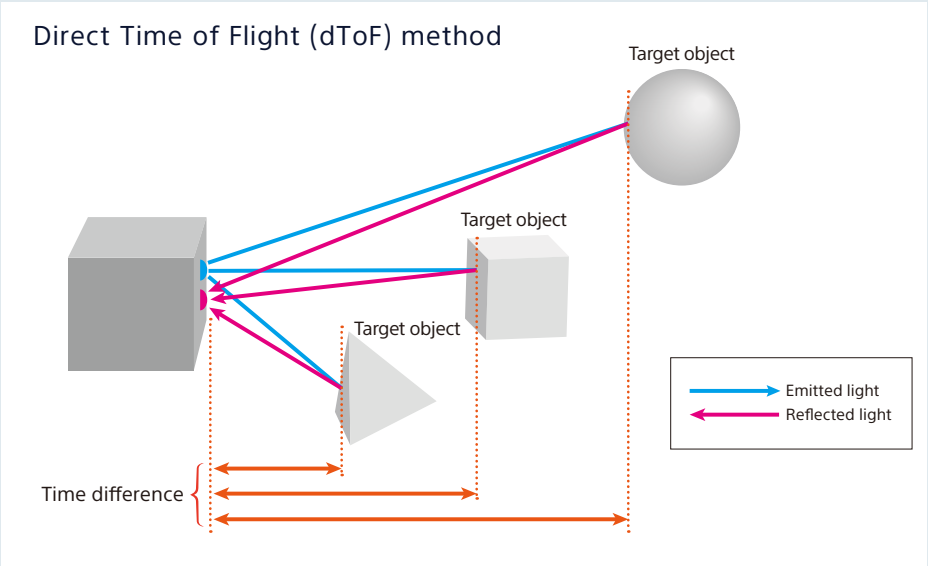


Direct Time of Flight (dToF) method

A ranging method that calculates distance by measuring the time it takes for light to be reflected back from an object.

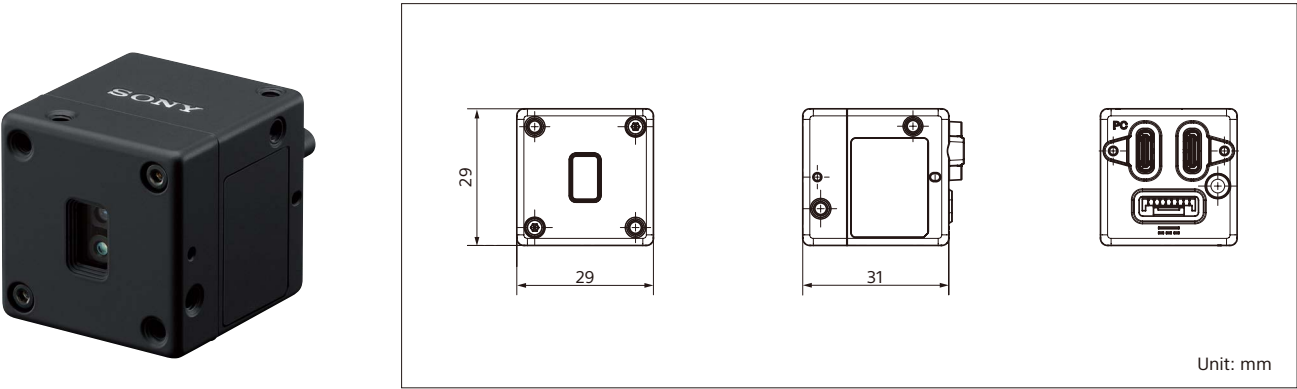


A LiDAR depth sensor, coming with the great ranging measurement capability as well as the world's smallest and lightest*¹ housing, which makes it mountable on robots and drones.

Adopting the "Direct Time of Flight (dToF) method," which delivers highly accurate measurement, distance resolution, and measuring range.

