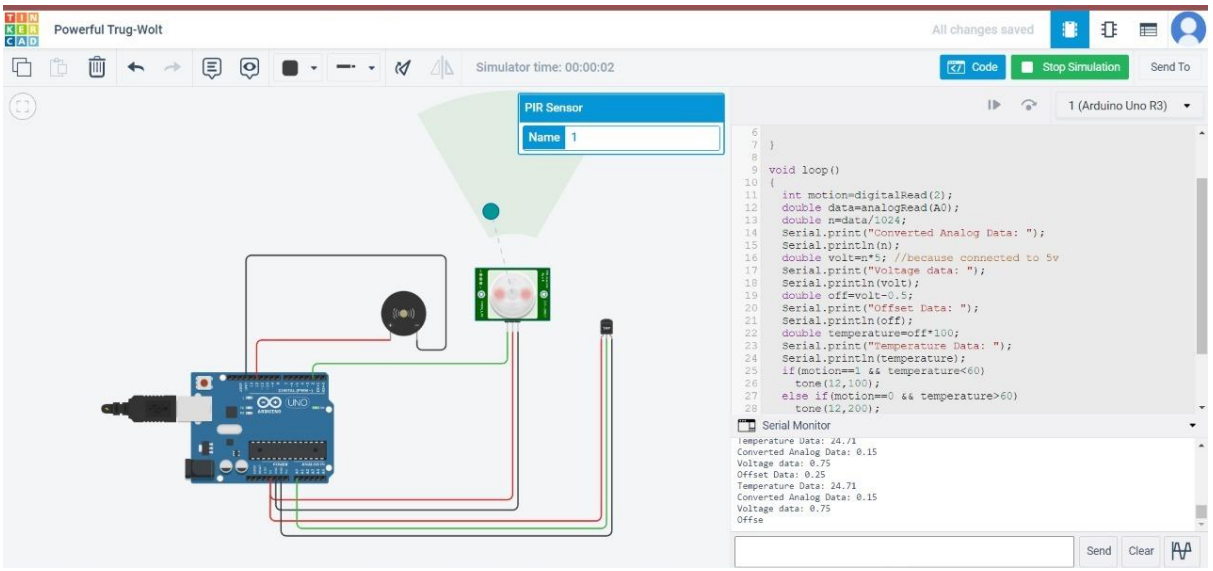


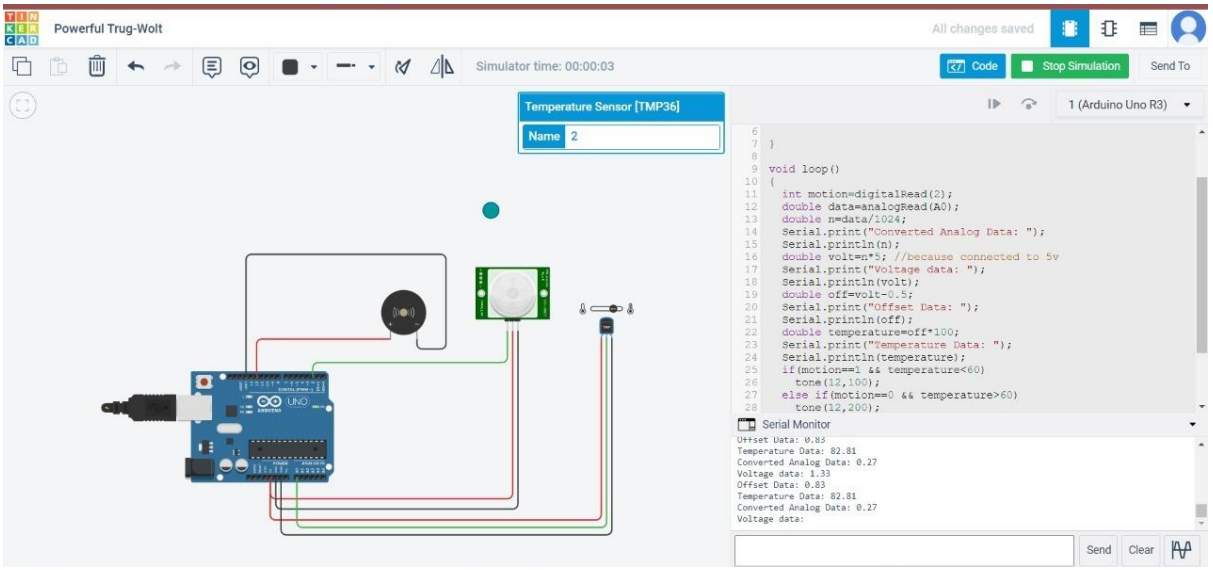
PROGRAM:

```
void setup()
{
  Serial.begin(9600);
  pinMode(12,OUTPUT);
  pinMode(2,INPUT);

}

void loop()
{
  int motion=digitalRead(2);
  double data=analogRead(A0);
  double n=data/1024;
  Serial.print("Converted Analog Data: ");
  Serial.println(n);
  double volt=n*5; //because connected to 5v
  Serial.print("Voltage data: ");
  Serial.println(volt);
  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(12,100);
  else if(motion==0 && temperature>60)
    tone(12,200);
  else if(motion==1 && temperature>60)
    noTone(12);
  else if(motion==0 && temperature<60)
     noTone(12);

}
```

OUTPUT:




Powerful Trug-Wolt
All changes saved
Simulator time: 00:00:03
Code
Stop Simulation
Send To
Temperature Sensor [TMP36]
Name 2
1 (Arduino Uno R3)
}
void loop()
{
int motion=digitalRead(2);
double data=analogRead(A0);
double n=data/1024;
Serial.print("Converted Analog Data: ");
Serial.println(n);
double volt=n*5; //because connected to 5v
Serial.print("Voltage data: ");
Serial.println(volt);
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(12,100);
else if(motion==0 && temperature>60)
tone(12,200);
Serial Monitor
Offset Data: 0.83
Temperature Data: 82.81
Converted Analog Data: 0.27
Voltage data: 1.33
Offset Data: 0.83
Temperature Data: 82.81
Converted Analog Data: 0.27
Voltage data:
Send
Clear