Mech-Eye LSR XL-GL Industrial 3D Camera

- Ultra-high resolution
- Extensive scanning range
- Exceptional anti-reflection capability
- Robust resistance to ambient light

Greater point cloud precision

Robust optical algorithms reduce fluctuating point clouds along the Z-axis to enhance data accuracy when the camera scans objects at a long distance.

Ultra-high resolution with 5 million pixels

Create high-resolution point clouds, clearly presenting fine features such as surface deformations, pits, and protrusions.

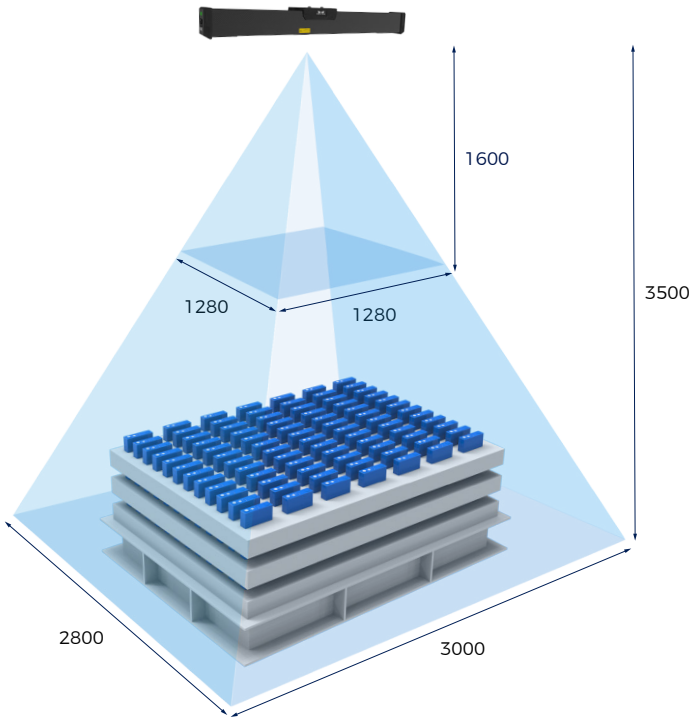
Exceptional resistance to reflection and ambient light

Self-developed laser structured light technology and multiple scan modes enable clear imaging even in the presence of strong ambient light and intense reflection.

Super-large scanning range

A large field of view and deep depth of field make it possible to cover a wider scanning range and handle deep bins and oversized pallets in applications at long working distances.

Field of View (mm)



Specifications

Working distance: 1600–3500 mm

Near FOV: 1280 × 1280 mm @ 1.6 m

Far FOV: 3000 × 2800 mm @ 3.5 m

Depth map resolution: 2448 × 2040

RGB resolution: 4000 × 3000/2000 × 1500

Point Z-value repeatability (σ)[1]: 0.2 mm @ 3.0 m

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

Typical capture time: 0.6-1.1 s

Dimensions: 942 × 88 × 116 mm

Baseline: 800 mm

Weight: 4.5 kg

Operating temperature: -10-45°C

Communication interface: Gigabit Ethernet

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

Input: 24 V DC, 3.75 A

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

IP rating: IP65

Cooling: Passive

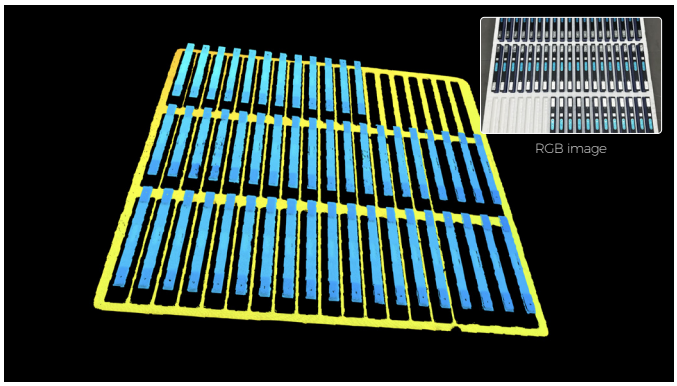
Mean Time Between Failures (MTBF): ≥ 100,000 hours

Specifications are subject to the official website.

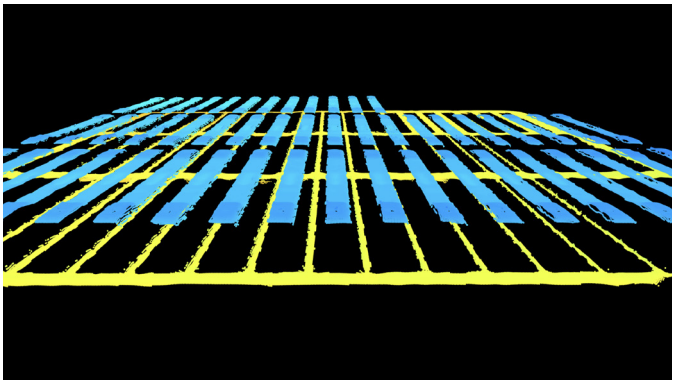
[1] One standard deviation of 100 Z-value measurements of the same point. Measurement target was a ceramic plate.

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

Complete and Detailed Point Clouds



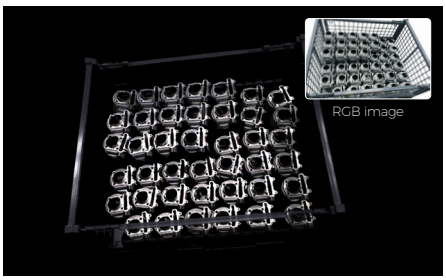
Thanks to its ultra-wide FOV and depth of field, the camera can capture complete 3D point clouds of battery cells on the entire layer (1200 × 1200 mm).



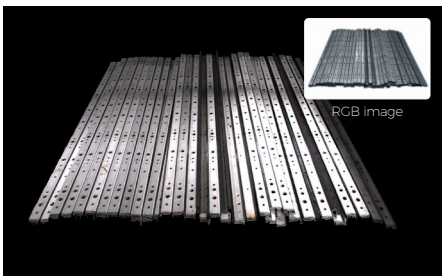
Thanks to the high resolution, the camera is capable of capturing detailed, accurate 3D data of battery cells even at a distance of 3 meters.

▲ Mech-Eye LSR XL-GL @ 3 m, color rendered by height

Highly reflective brake discs



Complex-structured engine blocks



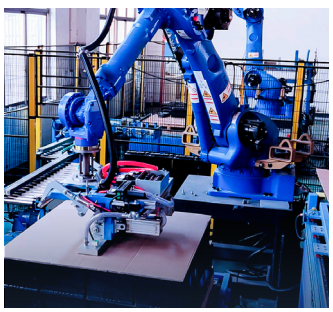
Reflective sheet metal parts

▲ Mech-Eye LSR XL-GL @ 3 m

For High-Precision Applications at Long Working Distances

Suitable for bin picking, machine tending, and steel plate sorting in automotive, metal & machining, logistics, EV battery, home appliances, and more industries.

Bin picking



Large object depalletizing

Unloading of stamping parts

Unloading and sorting of steel plates

MECH MIND

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