



Mech-Eye LSR S

Outdoor Industrial 3D Laser Camera

High accuracy, small size, and strong resistance to ambient light
Made for medium-range outdoor applications

Strong Resistance to Ambient Light

High-quality 3D imaging under challenging outdoor light conditions of > 120,000 lx.

Wide Range of Operating Temperature

Equipped with large heat-conducting backplane, better copes with harsh outdoor temperature conditions.

IP67 Protection Rating

Designed to tolerate the most challenging industrial environments with dust and humidity.

Easy to Use & Deploy

Compact and lightweight, ideal for robot-mounted applications.

Quick Specs

Recommended working distance: 500–1500 mm

Near FOV: 480 × 360 mm @ 0.5 m

Far FOV: 1500 × 1200 mm @ 1.5 m

Depth map resolution: 2048 × 1536

RGB resolution: 4000 × 3000/2000 × 1500

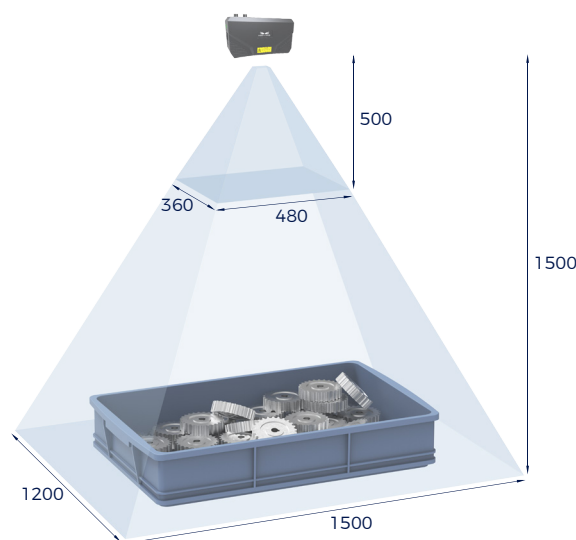
Point Z-value repeatability (σ)^[1]: 0.2 mm @ 1.5 m

Measurement accuracy (VDI/VDE)^[2]: 1.0 mm @ 1.5 m

Typical capture time: 0.5–0.9 s

Dimensions: Approx. 228 × 77 × 126 mm

Field of view (mm)



Baseline: Approx. 140 mm

Weight: Approx. 1.9 kg

Operating temperature: -10–45°C

Communication interface: Gigabit Ethernet

Light source: Red laser (638 nm, Class 2)

Input: 24 VDC, 3.75 A

Safety and EMC: CE/FCC/VCCI/UKCA/KC/ISED/NRTL

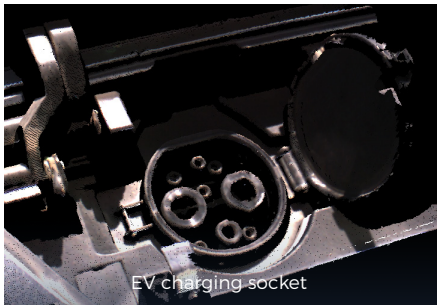
IP rating: IP67

[1] One standard deviation of 100 Z-value measurements of the same point. Measurement target was a ceramic plate.

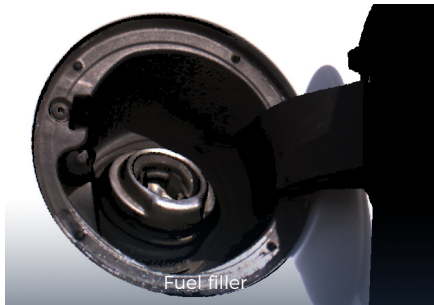
[2] According to VDI/VDE 2634 Part II.

Point Cloud Examples

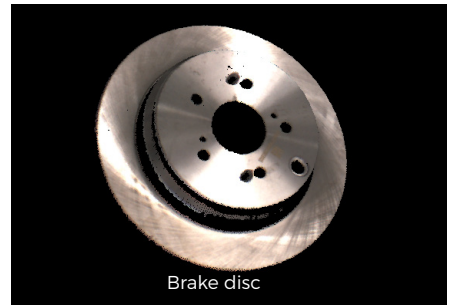
With laser structured light technology and advanced optical design, Mech-Eye LSR S has extraordinarily strong resistance to ambient light. It can generate complete, detailed, and accurate point cloud data of various materials such as metal, plastic, and wood under challenging outdoor light conditions of $>120,000$ lx.



EV charging-socket



Fuel filler



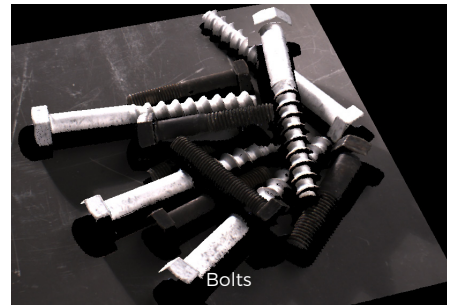
Brake disc



Crankshaft



Steering knuckles



Bolts

▲ Point clouds obtained under light conditions of $>120,000$ lx

Applications

- Typical scenarios: Designed for outdoor scenarios with direct sunlight, such as ports, docks, and outdoor buildings, as well as indoor scenarios with interference from strong sunlight, such as manufacturing workshops, factories, and warehouses with large floor-to-ceiling windows and skylights.
- Key applications: Used in various outdoor scenarios, including refueling, charging, port container lock removal, and construction drilling.

