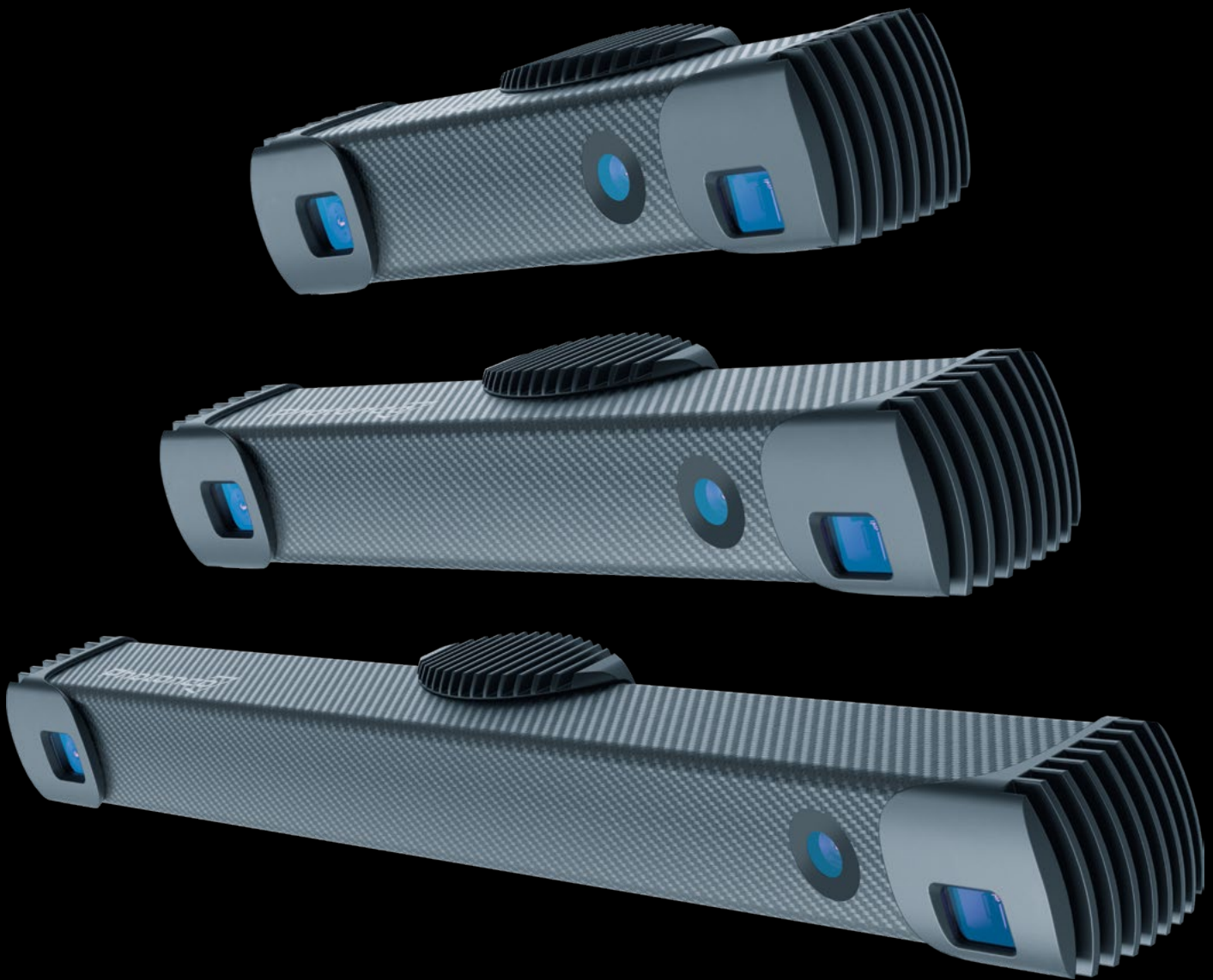




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**The New**

# **PhoXi 3D Scanner Gen3**

High-Res 3D Scanner With Blue Laser For Most Demanding Automation Tasks. Now In Color.

# Introducing Gen3: The World's Most Robust 3D Scanner Now With 2.5x Better Data Completeness



## Catch Defects, Cut Errors

Spot flaws others will miss with 60% more 3D data points. Gen3 enables AI inspection with ultra-clear scans for tighter quality control.

## Any Surface, No Challenges

Eliminate wasted time and rescans with up to 2.5x better 3D data completeness on complex objects and materials.

## Double The Speed

Scan simultaneously with both blue and red laser variants, operating in parallel with no projection interference.

## Top-Notch Color Data

A single device captures both 3D data and color texture simultaneously. The integrated RGB camera enables any color-based task.

## From Detail To Long-Range

From close-up inspection to long-range object detection, excelling in logistics tasks up to 6 m\* with enhanced dynamic range.

## Zero Maintenance Downtime

Say bye to special marker patterns or physical access to devices. Maintain your device in one click - no expert knowledge is needed.

# High-Accuracy 3D + Color: Smarter Robotic Vision

Instantly captures ultra-precise 3D geometry and full-color texture in a single scan—empowering robots to identify, localize, and manipulate even unfamiliar objects with confidence. Fusion of depth accuracy and RGB detail ensures unmatched scene perception, pinpoint grasp planning, and seamless adaptation to complex, real-world automation challenges.



