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SparkFun ToF Range Finder Breakout - VL6180

SEN-12784 ROHS

DESCRIPTION

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This is the SparkFun "Time-of-Flight" Range Finder, a breakout for the VL6180 distance sensor. Unlike most distance sensors that rely reflected light intensity or reflected angles to determine range, the VL6180 uses a precise clock to measure the time it takes light to bounce back from a surface. This affords the ToF Range Finder and VL6180 a great benefit over other methods because it can be much more accurate and more immune to noise. Does this technology sound familiar? Well it should, it's the same means cellphones use to detect when the caller is holding their phone to their ear.

This breakout for the VL6180 is as simple as it gets. Only the required passives are populated to give you the smallest, most cost effective way to use multiple sensors in a project with an I²C interface. The VL6180 is actually a 3-in-1 package that combines an IR emitter, a range sensor, and an ambient light sensor together for you to easily use. We've broken out each pin that is required to use the VL6180, including: IO1, IO0, SCL, SDA, 2.8V, and GND. Please be sure to note, however, the ToF Range Finder Breakout only accepts 2.8V input and logic. You must provide a 2.8V voltage source and level shifting to 3.3V and 5V devices.

Note: Though the datasheet states the VL6180 measures an absolute range of up to 10cm, we have successfully tested it up to 25cm. The more you know.

SparkFun ToF Range Finder Breakout - VL6180 Product Help and Resources

TUTORIALS

VIDEOS

SKILLS NEEDED

VL6180 Hookup Guide

FEBRUARY 12, 2015

Get started with your VL6180 based sensor or the VL6180 breakout board.

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REVIEWS 1

Customer Reviews

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4 star

1

3 star

0

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voltages...

about 3 years ago by [Sixerdoodle](#)

verified purchaser

bummer that this was left as a 2.8v device. makes it really tough to do something with. Suggest in the next version adding a Vin pin and a small 2.8v regulator. Would make it immensely more friendly as an evaluation / breakout board.

START SOMETHING

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In 2003, CU student Nate Seidle blew a power supply in his dorm room and, in lieu of a way to order easy replacements, decided to start his own company. Since then, SparkFun has been committed to sustainably helping our world achieve electronics literacy from our headquarters in Boulder, Colorado.

No matter your vision, SparkFun's products and resources are designed to make the world of electronics more accessible. In addition to over 2,000 open source components and widgets, SparkFun offers curriculum, training and online tutorials designed to help demystify the wonderful world of embedded electronics. We're here to help you start something.

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