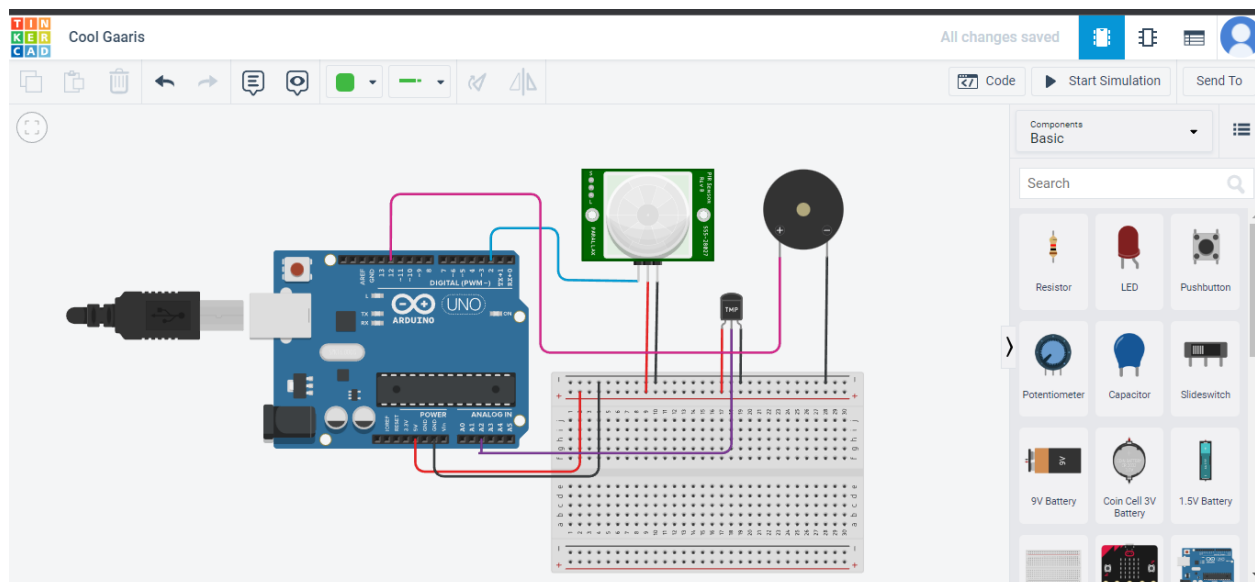# Assignment-1

Code

File   Edit   Format   View   Help

```cpp
// C++ code
//
void setup()
{
  Serial.begin(9600);
  pinMode(2,INPUT);
  pinMode(12,OUTPUT);
}

void loop()
{
 //PIR Sensor
 int motion=digitalRead(2);
 Serial.println(motion);
 if(motion==1){
   Serial.println("Motion detected");
   tone(12,100,1000);
   }
 else
 {
   Serial.println("No Motion ");
 }

 //Temparature Sensor
 double data=analogRead(A2);
 double n=data/1024;
 Serial.println("Converted Analog data: ");
 Serial.println(n);