## Best Suited For The Most Accuracy-Sensitive Industrial Tasks

- Inspection
- Bin Picking
- Depalletization
- Digital Twinning
- Machine Tending
- AI Inference

High-precision  
results with zero  
maintenance  
downtime



Capture **60% more**  
3D points



**Any lighting conditions** -  
even direct sunlight



Now **5.1 Mpix** scanning  
resolution



**8 Mpix** 2D RGB camera  
for rich colors



Cut exposure times by **10x**  
with **20 dB higher** dynamic  
range



Working in any distance  
from **0.3 m to 6 m\***

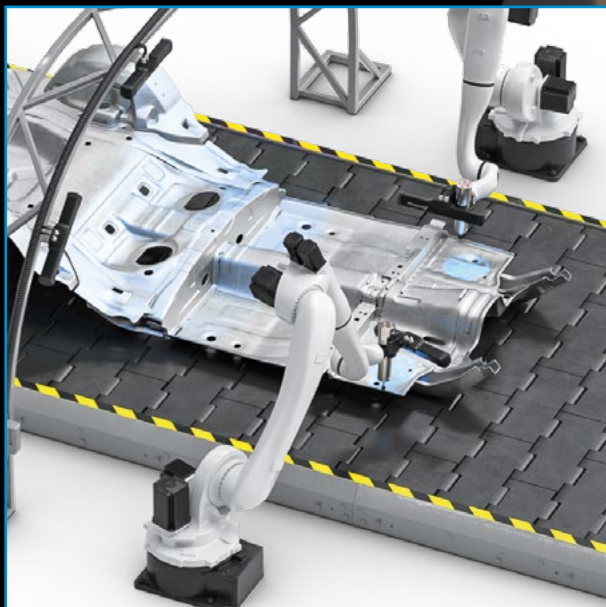


**Autonomous Maintenance:**  
**No marker patterns,**  
no hassle

\*Scanning accuracy is guaranteed within calibration distances up to 3780mm

# Superior Inspection With 60% Higher Point Cloud Resolution

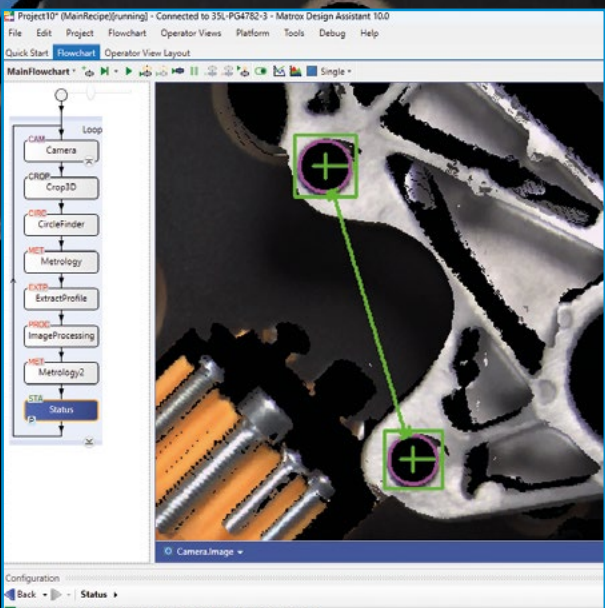
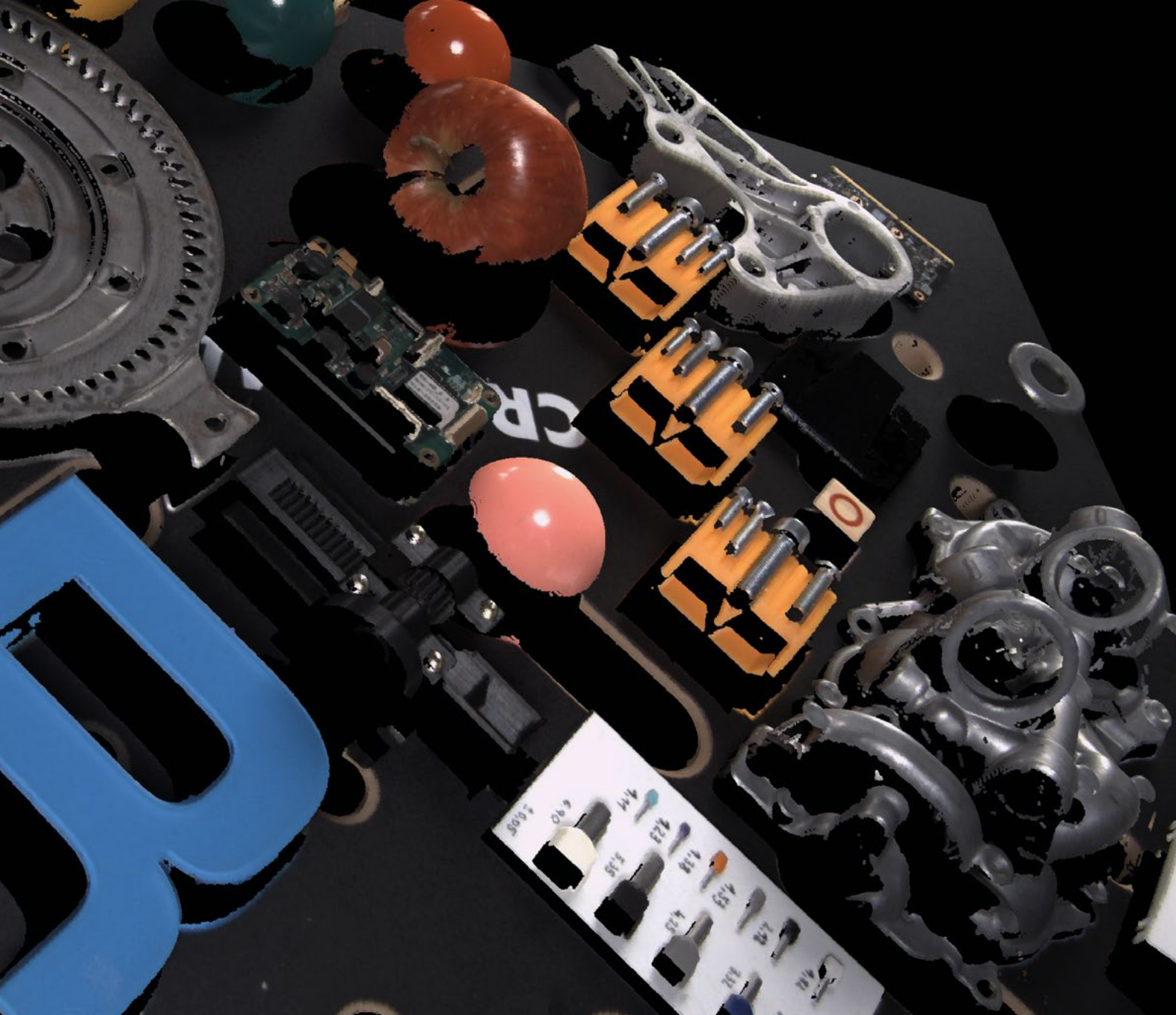
Never miss any defect again!  
See even the tiniest deviation with  
the industry's highest-resolution  
3D scanner. In the most complex  
scenarios.



