

Linux driver for the VL53L4CD Time-of-Flight high accuracy proximity sensor



Features

- Linux driver
- Based on VL53L4CD ultra lite driver (ULD)

Description

The STSW-IMG028 contains a driver running under Linux. It is based on the VL53L4CD ULD. The user integrates the Linux device driver into the Linux as a specific implementation. Then, the Linux device driver implements the sequencing of actions, execution/threading of models, platform adaptations, and device structure allocations. The software is validated using Raspberry Pi 3. The driver is split into two parts: a kernel module and a user mode.

The VL53L4CD ULD is a set of C functions controlling the VL53L4CD device (for example, init and ranging) to enable the development of end-user applications.

Specifically designed for proximity and short-range measurements, the VL53L4CD provides very accurate distance measurements from only 1 mm up to 1200 mm. A new generation laser emitter with 18° field of view (FoV) improves performances under ambient light, with ranging speed up to 100 Hz.

With very low power consumption, thanks to an Autonomous mode with programmable distance threshold, the VL53L4CD is ideal for use in battery powered devices. Its fully embedded on-chip processing helps to reduce design complexity as well as BOM cost since less powerful and less expensive microcontrollers can be used.

Product status link

[STSW-IMG028](#)

Revision history

Table 1. Document revision history

Date	Version	Changes
15-Oct-2021	1	Initial release

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