

# Unit ToF4M

SKU:U172



## Description

**Unit ToF4M** is a high-precision distance sensor unit that utilizes the VL53L1CXV0FY/1 sensor and Time-of-Flight (ToF) technology to accurately measure distances within a range of 4 meters. The sensor outputs data via I2C (communication address: 0x29) and can communicate through a Grove port.

This sensor has a wide range of applications, including robotics, autonomous vehicles, drones, and security systems. In specific applications, it can not only measure the height of objects but also detect the presence of objects and monitor their movement.

## Features

- Measurement range up to 4 meters
- Fast response time
- Long lifespan
- Programming platforms:
  - Arduino
  - UIFlow

## Includes

- 1 x Unit ToF4M
- 1 x HY2.0-4P Grove cable (20cm)

## Applications

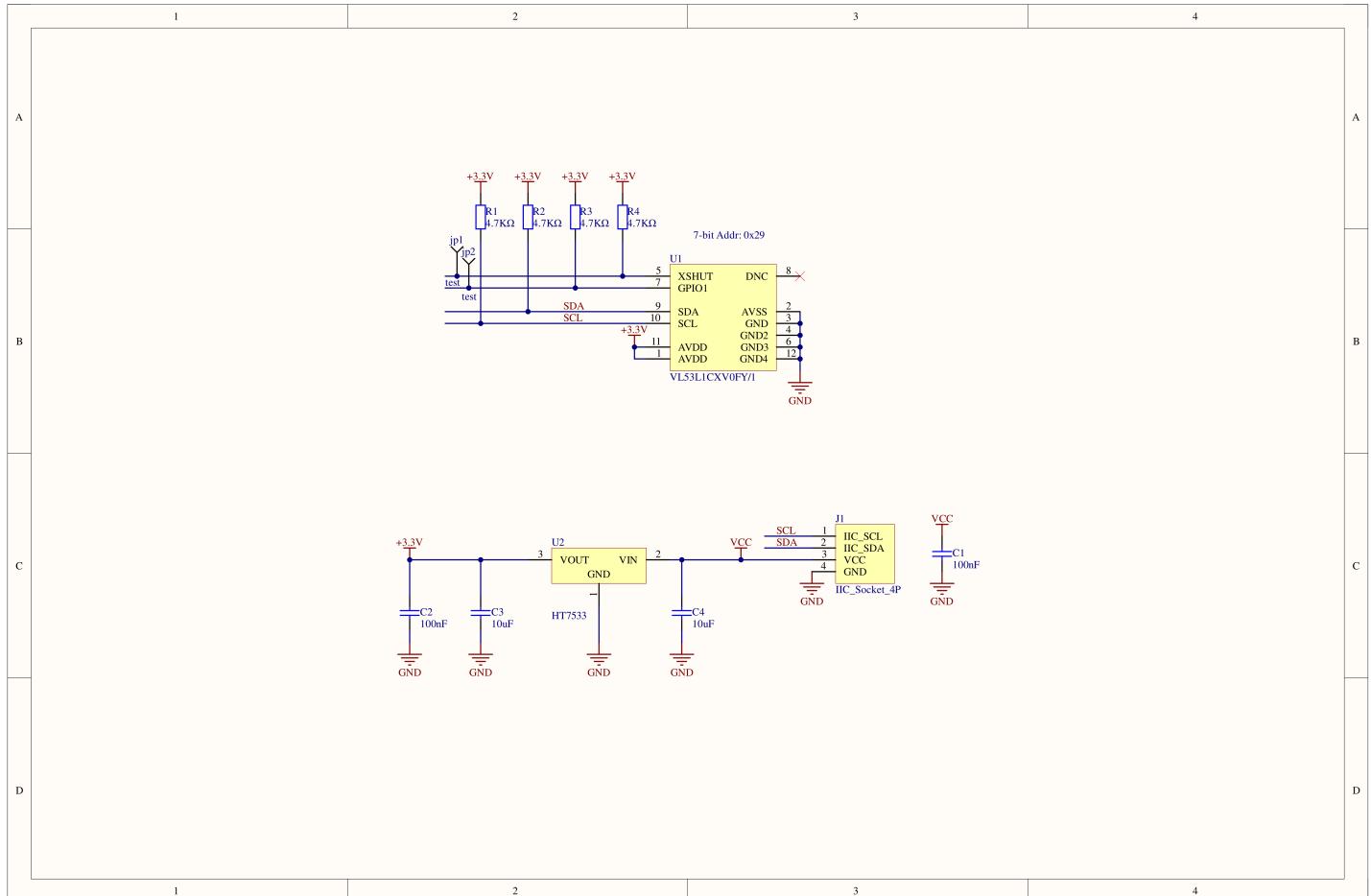
- Robotics
- Autonomous driving
- Drones
- Security systems

