



## TFMini - Micro LiDAR Module (Qwiic)

SEN-14786

The TFMini is a ToF (Time of Flight) LiDAR sensor capable of measuring the distance to an object as close as 30 centimeters and as far as 12 meters! As with all LiDAR sensors, your effective detection distance will vary depending on lighting conditions and the reflectivity of your target object, but what makes this sensor special is its size. Measuring only 42x15x16mm, the TFMini allows you to integrate LiDAR into applications traditionally reserved for smaller sensors such as the SHARP GP-series infrared rangefinders. Because this sensor is now I<sup>2</sup>C connecting multiple sensors is now possible. Over 100 sensors can be connected but note that each sensor will require approximately 800mA so size your power supply accordingly.

This version of the TFMini is even easier to use thanks to the addition of the included Boost Board making this micro LiDAR Module capable of connecting to SparkFun's Qwiic Connect system! The TFMini comes with a cable that connects the LiDAR module to the boost board and another that connects them to the Qwiic system. If you are looking to use a breadboard with your TFMini we recommend picking up a [Qwiic Adapter](#) to hook you up.

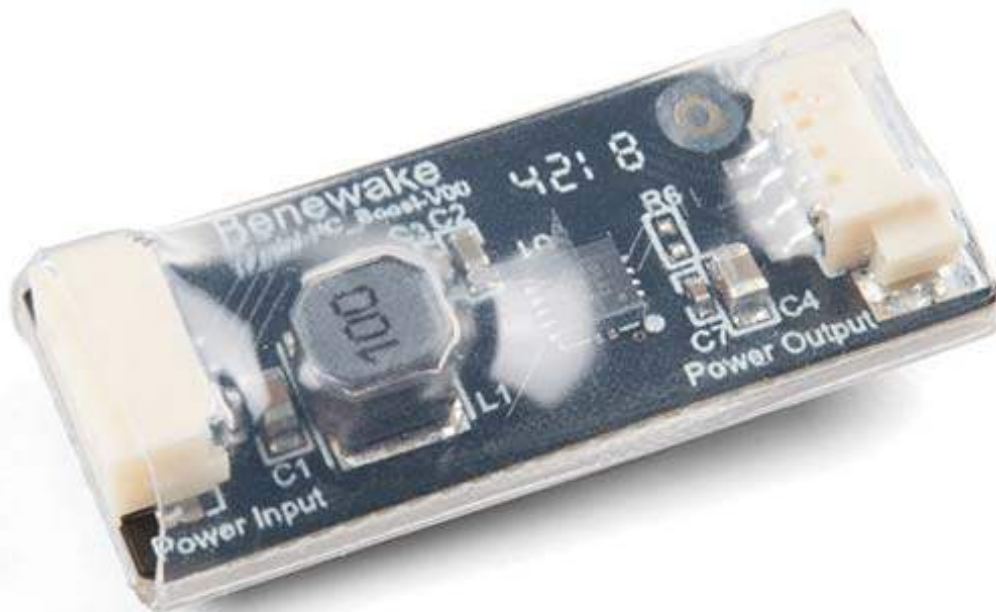
**Important:** This product does not use laser light for ranging. Instead it contains an LED and optics. Many such systems are being marketed under the name "LiDAR," although it may be more appropriate to think of this device as a "Time-of-Flight Infrared Rangefinder". It differs significantly from traditional IR rangefinders in that it uses ToF to determine range and not triangulation — as is performed by the Sharp GP-series devices.

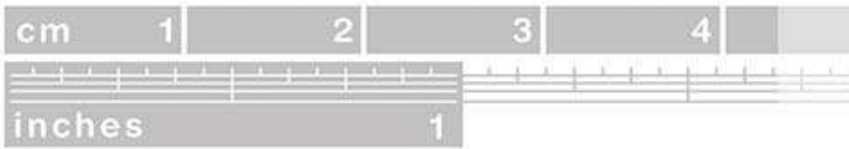
#### INCLUDES

- 1x TFMMini - Micro LiDAR Module
- 1x Boost Board
- 2x Hookup Wire

#### FEATURES

- Resolution: 1cm
- Minimum Detected Object Size at 2m: 20mm
- Operating Wavelength: 850nm
- Signal Acceptance Angle: 2.3°
- Default I<sup>2</sup>C Address: 0x10





<https://www.sparkfun.com/products/14786> 11-12-18