Arduino Laser Infrared Thermometer

**Materials:**

* Momentary Button Switch
* Resistors (5K Ohm, 200 Ohm)
* 5V Laser
* Arduino Nano
* On/Off Switch
* OLED 0.96" Screen
* GY-906 Temperature Sensor (or MLX90614 Sensor with proper capacitors/resistors)
* 9V Battery

**Circuit :**



**Codes:**

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| --- |
| //MN Maker//Laser Temp Gun//10.6.19#include <Wire.h>#include <Adafruit\_MLX90614.h>#include <Adafruit\_SSD1306.h>#define SCREEN\_WIDTH 128 // OLED display width, in pixels#define SCREEN\_HEIGHT 64 // OLED display height, in pixelsconst int Laser\_Pin=5; //Laser Pinint buttonState = 0; const int buttonPin = 2; // the number of the pushbutton pin// Declaration for an SSD1306 display connected to I2C (SDA, SCL pins)Adafruit\_SSD1306 display(SCREEN\_WIDTH, SCREEN\_HEIGHT, &Wire, -1);Adafruit\_MLX90614 mlx = Adafruit\_MLX90614();void setup() { Serial.begin(9600); Serial.println("Adafruit MLX90614 test");   pinMode(Laser\_Pin,OUTPUT); pinMode(buttonPin, INPUT);  if(!display.begin(SSD1306\_SWITCHCAPVCC, 0x3C)) { // Address 0x3D for 128x64 Serial.println(F("SSD1306 allocation failed")); for(;;); }  display.clearDisplay(); display.setRotation(2); display.setTextSize(1); display.setTextColor(WHITE); display.setCursor(0, 35); display.println("Initializing Temp"); display.display(); delay(250); display.clearDisplay(); mlx.begin();  }void loop() { buttonState = digitalRead(buttonPin); Serial.println(buttonState);  Serial.print("Ambient = "); Serial.print(mlx.readAmbientTempC());  Serial.print("\*C\tObject = "); Serial.print(mlx.readObjectTempC()); Serial.println("\*C"); Serial.print("Ambient = "); Serial.print(mlx.readAmbientTempF());  Serial.print("\*F\tObject = "); Serial.print(mlx.readObjectTempF()); Serial.println("\*F");  // check if the pushbutton is pressed. If it is, the buttonState is HIGH: if (buttonState == HIGH) { // turn LED on: digitalWrite(Laser\_Pin, HIGH);  display.clearDisplay(); display.setTextSize(2); //Size 2 means each pixel is 12 width and 16 high display.setCursor(25, 10); display.print(mlx.readObjectTempC()); display.setCursor(95, 10); display.print("C"); display.setTextSize(2); display.setCursor(25, 36); display.print(mlx.readObjectTempF()); display.setCursor(95, 36); display.print("F"); display.display();   } else { // turn LED off: digitalWrite(Laser\_Pin, LOW);  display.clearDisplay(); display.setTextSize(2); //Size 2 means each pixel is 12 width and 16 high display.setCursor(35, 10); display.print("-----"); display.setCursor(105, 10); display.print(""); display.setTextSize(2); display.setCursor(35, 36); display.print("-----"); display.setCursor(105, 36); display.print(""); display.display();  } Serial.println(); delay(500);} |