

# Assignment-1

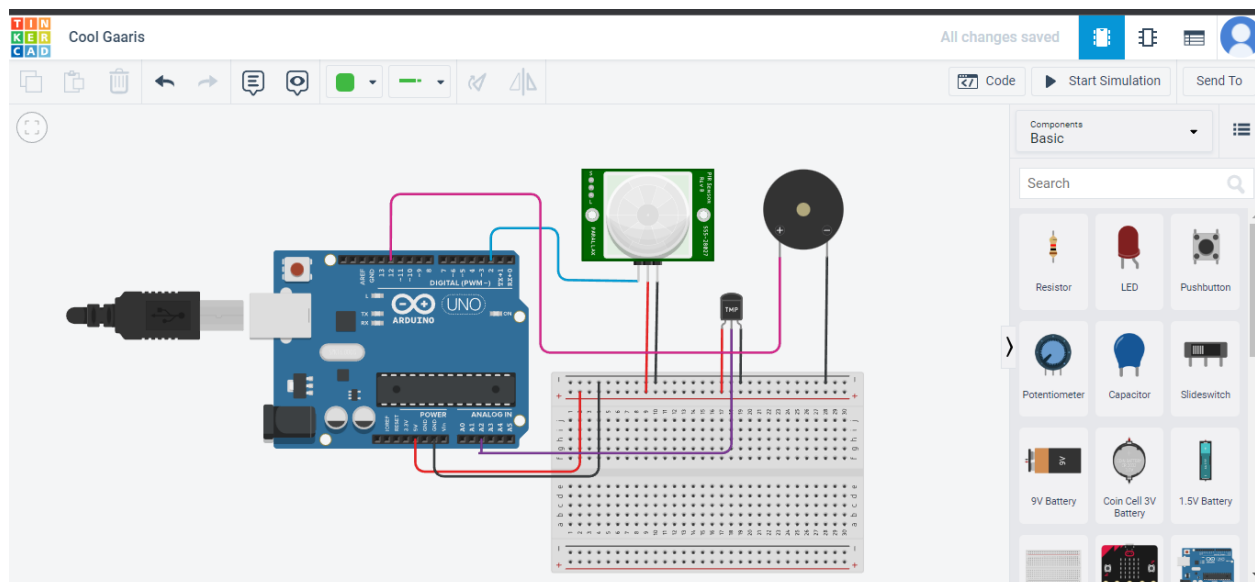
## Code

```
*assignment1 - Notepad
File Edit Format View Help
// C++ code
//
void setup()
{
  Serial.begin(9600);
  pinMode(2,INPUT);
  pinMode(12,OUTPUT);
}

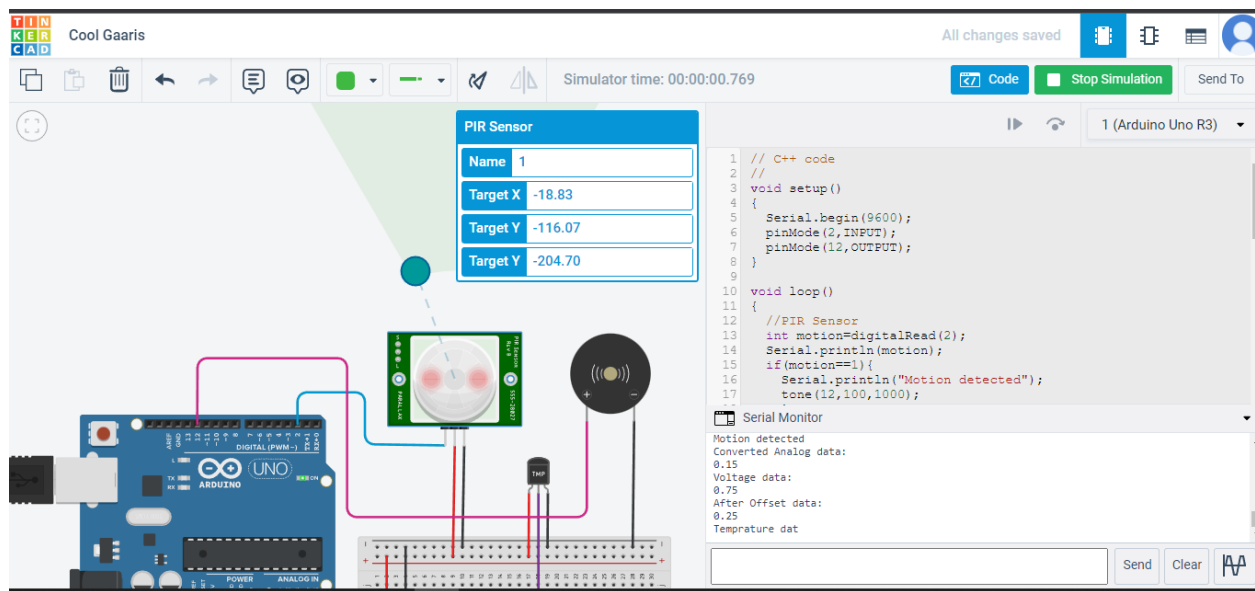
void loop()
{
  //PIR Sensor
  int motion=digitalRead(2);
  Serial.println(motion);
  if(motion==1){
    Serial.println("Motion detected");
    tone(12,100,1000);
  }
  else
  {
    Serial.println("No Motion ");
  }

  //Temapature 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 temperature=off*100;
  Serial.println("Temperature data: ");
  Serial.println(temperature);
  if(temperature>=60)
  {
    Serial.println("Temperature is above 60 degree ");
    tone(12,500,2000);
  }
  else
  {
    Serial.println("Temperature is below 60 degree ");
  }
}
```

