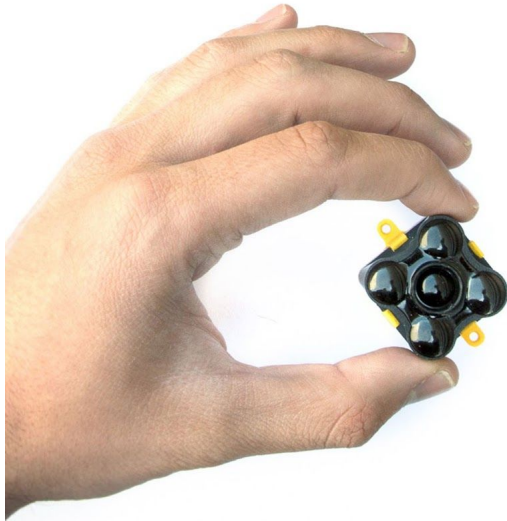


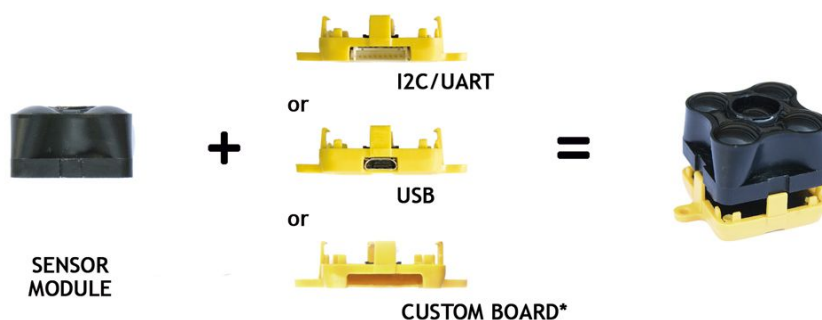
TeraRanger Evo

by TERABEE 



- **60 meter range**
LED technology
- **Plug & Play**
- **Small & Lightweight**
From 9g
- **Update Rate**
Up to 240Hz
- **CE Certified**
- **Option for Custom Interfaces**

TeraRanger Evo is the long-range Time-of-Flight distance sensor of the TeraRanger product family. It provides calibrated distance readings in millimetres and has a range up to 60m, whilst remaining lightweight and small! Instead of laser, TeraRanger Evo uses LED technology. One advantage of this is that it enables the sensor to have a “Field of View” so that, rather than measuring distance based on a very small point of light, the sensor measures over an area. At 1m distance the area is approximately 3cm by 3cm. At 10m it is approximately 30cm by 30cm, increasing linearly with range. For many applications this is a significant advantage and provides a more appropriate and stable datastream. Examples include drone flight over vegetation, a robot navigating close to a slatted fence, or irregular shaped objects being detected at high speed. In addition, the sensor has a unique two-part design, as shown below.



* WiFi, Bluetooth, LoRa/Sigfox, Ethernet, RS485, Profibus, CAN, etc on demand

There is an opto-electronic sensing device (black module, 9g) and a choice of backboard (yellow module, 3g), which simply plugs in to provide communications and to manage different power supplies, without the need for adaptors, converters or complex wiring. You simply chose the backboard that best suits your application and preferred communications protocol!

USB and I2C/UART backboards are available, but custom backboards can also be made to support specific applications. Drivers for ROS (Robot Operating System) and popular drone flight controllers are also in development or available, adding to the plug and play convenience. The sensor is eye-safe and CE certified.

Technical Specifications:

	TeraRanger Evo
Principle:	Infrared Time-of-Flight (ToF)
Range:	*0.5m up to 60m
Update Rate:	Up to 240 readings per second
Output Resolution:	0.5cm below 14m, 2cm from 14m
Accuracy:	±6cm or better in the first 14m, 1.5% above 14m
Field of view:	Approx. 2°
Supply voltage:	5V DC +/-5%
Supply current (min-max):	90mA - 330mA
Interfaces:	USB 2.0 Micro-B
	UART, +3.3V level, 115200,8,N,1.
	I2C, +3.3V level, 400kHz
Connectors:	Single 9 pin Hirose DF13
	Micro USB
Weight:	9g (sensor) + 3g (backboard)
Dimensions:	Approx. 29x29x22mm (sensor + backboard)
Eye safety:	Yes (CE certified)

**Please note maximum range will vary according to operating environment, surface reflectivity, direct sunlight and other variables.*

In the box:



TeraRanger Evo + USB backboard:

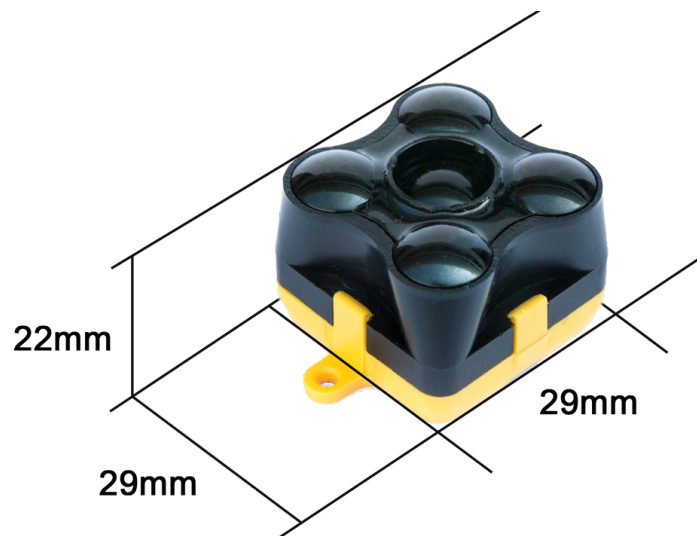
OR

TeraRanger Evo + I2C/UART backboard:

- TeraRanger Evo
- USB backboard
- Micro USB cable (50cm)

- TeraRanger Evo
- I2C/UART backboard
- 9Pin DF13 Open-ended cable

Dimensions :



The TeraRanger Evo can be purchased via our online store at:

<http://www.teraranger.com/product/teraranger-evo/>