Deburring and post-cast inspection - defect detection and surface finishing with sub-millimeter accuracy.



Gap and flush analysis in car assembly - ensuring seamless panel alignment and build quality.



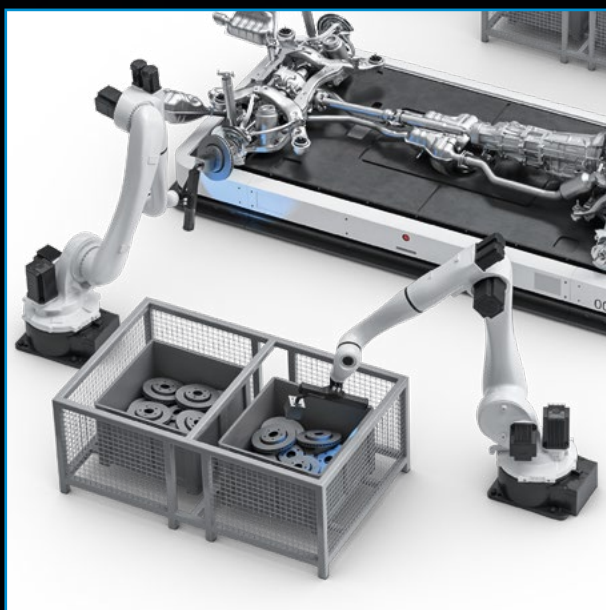
Accurate dimensioning, gauging, and measurements ensuring flawless quality control.



Measures parcel dimensions, verifies position, and inspects label presence.

# Robot Guidance For The Most Challenging Applications

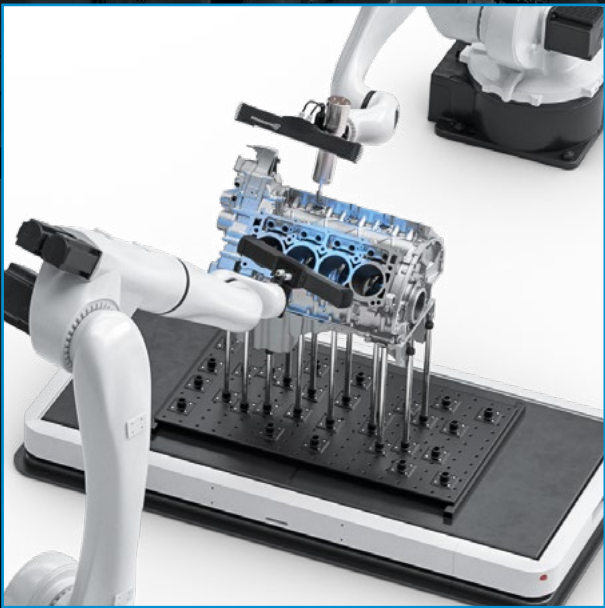
Master industry's most demanding automation challenges. From edge bin picking to machine tending and beyond - automate anything.