 double volt=n*5;
 Serial.println("Voltage data: ");
 Serial.println(volt);
 double off=volt-0.5;
 Serial.println("After Offset data: ");
 Serial.println(off);
 double temparature=off*100;
 Serial.println("Temprature data: ");
 Serial.println(temparature);
 if(temparature>=60)
 {
   Serial.println("Temparature is above 60 degree ");
   tone(12,500,2000);
 }
 else
 {
    Serial.println("Temparature is below 60 degree ");
 }
```
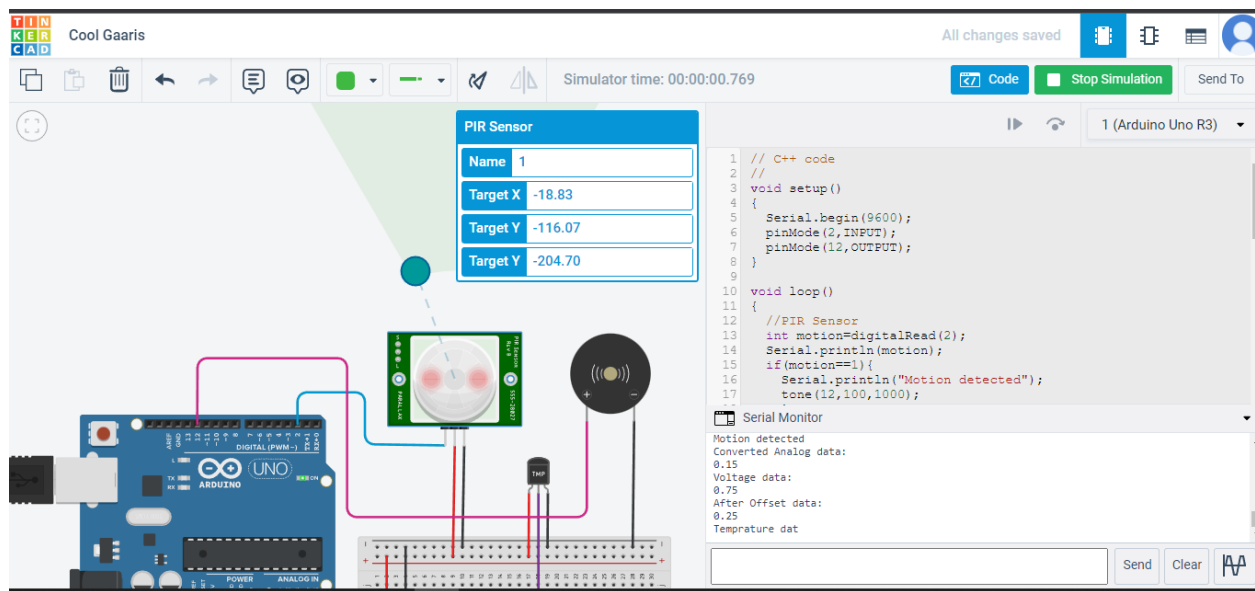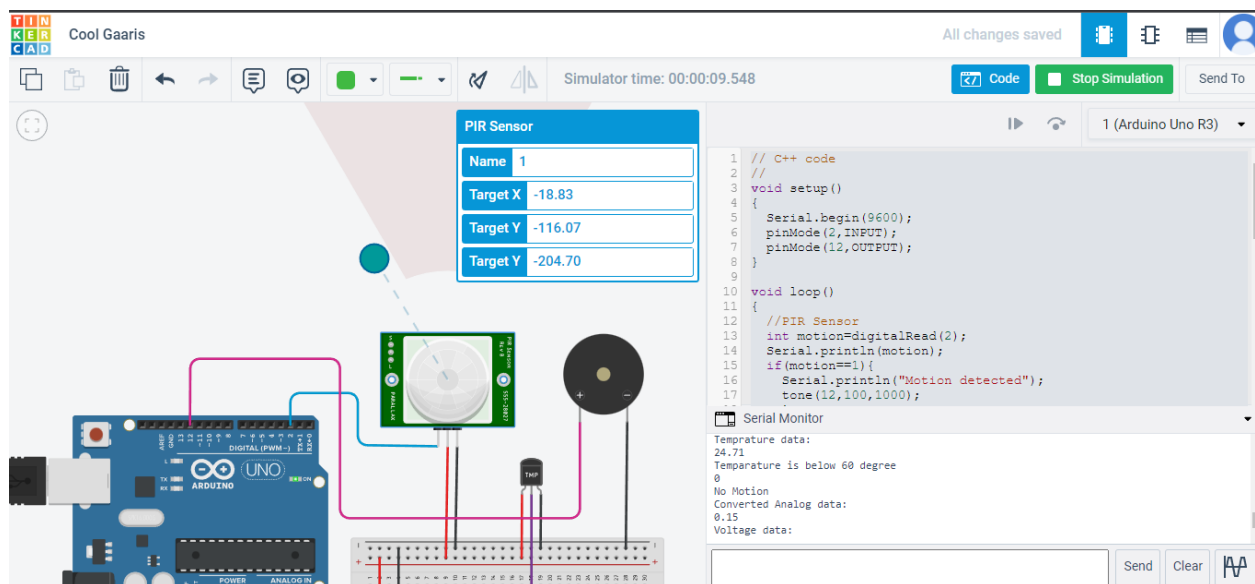
Ln 26, Col 22   80%   Windows (CRLF)   UTF-8

