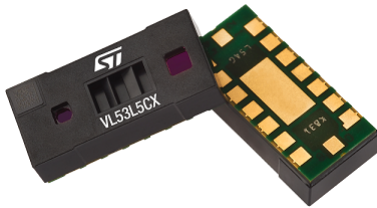# Linux driver for the VL53L5CX Time-of-Flight 8x8 multizone ranging sensor with wide field of view

Features

- Linux driver
- based on the VL53L5CX Ultra Lite Driver (ULD)

Description

The STSW-IMG025 contains a driver running under Linux®. It is based on the VL53L5CX 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, according to standard Linux device driver models. The software is validated using Raspberry Pi 3. The driver can be used in User Space or Kernel thanks to compilation keys.

The VL53L5CX is a state of the art, Time-of-Flight (ToF), laser-ranging sensor enhancing the ST FlightSense product family. Housed in a miniature reflowable package, it integrates a SPAD array, physical infrared filters, and diffractive optics (DOE) to achieve the best ranging performance in various ambient lighting conditions with a range of cover glass materials.

Unlike conventional IR sensors, the VL53L5CX uses ST's latest generation, direct ToF technology which allows absolute distance measurement whatever the target color and reflectance. It provides accurate ranging up to 400 cm and can work at fast speeds (60 Hz), which makes it the fastest, multizone, miniature ToF sensor on the market.

Multizone distance measurements are possible up to 8x8 zones with a wide 63° diagonal field of view (FoV) which can be reduced by software.

Product status link
STSW-IMG025

DB4508 - Rev 1 - June 2021
For further information contact your local STMicroelectronics sales office.

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Revision history

Table 1. Document revision history

Date	Version	Changes
10-Jun-2021	1	Initial release

IMPORTANT NOTICE – PLEASE READ CAREFULLY