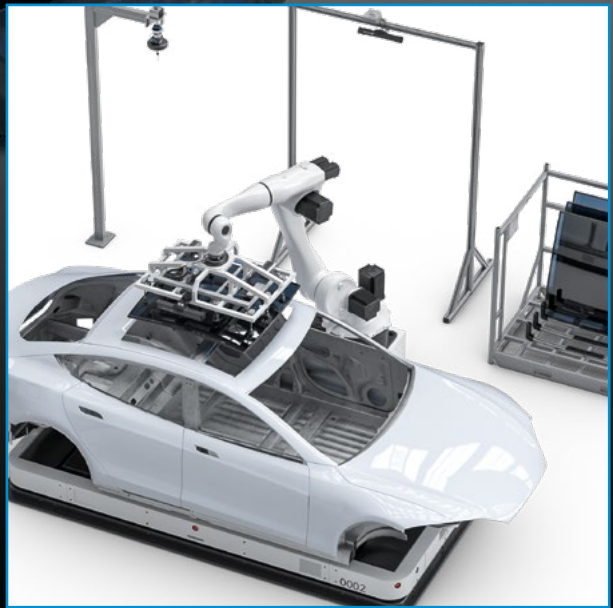
Bin Picking - identify, pick, and install parts from bins - even in unstructured or variable environments.



Machine tending - load, unload, and inspect parts in CNC or injection molding cells - handling raw, unfinished, or variable workpieces.



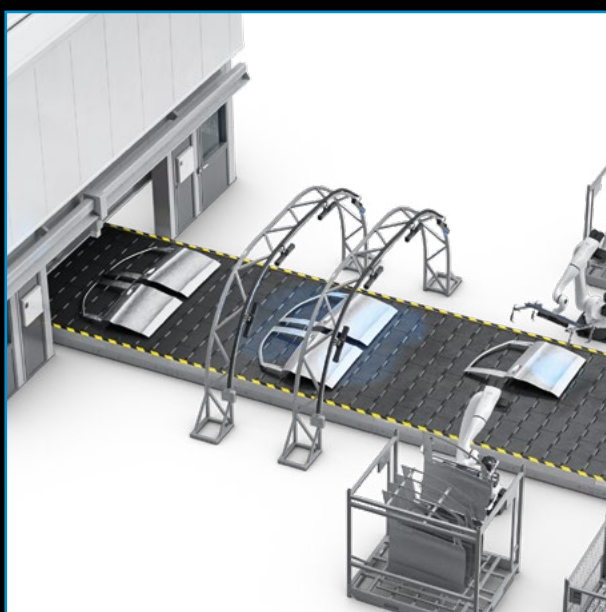
Part inspection - submillimeter accuracy for inspecting complex geometries - detecting defects, verifying tolerances, and ensuring quality control.



Assembly automation - precisely identify, handle, and assemble components - even in unstructured environments.

# Logistics-Ready: Long Distance Scanning Up To 6 m\*

Scan large bins, boxes, pallets, or items at long distances with robust accuracy thanks to high dynamic range. Even in difficult lighting.