- High Measurement Accuracy and Distance Resolution
- Long Measurement Range
- Compact, Lightweight, and Robust Housing

External Dimensions



Specifications

Features	Specifications
HFoV	30° or more * ²
Maximum measurement range @15 fps, 50% reflectivity, center	Indoor: 40 meters* ² Outdoor: 20 meters* ²
Measurement accuracy @10 m	Indoor/Outdoor: ±5 cm* ²
Distance resolution	0.25 mm
Frame rate	30 fps 15 fps @ Maximum ranging distance mode
Number of ranging points	576 (24x24)
Laser wavelength	940 nm
Dimensions	W29 x H29 x D31 mm (excluding protrusions)* ²
Weight	50 g or less* ²

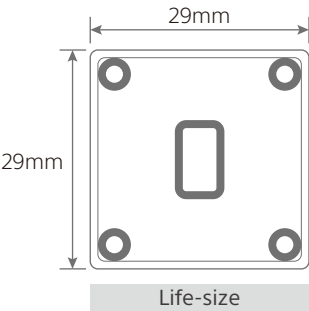
*² These figures are provisional and may differ from final specifications.

Provisional version

LiDAR Depth Sensor

NEW

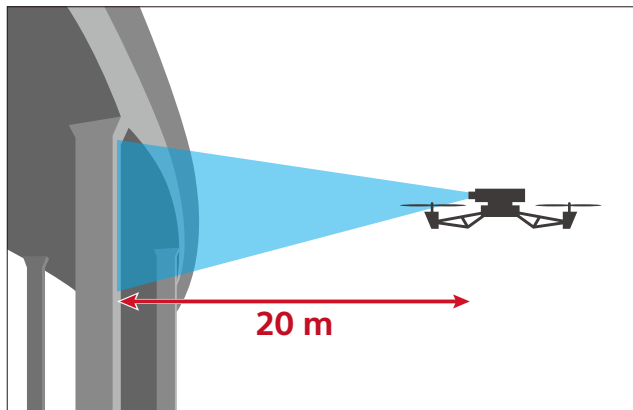
AS-DT1



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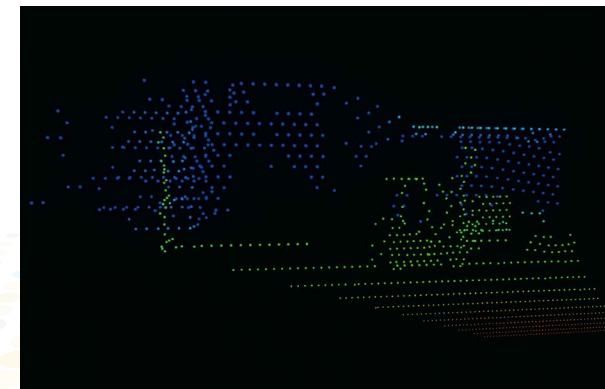
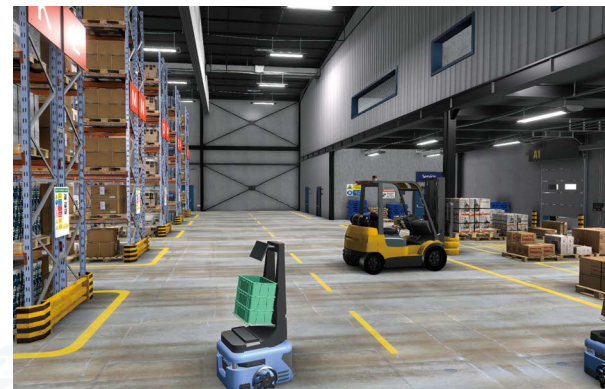
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is ranging measurement is highly accurate; even from long distances of 40 meters indoors and 20 meters*² outdoors on a clear summer day (assuming 100,000 lux). This measurement accuracy, from a distance even outdoors, makes it very useful to measure distances to objects that are difficult for people to approach, such as bridges, expressways, and dams.



*3 An electronic device (diode) that achieves high sensitivity by utilizing "avalanche multiplication," which amplifies electrons like a snow avalanche from a single incident photon.

An example of ranging measurement data displayed as point cloud data (an image for illustration purposes only)



Far ● ● ● ● ● ● ● Near

*5 Excluding protrusions.



A large concrete dam with multiple spillways is shown from a low angle, looking up. A small drone is flying in the clear blue sky in front of the dam. The dam's structure is made of light-colored concrete with visible vertical joints and some water stains. The sky is a solid, bright blue.