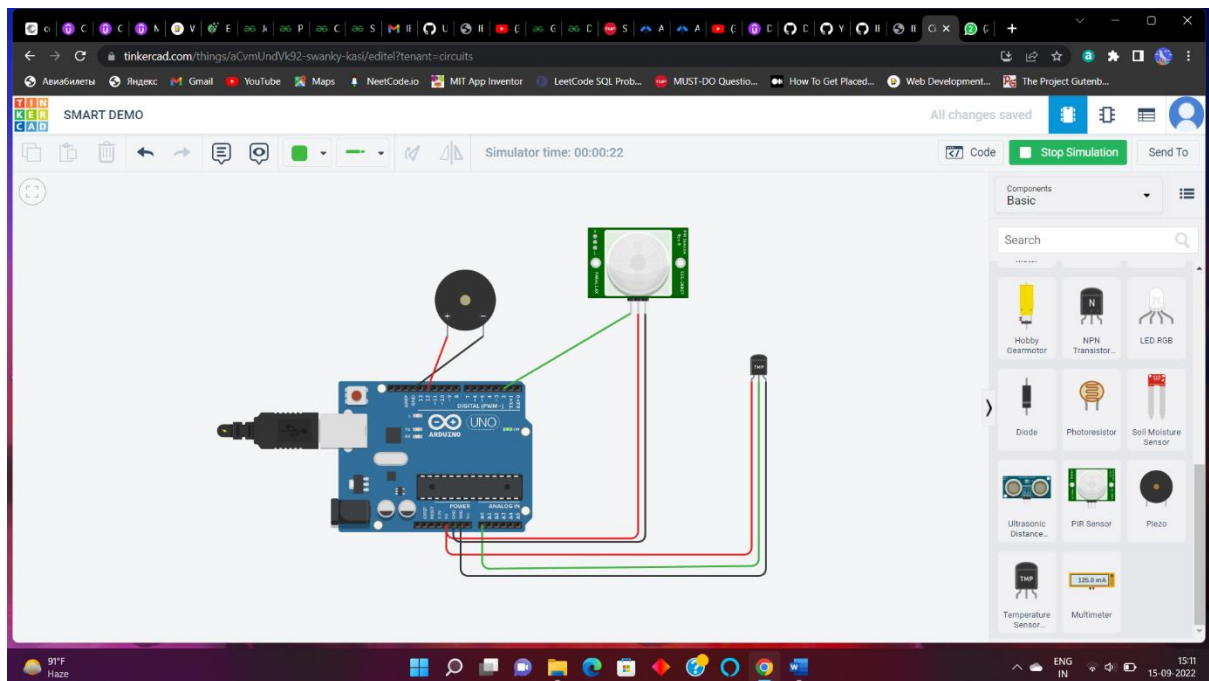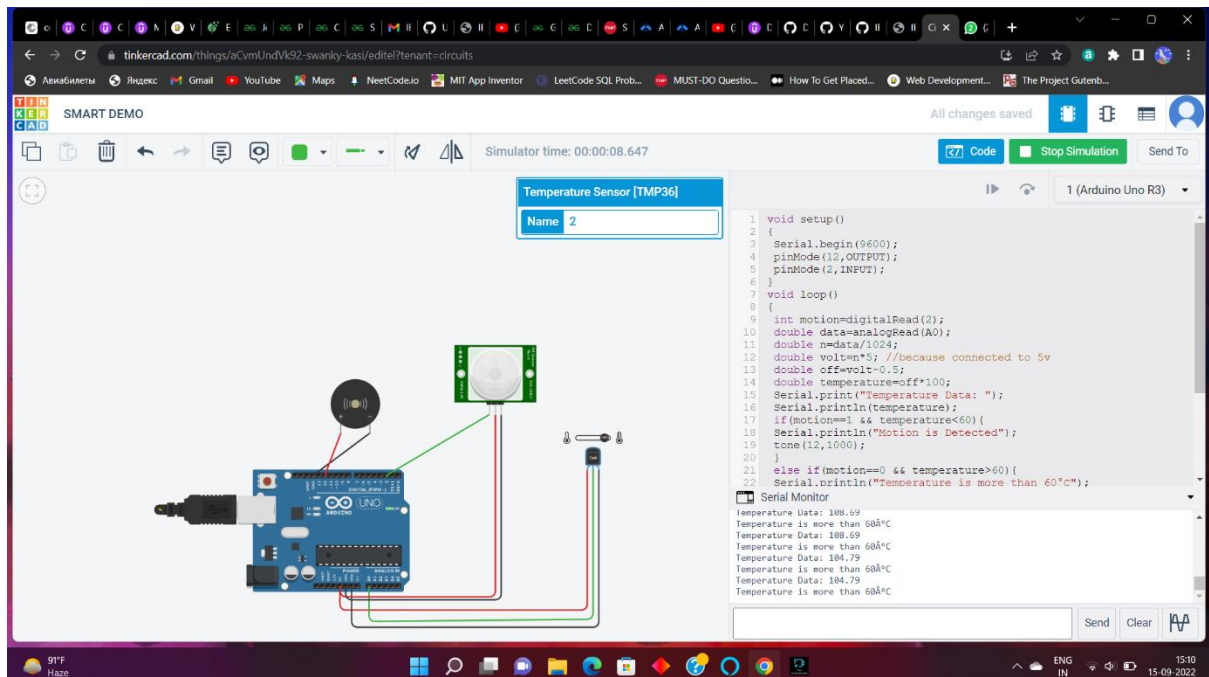CIRCUIT DIAGRAM:

OUTPUT:

```
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;
  double volt=n*5; //because connected to 5v
  double off=volt-0.5;
  double temperature=off*100;
  Serial.print("Temperature Data: ");
  Serial.println(temperature);
  if(motion==1 && temperature<60){
  Serial.println("Motion is Detected");
  tone(12,1000);
  }
  else if(motion==0 && temperature>60){
  Serial.println("Temperature is more than 60°C");
```

Serial Monitor

```
Temperature Data: 108.69
Temperature is more than 60Â°C
Temperature Data: 108.69
Temperature is more than 60Â°C
Temperature Data: 104.79
Temperature is more than 60Â°C
Temperature Data: 104.79
Temperature is more than 60Â°C
```

```
CODE / 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;

 double volt=n*5; //because connected to 5v

 double off=volt-0.5;

 double temperature=off*100;

 Serial.print("Temperature Data: ");

 Serial.println(temperature);

 if(motion==1 && temperature<60){

 Serial.println("Motion is Detected");

 tone(12,1000);

 }else if(motion==0 && temperature>60){

 Serial.println("Temperature is more than 60°C");

 tone(12,2000);

 }else if(motion==1 && temperature>60){

 Serial.println("Motion is Detected");

 Serial.println("Temperature is more than 60°C");

 tone(12,5000);

 }else if(motion==0 && temperature<60)

 noTone(12);

 }
```