

Mech-Eye LSR L Industrial 3D Camera



MTBF (Mean Time Between Failures): $\geq 40,000$ hours

- High accuracy
- Large FOV
- Ambient light resistance
- Ideal for robotic guidance



IP65 water & dust proof



High stability



Fast scanning



High cost performance



Superb usability

Specification

Recommended working distance: 1200–3000 mm

Near FOV: 1200 × 1000 mm @ 1.2 m

Far FOV: 3000 × 2400 mm @ 3.0 m

Depth map resolution: 2048 × 1536

RGB resolution: 4000 × 3000/2000 × 1500

Point Z-value repeatability (σ)^[1]: 0.5 mm @ 3.0 m

Measurement accuracy (VDI/VDE)^[2]: 1.0 mm @ 3.0 m

Typical capture time: 0.5–0.9 s

Image sensor: Sony CMOS for high-end machine vision

Dimensions: Approx. 459 × 77 × 86 mm

Baseline: Approx. 380 mm

Weight: Approx. 2.9 kg

Operating temperature: -10–45°C

Communication interface: Gigabit Ethernet

Input: 24 V DC, 3.75 A

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

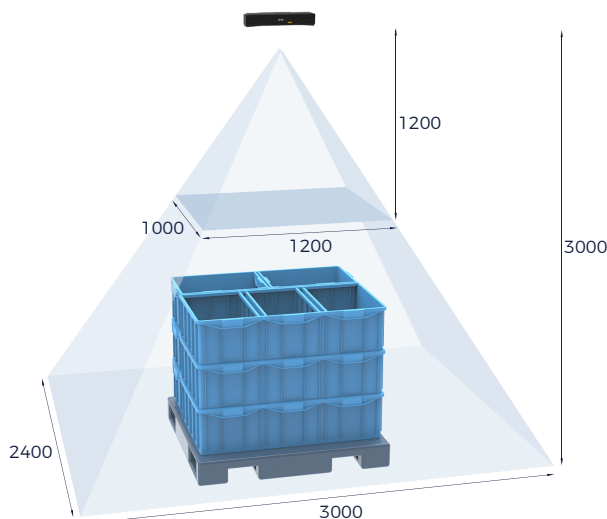
IP rating: IP65

Cooling: Passive

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

MTBF (Mean Time Between Failures) : $\geq 40,000$ hours

Field of View (mm)

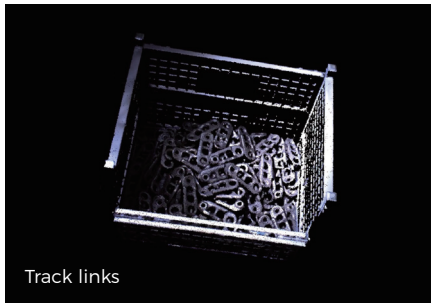


[1] One standard deviation of 100 Z-value measurements of the same point. The measurement target was a ceramic plate.

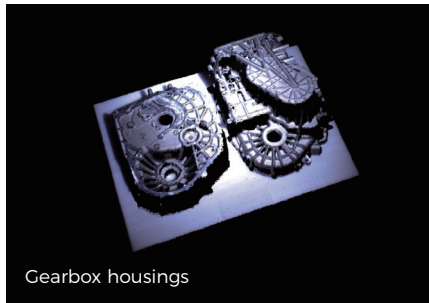
[2] According to VDI/VDE 2634 Part II.

Point Clouds

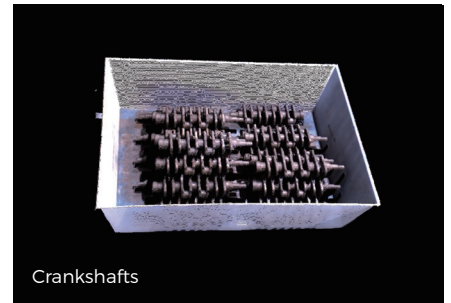
- The Mech-Eye LSR L, enhanced for superior resistance to ambient light, can generate comprehensive, precise, and detailed point clouds of targets even under demanding lighting conditions of $> 30,000$ lx.
- The new Mech-Eye LSR L can output accurate and high-quality colored 3D point clouds of multicolored cartons, sacks, and more.
- With advanced optical algorithms and technologies, Mech-Eye LSR L outputs complete 3D images of highly-reflective objects.



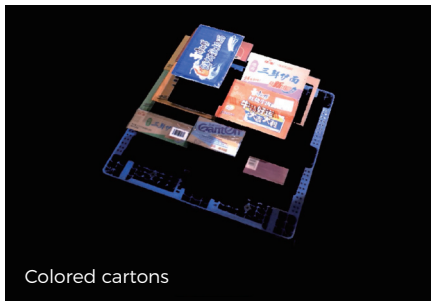
Track links



Gearbox housings



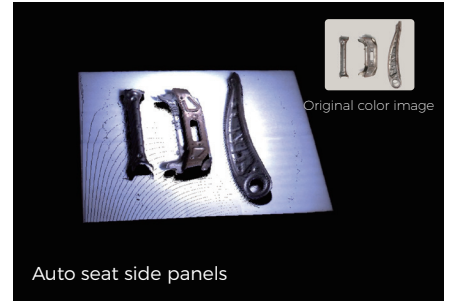
Crankshafts



Colored cartons



Colored sacks



Auto seat side panels

Point clouds captured by Mech-Eye LSR L under challenging light conditions of $>30,000$ lx @ 2.0 m

Broad Application Coverage

- Mech-Eye LSR is ideal for factory-floor applications with strong ambient light interference, minimizing the need for shading facilities.



- Mech-Eye LSR has been widely used in a wide range of applications, including bin picking, machine tending, localization, welding, etc.

