STEREOVIS M07 – High-Precision Smart 3D Vision

Compact, Embedded Structured Light 3D Camera

Overview

The Stereovis M07 is a compact, ultra-precise embedded 3D vision system engineered for high-speed robotic guidance, inspection, and precision handling. Driven by the NVIDIA Jetson Nano, it performs full onboard 3D reconstruction and supports AI-powered decision-making at the edge. Its tight field of view and high-resolution output make it the perfect tool for tasks requiring millimeter- to sub-millimeter accuracy — all in a standalone device with zero need for an external PC.

Key Features

- Embedded NVIDIA Jetson Nano for onboard AI and 3D computation
- ⚡ Ultra-fast scanning – only 0.2 s per capture
- Precision-focused – Z-resolution down to 0.005 mm
- Compact and IP65 for seamless robot cell integration
- Ideal for small object handling and inspection
- Gigabit Ethernet, full SDK (C++ / C# / Python)
- Compatible with Windows, Linux, and ROS
- Structured blue DLP projection – great for dark/rough surfaces

Technical Specifications

Parameter	Value
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Compute Unit	NVIDIA Jetson Nano (Quad-core ARM)
Sensor Resolution	2.8 MP

Scan Time	0.2 seconds
Working Distance	230 – 450 mm
Near FOV (W×H)	180 × 100 mm @230 mm
Far FOV (W×H)	330 × 190 mm @450 mm
Depth Accuracy (Z)	0.005 – 0.01 mm
XY Point Resolution	0.09 – 0.17 mm
Projection	Blue DLP structured light
Output Interface	Gigabit Ethernet
SDK / Dev Support	Windows / Ubuntu / ROS
Enclosure Rating	IP65
Power Input	24V / 3A
Dimensions / Weight	143 × 135 × 59 mm / 1.3 kg

Ideal Use Cases

- Precision bin picking – small metal or plastic components
- Assembly line QC – dimension checking, surface flatness
- Screw, nut, or micro-part detection for pick-and-place
- Fine robotic guidance in confined workspaces
- Lab and electronics automation – pipette, component, or vial alignment
- Machine tending – picking/placing parts with narrow tolerances
- AI-driven sorting – small parts based on shape, size, or condition
- Aerospace & defense – detecting subtle form defects in complex assemblies

Why Choose This Product?

- ✔ Jetson edge intelligence in an ultra-compact body
- ✔ Class-leading Z-accuracy in its range
- ✔ Self-contained, fast, industrial — built for factory floor reality
- ✔ Rapid deployment with SDKs, plug-ins, and full documentation
- ✔ Lower TCO than traditional high-end metrology 3D systems

Included in the Box

- Stereovis M07 smart 3D camera
- 24V/3A industrial power adapter
- Ethernet/data cable
- Mounting & quick start documentation
- Full SDK + developer access (API/ROS)

Contact & Support

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Stereovis – Precision. Speed. Simplicity.