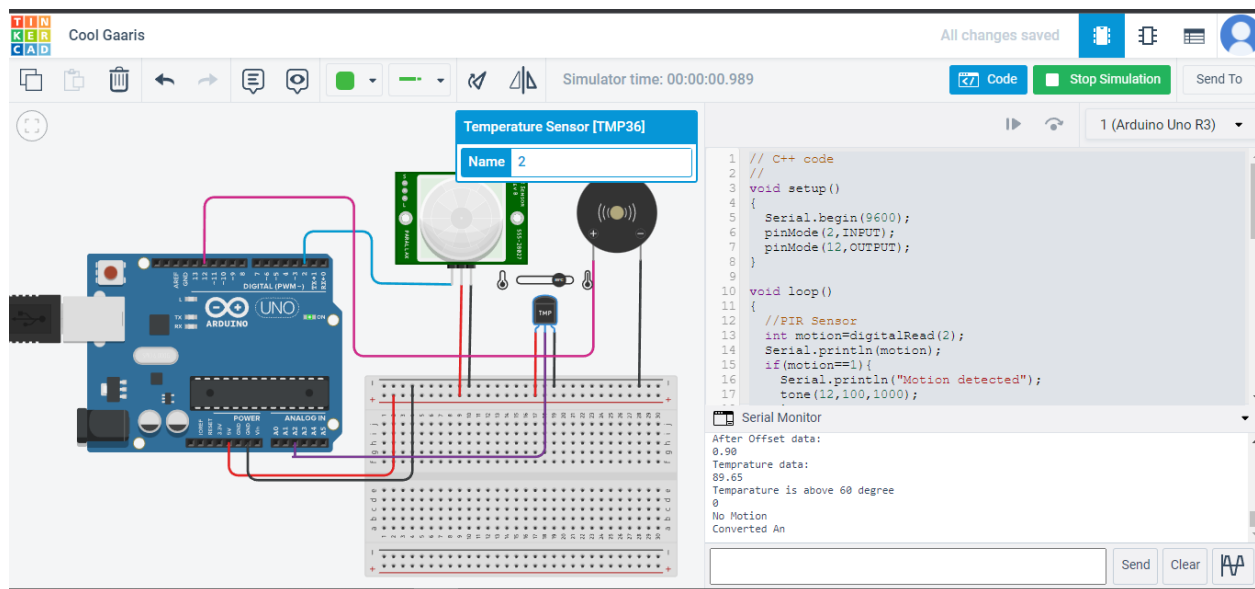## Connections

1.Using PIR Sensor

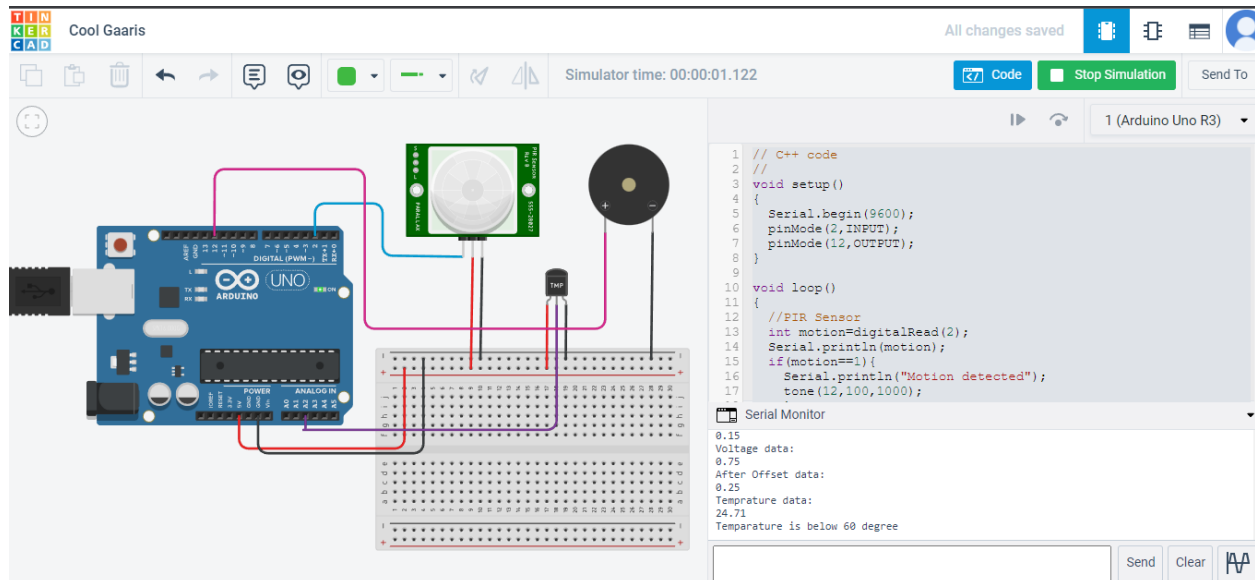

Motion Detected

No Motion

2.Using Temprature Sensor

Temparature is above 60 degree

Temprature is below 60 degree

```cpp
// C++ code
void setup()
{
  Serial.begin(9600);
  pinMode(2,INPUT);
  pinMode(12,OUTPUT);
}
void loop()
{
 //PIR Sensor
 int motion=digitalRead(2);
 Serial.println(motion);
 if(motion==1){
   Serial.println("Motion detected");
   tone(12,100,1000);
   }
 else
 {
   Serial.println("No Motion ");
 }

 //Temaparature Sensor
 double data=analogRead(A2);
 double n=data/1024;
 Serial.println("Converted Analog data: ");
 Serial.println(n);
 double volt=n*5;
 Serial.println("Voltage data: ");
 Serial.println(volt);
 double off=volt-0.5;
 Serial.println("After Offset data: ");
 Serial.println(off);
 double temparature=off*100;
 Serial.println("Temprature data: ");
 Serial.println(temparature);
 if(temparature>=60)
 {
   Serial.println("Temparature is above 60 degree ");
   tone(12,500,2000);
 }
 else
 {
    Serial.println("Temparature is below 60 degree ");
 }
}
```

Link

https://www.tinkercad.com/things/e430HSGfwRv-cool-gaaris/editel?sharecode=HU_Xxxg-
7ljzej1AKdujPWp6nu46k5Tsy69ZhTndDB8