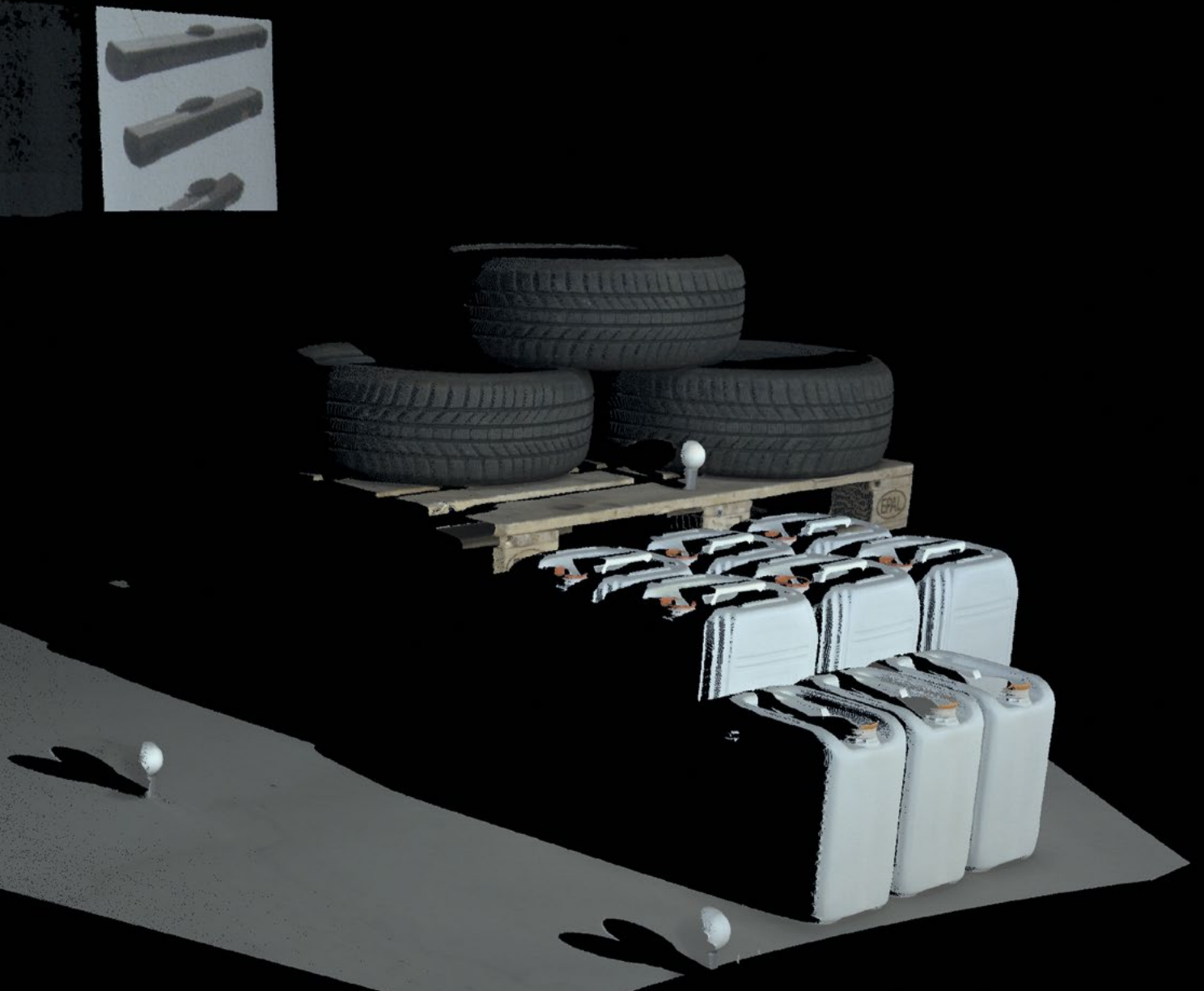


Part identification & feature presence for error-free assembly and quality control.



Fast and precise tire picking and racking - streamlining high-volume automotive handling with zero errors.

\*Scanning accuracy is guaranteed within calibration distances up to 3780mm



Tote identification and depalletization automating high-volume logistics with unmatched speed and accuracy.

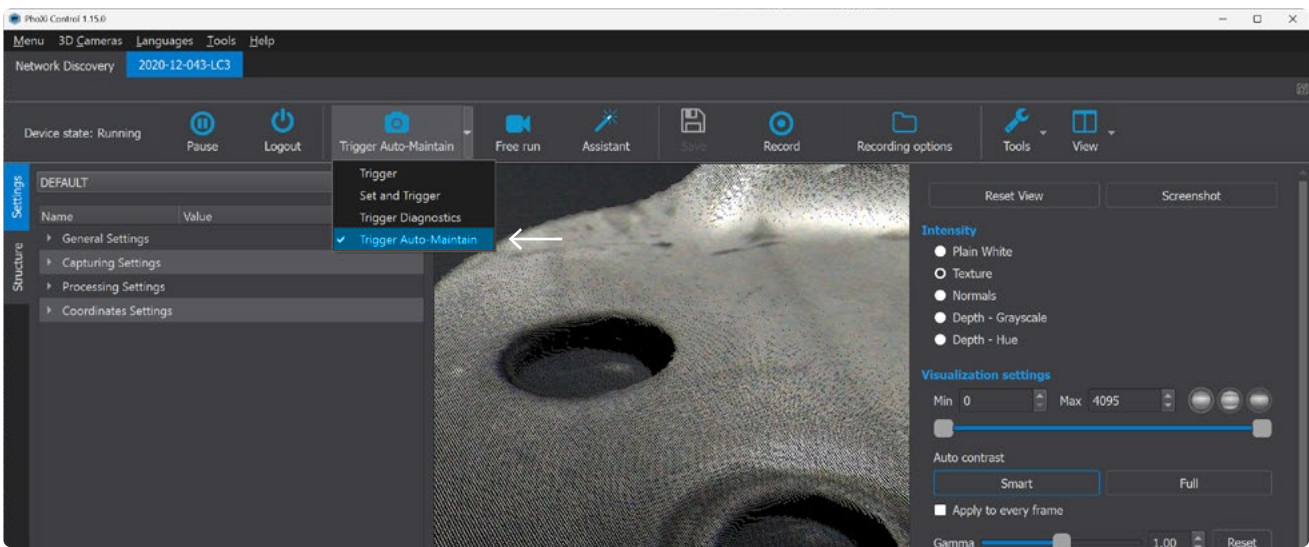


Unstructured box shipment depalletization - handling mixed sizes, shapes, and orientations with robotic precision.