## Specifications

Specification	Parameter
Sensor	VL53L1CXV0FY/1
Measurement Range	4 ~ 400cm
Resolution	Millimeter level
Measurement Speed	Millisecond level
Field of View (FoV)	15 ~ 27°
Light Source Type	Laser (ToF)
Communication Interface	I2C Communication @0x29
Operating Temperature Range	0 ~ 40°C
Product Size	32.0 x 24.0 x 8.0mm
Product Weight	4.3g
Package Size	138.0 x 93.0 x 9.0mm
Gross Weight	10.0g

## Schematics

- [Unit ToF4M Schematics PDF](#)

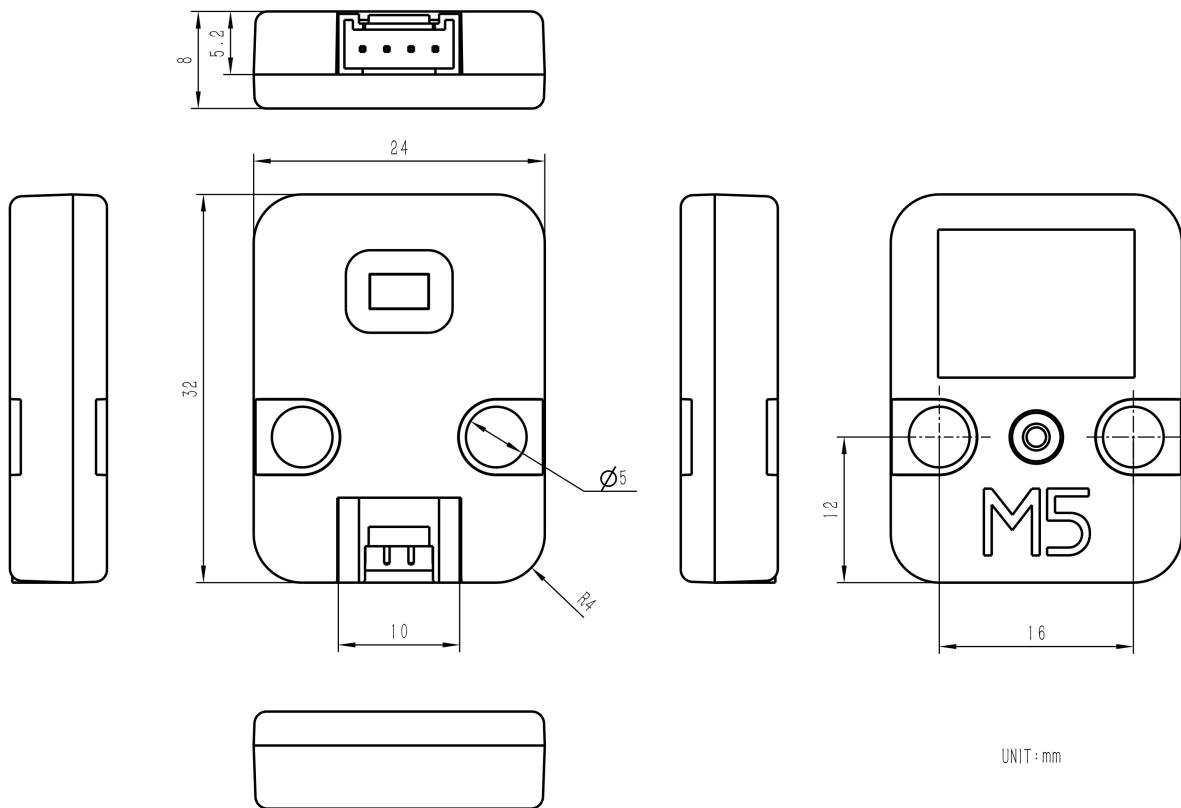


## PinMap

### Unit ToF4M

HY2.0-4P	Black	Red	Yellow	White
PORT.A	GND	5V	SDA	SCL

### Model Size



## Datasheets

- [VL53L1CXV0FY/1](#)

## Softwares

### Arduino

- [Unit ToF4M Arduino Library](#)

### UiFlow1

- [Unit ToF4M UiFlow1 Docs](#)

## Video

- [Unit ToF4M Application Example](#)

[U172 ToF4M Unit 视频.mp4](#)

## Product Comparison

## Product Compare



**Unit-ToF4M**

**Unit-TOF**

Chip	VL53L1X	VL53L0X
Maximum Range	4 meters	2 meters
Typical Accuracy	±1-2%	±3%
Field of View (FoV)	27° (adjustable)	25°
Adjustable Field of View	YES	NO