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# Product Description – Long Version

**PhoXi 3D Scanner Gen 3**

Best Suited For The Most Accuracy-Sensitive Industrial Tasks

The PhoXi 3D Scanner Gen3 delivers industry-leading 3D point cloud quality with built-in color imaging—perfect for high-precision inspection, robotic guidance, and digital twin creation in automotive, manufacturing and logistics. Its advanced blue laser technology captures fine details and challenging surfaces like glossy metal, black plastic, or sharp edges, even in tough environments. Designed for detailed inspection as well as large objects and long ranges, the scanner enables accurate detection and inspection of everything from small parts to entire underbodies.

**Performance Highlights:**

* 5.1 MP 3D scanning with up to 0.3 mm accuracy
* Integrated RGB camera up to 8MP color data
* Working range: 15 cm to 6 m (guaranteed precision up to 4 m)
* 20 dB extended dynamic range—no overexposure up close, no loss of detail at distance m
* Dual-scanner multiview with blue + red lasers—scan from multiple angles simultaneously without interference, reducing cycle time
* Zero Maintenance Downtime: With autonomous maintenance capabilities, the Gen3 eliminates the need for special marker patterns, physical access, or service calls.

**Designed for the Factory Floor:**

* Rugged IP65-rated housing for harsh environments: welding cells, bodyshop, assembly, foundries
* Lightweight carbon-fiber body (1.5 kg) for robot-mounted use
* Ambient Light Supression up to 100,000 lux for consistent results in bright or variable lighting
* Plug-and-play integration with GigE Vision, PoE, and intuitive setup via Settings Assistant
* Built-in onboard processing to reduce host system load and accelerate scan-to-action time

**Ideal for:**

**Automotive**

* Precision scanning for robot guidance in welding, gluing, or fastening operations
* Bin Picking - identify, pick, and install parts from bins—even in unstructured or variable environments.
* Machine Tending - load, unload, and inspect parts in CNC or injection molding cells, handling raw, unfinished, or variable workpieces
* Assembly Automation - Precisely identify, handle, and assemble components, even in unstructured environments.
* Part identification & Feature presence for error-free assembly and quality control.
* Digital twin generation for CAD comparison, traceability, and AI training

**Logistics**

* Measurement of parcel dimensions, position verification, and label presence inspection.
* High-rack pallet scanning in logistics automation
* Fast and precise tire picking and racking—streamlining high-volume automotive handling with zero errors
* Tote identification and depalletization automating high-volume logistics with unmatched speed and accuracy.
* Unstructured box shipment depalletiztion - handling mixed sizes, shapes, and orientations with robotic precision.

**Inspection**

* Gap and flush analysis in car assembly — ensuring seamless panel alignment and build quality.
* Deburring and post-cast inspection - defect detection and surface finishing with sub-millimetre accuracy.
* Part Inspection - submillimetre accuracy for inspecting complex geometries—detecting defects, verifying tolerances.
* Accurate dimensioning, gauging, and measurements ensure flawless quality control.

# Product Description – Short Version

**PhoXi 3D Scanner Gen3**  
**High-Precision 3D Scanning with Built-in Color Imaging**

The PhoXi 3D Scanner Gen3 delivers top-tier 3D point cloud quality and integrated color data for the most accuracy-sensitive industrial tasks. Powered by advanced blue laser technology, it captures fine details—even on glossy metal, black plastic, or translucent, making it ideal for robotic guidance, and digital twin creation in automotive, manufacturing, logistics, and inspection.

**Key Features:**

* 5.1 MP 3D scanning with up to 0.3 mm accuracy
* Integrated RGB camera (up to 8 MP)
* Wide working range: 15 cm to 6 m
* Dual-laser multiview scanning without interference
* Rugged IP65 housing, lightweight carbon-fiber body
* Zero-maintenance downtime, plug-and-play operation

**Perfect for:**

* High-precision inspection and quality control
* Robot guidance in welding, gluing, bin picking, machine tending
* Parcel dimensioning, tote identification, depalletization, label verification
* CAD comparison, digital twin creation, and AI training