# Zero Maintenance Downtime

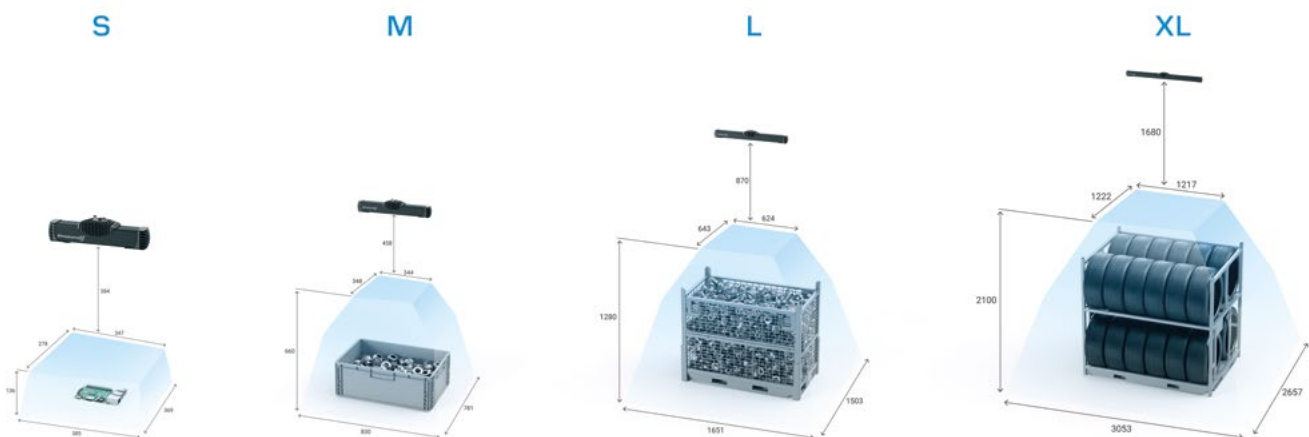
Forget everything you know about device maintenance. Say goodbye to tedious manual on-site procedures and the complexities of scanning special marker patterns.

Our groundbreaking Autonomous Maintenance, seamlessly integrated within our software suite, allows you to fine-tune intrinsic parameters of your [PhoXi 3D Scanner Gen3](#) effortlessly with a single click feature. Experience device maintenance as never seen before – just click, and it's done.



## Scanning Ranges To Fit Your Need

From hand-eye precision to large-scale scanning volumes - we have you covered. Pick the scanner size that best fits your application.

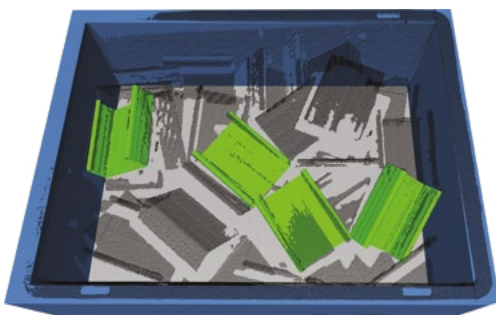


# Fastest MultiView On The Market

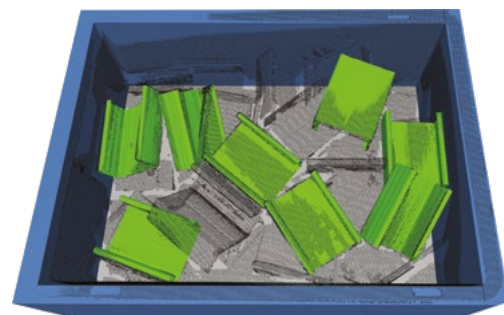
**The new Gen3 scanners come with both blue and red laser versions.**

Enhance your time-critical applications through simultaneous blue and red laser scanning with no interference. This advanced setup significantly boosts cycle times and data capture rates.

Whether free-running at full FPS for high-speed tasks like vehicle scanning, wood log measurement, or capturing snapshots with two devices simultaneously, this technology enhances 3D data completeness — leading to more accurate localization and higher success rates in demanding applications like Bin Picking and Digital Twinning.

