

ESP32 with VL53L0X Realizes IoT Artificial Intelligence Vehicle

simple template program for the single measurement mode

```
JavaScript
#include "Adafruit_VL53L0X.h"

//Create an instance of Adafruit_VL53L0X object
Adafruit_VL53L0X lox = Adafruit_VL53L0X();

void setup() {

    // put your setup code here, to run once:

    Serial.begin(115200);

    // Initialize laser ranging module

    if (!lox.begin()) {

        Serial.println(F("Failed to boot VL53L0X"));

        while(1);

    }

}

void loop() {

    // put your main code here, to run repeatedly:

    // Create a measurement object instance

    VL53L0X_RangingMeasurementData_t measure;
```

```

    // Triggering a single measurement

    lox.rangingTest(&measure, false); // pass in 'true' to get debug
data printout!

    if (measure.RangeStatus != 4) { // Determine the status of the
measurement result
        //Output measurement results

Serial.print("Distance (mm): ");

Serial.println(measure.RangeMilliMeter);

    } else {

        //Out of measurement range

        Serial.println(" out of range ");

    }

    delay(100);

}

```

If you're working on a project using [VL53L0X](#) or [ESP32 development board](#), our website offers a wide range of VL53L0X and ESP32 development board products, and we can also produce customized VL53L0X and ESP32 development board based on your [requirements](#).

[OpenELAB](#) is a **one-stop development platform** for global AIoT electronics enthusiasts and **an open-source community** for electronic engineers. Besides providing developer modules online, our services also include customized [manufacturing](#) of various electronic parts such as micro switches and batteries, as well as plastic or metal parts through **3D printing, injection molding, CNC, laser cutting**, etc.

In addition to VL53L0X and ESP32 development board, OpenELAB offers other electronic component sourcing services such as [sensors](#), [displays](#), [IoT](#), and [more](#). OpenELAB has a user-friendly website that makes it easy to find the components you need, and we offer fast shipping to customers around the world.

Moreover, OpenELAB offers **Design as a Service** ([DaaS](#)) for design optimization, **Manufacturing as a Service** ([MaaS](#)) for production manufacturing, **Supply Chain as a Service** ([SaaS](#)) for supply chain support, and **Quality as a Service** ([QaaS](#)) for quality control to AIoT products transitioning into mass production, ensuring a smooth transition to the [commercial production phase](#).

Most importantly, OpenELAB is dedicated to **building a global open-source community** for AIoT electronic developers. Through the OpenELAB open community, developers in the AIoT electronic revolution can **collaborate, empower each other, and create a culture of mutual respect and collaborative sharing, generating more innovative AIoT intelligent hardware products** for the world.