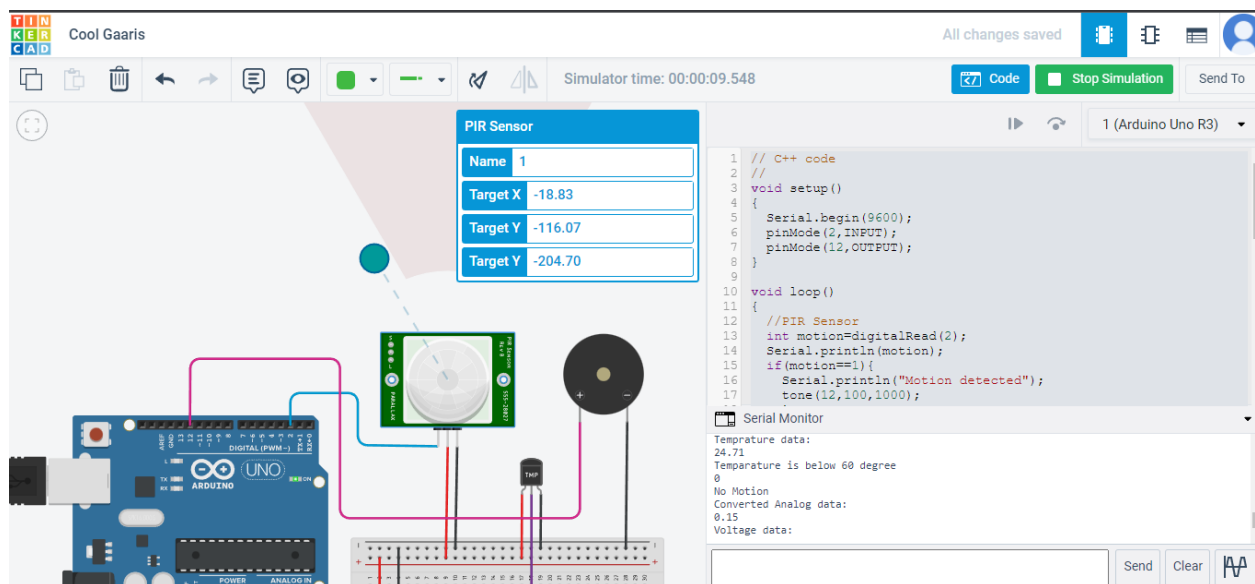
## Connections



## 1.Using PIR Sensor

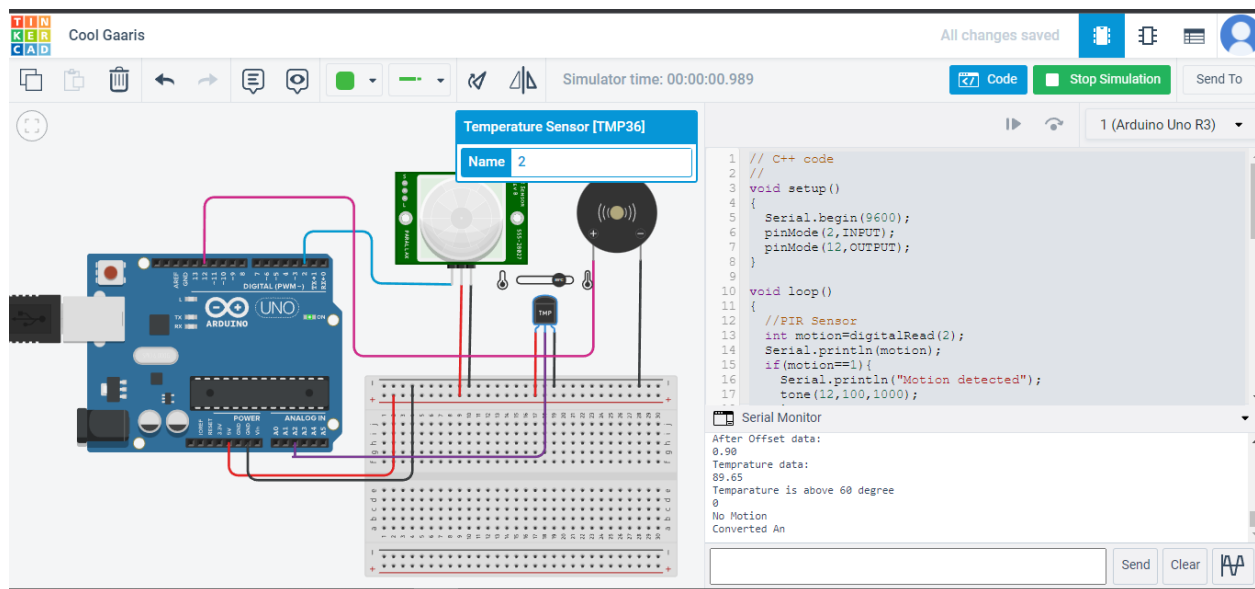


Motion Detected

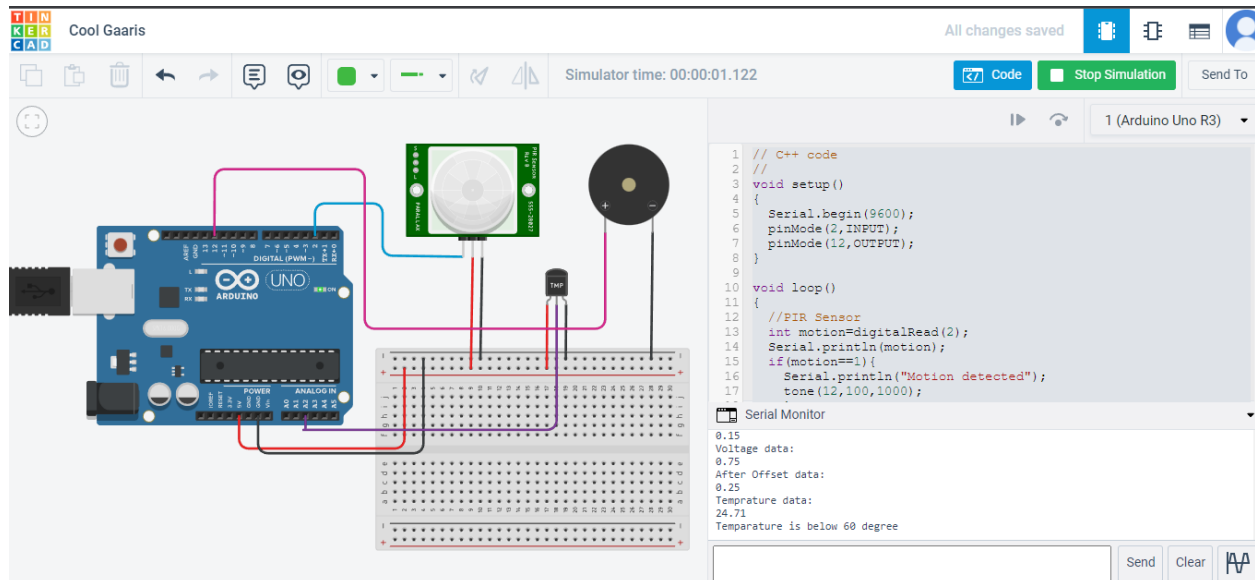


No Motion

## 2.Using Temprature Sensor



Temperature is above 60 degree



Temprature is below 60 degree

```

// 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("Temperature is below 60 degree ");
  }
}

```

Link

[https://www.tinkercad.com/things/e430HSGfwRv-cool-gaaris/editel?sharecode=HU\\_Xxxg-7ljzej1AKdujPWp6nu46k5Tsy69ZhTndDB8](https://www.tinkercad.com/things/e430HSGfwRv-cool-gaaris/editel?sharecode=HU_Xxxg-7ljzej1AKdujPWp6nu46k5Tsy69ZhTndDB8)