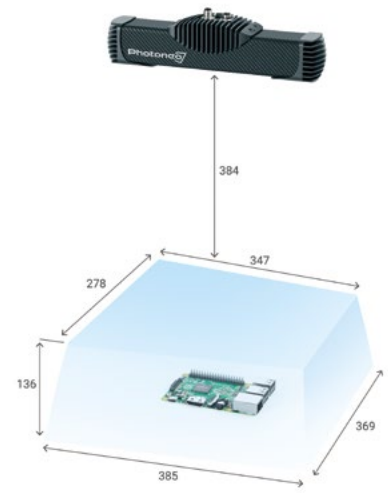


Single perspective 3D scan



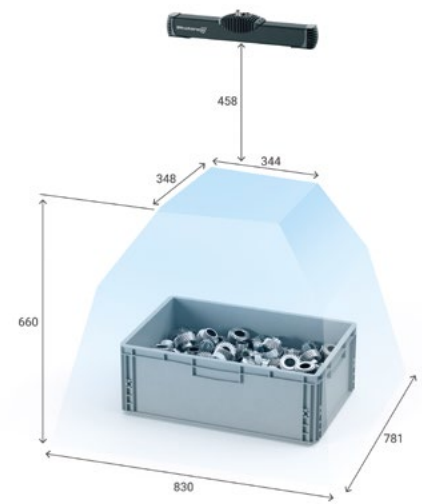
MultiView: Multi perspective 3D scan

# PhoXi 3D Scanner Gen3 (Blue) S



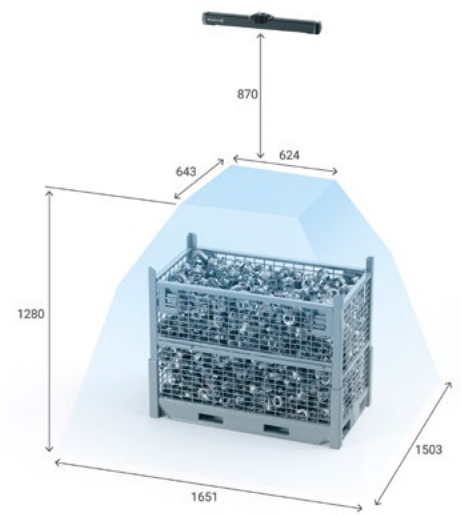
3D sensing technology	Structured Light		
Output data	3D points (x y z), Normals (x y z), Depth Map (z), Color Image, Texture (grayscale/RGB), Confidence (float)		
Depth map resolution	5.1 Mpix (2472 x 2064)		
Color image resolution	Up to 8 Mpix		
Scanning range (near - sweet - far)	384 - 442 - 520 mm		
Scanning area (sweet spot)	364 x 317 mm		
Scanning distance (mm)	Near	Sweet	Far
	384	442	520
Relative distance accuracy (%)	1,25	1,25	1,25
Global planarity (mm)	0,2	0,22	0,25
Local planarity (mm)	0,15	0,16	0,18
Temporal noise (mm)	0,03	0,03	0,04
Point-to-point distance (mm)	0,13	0,16	0,18
Acquisition time	From 190 ms		
Scanning time	From 250 ms		
Dimensions	319 x 68 x 86 mm		
Baseline	230.0 mm		
Weight	900 g		
Temperature working range	Full: 0 - 40 °C Optimal: 22 - 25 °C		
Projection unit laser color	Blue		
Power	PoE or 24V		
Processing unit	NVIDIA Jetson TX2		
Data connection	1 Gbit Ethernet		
IP rating	IP65		

# PhoXi 3DScanner Gen3 (Blue) M



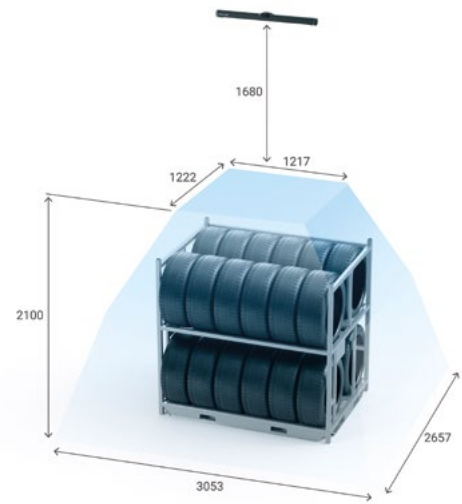
3D sensing technology	Structured Light		
Output data	3D points (x y z), Normals (x y z), Depth Map (z), Color Image, Texture (grayscale/RGB), Confidence (float)		
Depth map resolution	5.1 Mpix (2472 x 2064)		
Color image resolution	Up to 8 Mpix		
Scanning range (near - sweet - far)	458 - 655 - 1118 mm		
Scanning area (sweet spot)	623 x 467 mm		
Scanning distance (mm)	Near	Sweet	Far
	458	655	1118
Relative distance accuracy (%)	1,25	1,25	1,25
Global planarity (mm)	0,25	0,4	0,75
Local planarity (mm)	0,1	0,16	0,3
Temporal noise (mm)	0,02	0,03	0,07
Point-to-point distance (mm)	0,16	0,23	0,39
Acquisition time	From 190 ms		
Scanning time	From 250 ms		
Dimensions	439 x 68 x 86 mm		
Baseline	350.0 mm		
Weight	950 g		
Temperature working range	Full: 0 - 40 °C Optimal: 22 - 25 °C		
Projection unit laser color	Blue		
Power	PoE or 24V		
Processing unit	NVIDIA Jetson TX2		
Data connection	1 Gbit Ethernet		
IP rating	IP65		

# PhoXi 3D Scanner Gen3 (Blue) L



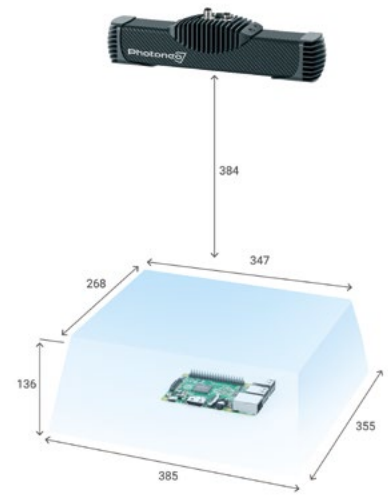
3D sensing technology	Structured Light		
Output data	3D points (x y z), Normals (x y z), Depth Map (z), Color Image, Texture (grayscale/RGB), Confidence (float)		
Depth map resolution	5.1 Mpix (2472 x 2064)		
Color image resolution	Up to 8 Mpix		
Scanning range (near - sweet - far)	870 - 1244 - 2150 mm		
Scanning area (sweet spot)	1112 x 883 mm		
Scanning distance (mm)	Near	Sweet	Far
	870	1244	2150
Relative distance accuracy (%)	1,25	1,25	1,25
Global planarity (mm)	0,4	0,65	1,25
Local planarity (mm)	0,15	0,25	0,5
Temporal noise (mm)	0,02	0,05	0,13
Point-to-point distance (mm)	0,31	0,44	0,76
Acquisition time	From 190 ms		
Scanning time	From 250 ms		
Dimensions	639 x 68 x 86 mm		
Baseline	550.0 mm		
Weight	1100 g		
Temperature working range	Full: 0 - 40 °C Optimal: 22 - 25 °C		
Projection unit laser color	Blue		
Power	PoE or 24V		
Processing unit	NVIDIA Jetson TX2		
Data connection	1 Gbit Ethernet		
IP rating	IP65		

