



Description

The X-NUCLEO-IKP01A is an evaluation board that provides an introduction to the proximity, ranging and light sensing capabilities of the VL6180X sensor. It is the ideal companion to the STM32 F401 Nucleo board, and it is also compatible with the Arduino UNO R3 connector layout.

The VL6180X explorer shield features the VL6180X proximity sensor, based on ST's FlightSense™, Time-of-Flight, technology, and provides very accurate ranging information, as well as ambient light sensing (ALS) information. The range measurements are independent of the target reflectance.

Features

- VL6180X Gesture, ALS and proximity sensor.
- Slider switch controlling 2 functions:
 - Ranging measurement, up to 100mm.
 - Ambient light sensing, up to 9999 Lux.
- 4-digit display, displaying either the lux value from the ambient light sensing (ALS) or the target distance from the proximity sensor.
- Excellent ranging accuracy, whatever the reflectance of the target.
- External small PCB with VL6180X can be soldered to the shield through flying wires, in order to integrate the VL6180X in customer's application.
- Basic gesture recognition, or 2x VL6180X application can be featured, using together the sensor on the shield and an external sensor.
- Compatible with STM32 F401 Nucleo board.
- Equipped with Arduino UNO R3 connector.
- RoHS compliant.
- Full system SW supplied, download from www.st.com/vl6180x.

Table 1. Ordering information

Order code	Description
X-NUCLEO-IKP01A	VL6180X explorer shield

Revision history

Table 2. Document revision history

Date	Revision	Changes
24-Jun-2014	1	Initial release.

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