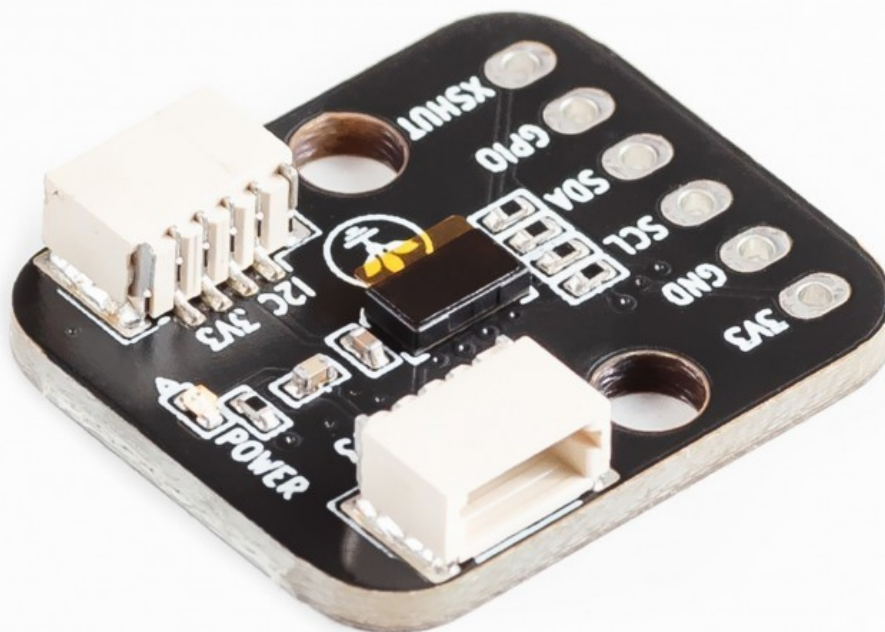


Groundstudio VL53L0CX module



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Module Circuit Schematic

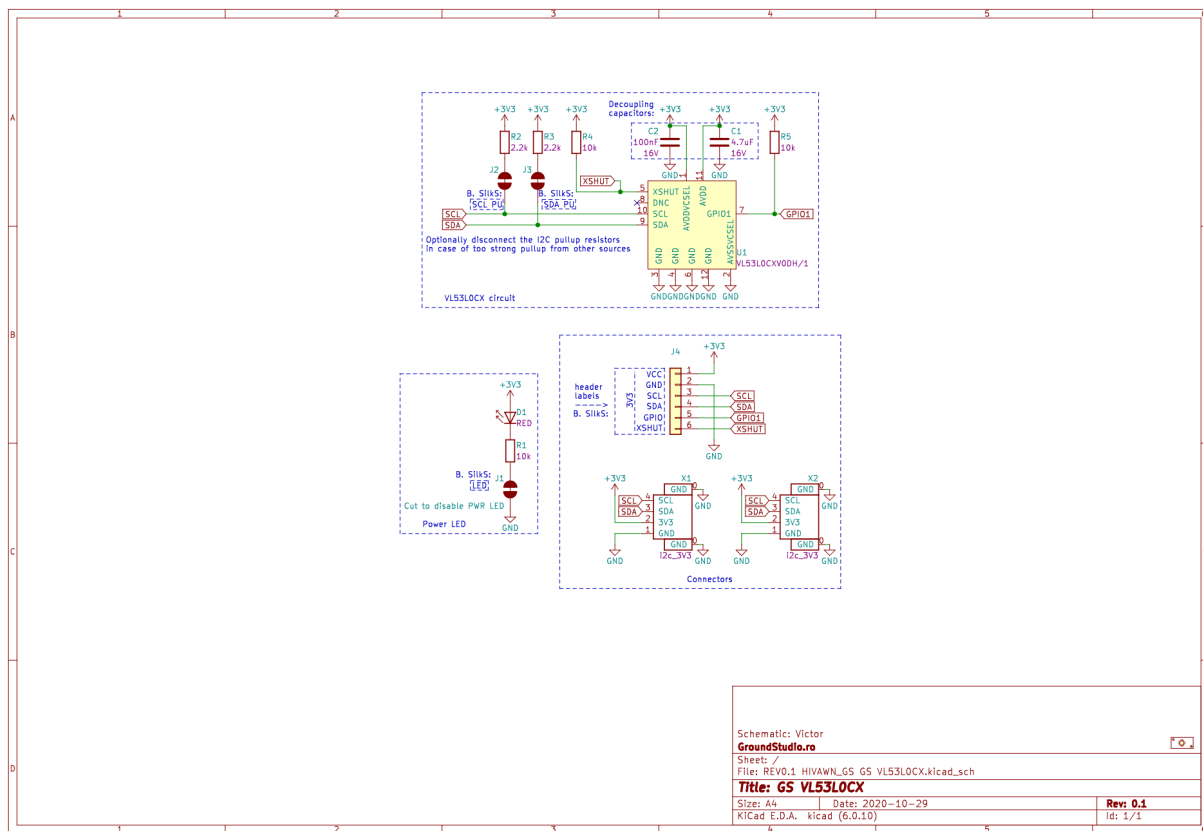


Figure 2: GroundStudio VL53L0CX module schematic circuit [Revision 0.0.1]

Open Source

This is an Open Source project, you can find all the technical documents online:

<https://github.com/GroundStudio/GroundStudio-VL53L0CX-module>

License

All documentation for GroundStudio Marble Pico is released under the [Attribution-ShareAlike 4.0 International \(CC BY-SA 4.0\)](#) license. You are welcome to use this for commercial purposes.

Please consider contributing back to this project or others to help the open-source hardware community continue to thrive and grow!

Overview

The module integrates the VL53L0X distance sensor that uses a class 1 laser with a wavelength of 940nm and communicates using the I²C standard so it can be easily used together with most development boards.

The sensor can be used for applications where accurate distance calculation is required or for the detection of certain gestures.

The presence of the supply voltage on the I²C 3V3 port is indicated by the "PWR LED" located on the module.

For cases where power consumption is important, the "PWR LED" can be disconnected using the "PWR LED DISABLE" jumper located on the back of the pcb.

The I²C address of the sensor is 0x52 and can be found on the back of the pcb.

I²C 3V3 connectors are compatible with Qwiic (SparkFun) and STEMMA QT (Adafruit) standards.

Technical specifications

Measured distance: **up to 1.2m**

Supply voltage: **3.3V DC**

Communication protocol: **I²C**

I²C address: **0x52**

Connector type I²C 3V3: SH 4P

I²C 3V3 connector pitch: 1mm

Laser: class 1 (according to standard IEC 60825-1:2014 - 3rd edition)

Legal disclaimer notice

This development board is considered a subassembly in accordance with FCC CFR Title 47 §15.101(e):

[https://www.ecfr.gov/current/title-47/chapter-I/subchapter-A/part-15/subpart-B/section-15.101#p-15.101\(e\)](https://www.ecfr.gov/current/title-47/chapter-I/subchapter-A/part-15/subpart-B/section-15.101#p-15.101(e))

The device does not have a standalone functionality and does not include an enclosure or power supply.

The device is mainly intended for development and prototyping but it can be integrated into a product. In this case it is the responsibility of the developer/manufacturer to obtain all the necessary certifications.

GroundStudio is a registered trademark of ARDUSHOP SRL:

<https://www.tmdn.org/tmview/#/tmview/detail/EM500000018364087>

Developer info

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Datasheet Revision History

[Revision 1] - Initial version release