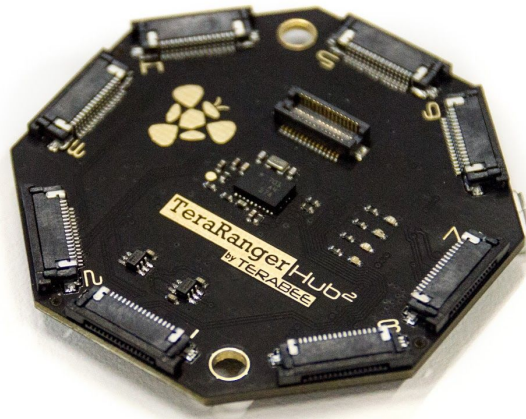


TeraRanger Hub Evo

by TERABEE 



TeraRanger Hub Evo is a **compact and lightweight (13g)** board that enables you to connect up to 8 TeraRanger Evo distance sensors and stream **distance data in millimeters via USB or (optional accessory required) UART interfaces**. Readings from each sensor can be synchronized to **avoid cross-talk** making it super easy to setup ‘plug and play’ **sensor arrays!** It is the ideal solution for **selective point cloud creation and rapid prototyping** of multi-sensor configurations. In addition, an **onboard Inertial Measurement Unit (IMU)** provides data on the hub’s spatial orientation.

Using the optional UART for Hub Evo accessory, users can connect to the Hub Evo to stream distance data via **UART communication protocol**. The accessory also provides an interface to control an **intelligent multi-colored LED light source** to create a red, orange, green visual-aid when navigating close to hazards.

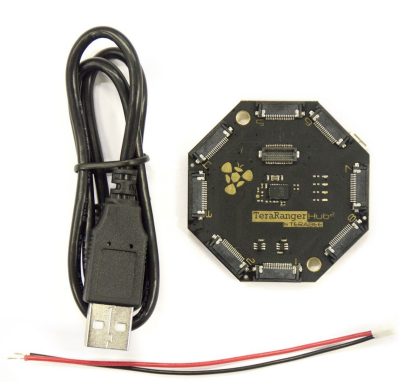
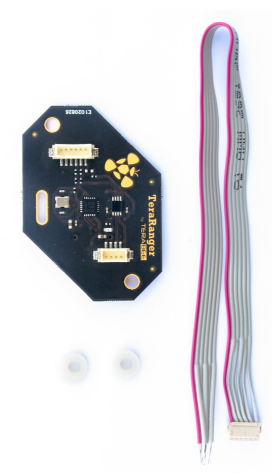
A **Graphical User Interface (GUI)** is available for download and provides easy visualization of sensor readings for demonstrations and testing purposes. **Drivers for ROS (Robot Operating System)** are also available, adding to the plug and play convenience!

Just some of the many **use cases** for the Hub Evo include: robot navigation and collision avoidance; point cloud generation; presence, proximity and position detection; object and people counting; speed and velocity sensing.

Technical Specifications:

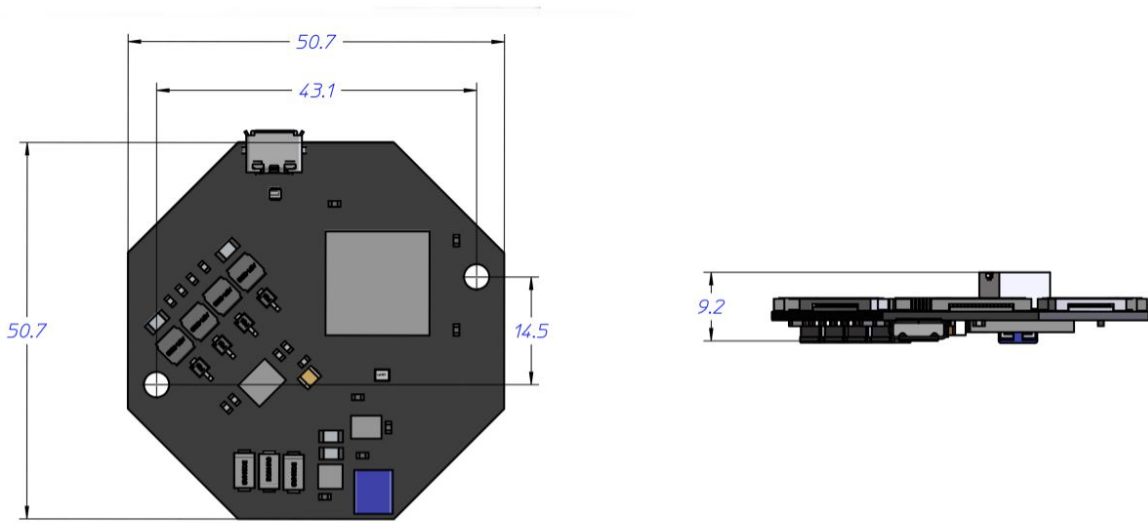
	TeraRanger Hub Evo	UART for Hub Evo (accessory)
Dimensions:	∅ 55mm x 9.2mm (H)	51mm x 36mm x 9mm (H)
Weight:	13g	7g
Mounting:	2 x M3 holes	2 x M3 holes
Supply voltage:	12V DC recommended	Powered by Hub Evo
Supply current:	25mA (plus consumption of each TeraRanger Evo sensor)	Powered by Hub Evo
Interfaces:	USB 2.0 Micro-B	UART, +3,3V level, 921600, 8, N, 1
		WS2812B LED serial control output
Connectors:	Micro USB	6pin Hirose DF13
	Proprietary extension connector	4pin Hirose DF13
Onboard IMU:	Bosch BN055	-
Update Rate modes:	50Hz; 100Hz; 250Hz; 500Hz; 600Hz ASAP	50Hz; 100Hz; 250Hz; 500Hz; 600Hz ASAP
Embedded Processing Unit:	ARM Cortex-M7 32-bit RISC core	-
Compatible with:	TeraRanger Evo distance sensors	TeraRanger Hub Evo

In the box:

TeraRanger Hub Evo	UART for Hub Evo (accessory)
	
<ol style="list-style-type: none"> 1. TeraRanger Hub Evo 2. micro-USB cable (50cm) 3. Power cable with open ends (10cm) 	<ol style="list-style-type: none"> 1. UART for Hub Evo 2. DF13 6pin to open ended cable (22cm) 3. M3 x 3mm spacers

Dimensions:

TeraRanger Hub Evo



UART for Hub Evo (accessory)

