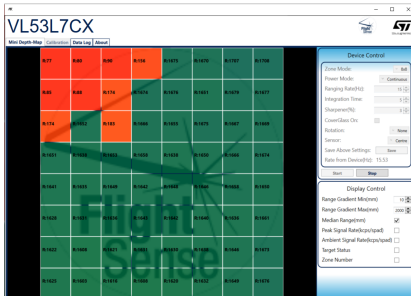


P-NUCLEO-53L7A1 pack graphical user interface (GUI)



Features

- Live display of:
 - ranging distance in mm
 - signal strength in kcps/SPAD
 - ambient light in kcps/SPAD
 - status of the ranging
- Calibration procedure
- Data log outputs
- I2C transaction recording

Description

The STSW-IMG037 is a GUI for Windows 10. The GUI controls the P-NUCLEO-53L7A1 pack which consists of the X-NUCLEO-53L7A1 expansion board connected to the NUCLEO-F401RE nucleo board.

It is possible to control one VL53L7CX external breakout board when it is connected to the X-NUCLEO-53L7A1 expansion board through one of the dedicated connectors.

To install the STSW-IMG037 GUI, refer to the X-NUCLEO-53L7A1 quick start guide. Specially designed for applications requiring an ultrawide FoV, the VL53L7CX Time-of-Flight sensor offers a 90° diagonal FoV. Based on ST's FlightSense technology, the VL53L7CX incorporates an efficient metasurface lens (DOE) placed on the laser emitter. This enables the projection of a 60° x 60° square FoV onto the scene.

Its multizone capability provides a matrix of 8x8 zones (64 zones) and can work at fast speeds (60 Hz) up to 350 cm.

Thanks to the autonomous mode with programmable distance threshold combined to the ultrawide FoV, the VL53L7CX is perfect for any application requiring low-power user detection. ST's patented algorithms and innovative module construction allow the VL53L7CX to detect, in each zone, multiple objects within the FoV with depth understanding. ST histogram algorithms ensure cover glass crosstalk immunity beyond 60 cm.

The VL53L7CX is the perfect sensor for any application requiring ultrawide FoV like robotics, smart speakers, video projectors, and content management. The combination of the multizone capability and the 90° FoV can enhance new use-cases like gesture recognition, SLAM for robotics, and low power system activation for smart building.

Product status link

[STSW-IMG037](#)

Revision history

Table 1. Document revision history

Date	Version	Changes
16-Sep-2022	1	Initial release

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