# PhoXi 3DScanner Gen3 (Blue) XL



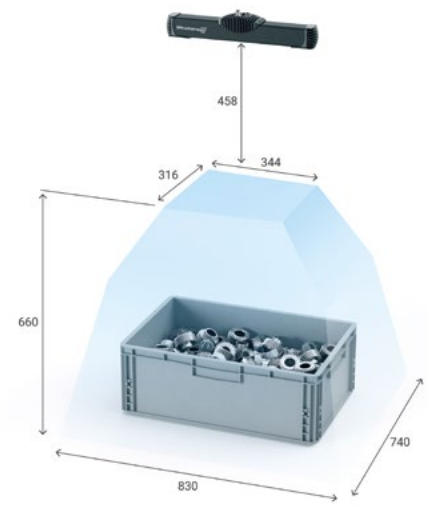
3D sensing technology	Structured Light		
Output data	3D points (x y z), Normals (x y z), Depth Map (z), Color Image, Texture (grayscale/RGB), Confidence (float)		
Depth map resolution	5.1 Mpix (2472 x 2064)		
Color image resolution	Up to 8 Mpix		
Scanning range (near - sweet - far)	1680 - 2331 - 3780 mm		
Scanning area (sweet spot)	2008 x 1656 mm		
Scanning distance (mm)	Near	Sweet	Far
	1680	2331	3780
Relative distance accuracy (‰)	1,6	1,6	1,6
Global planarity (mm)	0,7	1,38	2,9
Local planarity (mm)	0,3	0,59	1,25
Temporal noise (mm)	0,11	0,21	0,45
Point-to-point distance (mm)	0,6	0,83	1,34
Acquisition time	From 190 ms		
Scanning time	From 250 ms		
Dimensions	964 x 68 x 86 mm		
Baseline	850.0 mm		
Weight	1200 g		
Temperature working range	Full: 0 - 40 °C Optimal: 22 - 25 °C		
Projection unit laser color	Blue		
Power	PoE or 24V		
Processing unit	NVIDIA Jetson TX2		
Data connection	1 Gbit Ethernet		
IP rating	IP65		

# PhoXi 3D Scanner Gen3 (Red) S



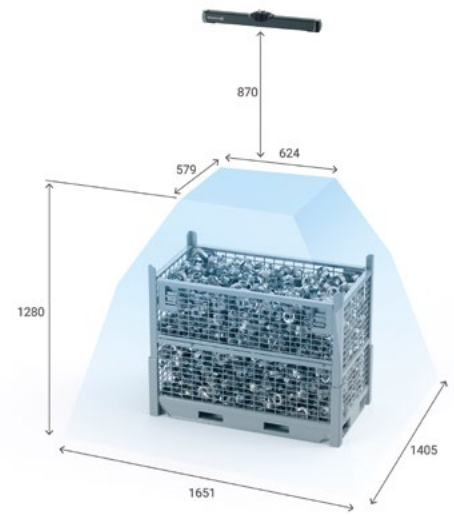
3D sensing technology	Structured Light		
Output data	3D points (x y z), Normals (x y z), Depth Map (z), Color Image, Texture (grayscale/RGB), Confidence (float)		
Depth map resolution	5.1 Mpix (2472 x 2064)		
Color image resolution	Up to 8 Mpix		
Scanning range (near - sweet - far)	384 - 442 - 520 mm		
Scanning area (sweet spot)	364 x 305 mm		
Scanning distance (mm)	Near	Sweet	Far
	384	442	520
Relative distance accuracy (%)	1,25	1,25	1,25
Global planarity (mm)	0,2	0,22	0,25
Local planarity (mm)	0,15	0,16	0,18
Temporal noise (mm)	0,03	0,03	0,04
Point-to-point distance (mm)	0,13	0,16	0,18
Acquisition time	From 190 ms		
Scanning time	From 250 ms		
Dimensions	319 x 68 x 86 mm		
Baseline	230.0 mm		
Weight	900 g		
Temperature working range	Full: 0 - 40 °C Optimal: 22 - 25 °C		
Projection unit laser color	Red		
Power	PoE or 24V		
Processing unit	NVIDIA Jetson TX2		
Data connection	1 Gbit Ethernet		
IP rating	IP65		

# PhoXi 3DScanner Gen3 (Red) M



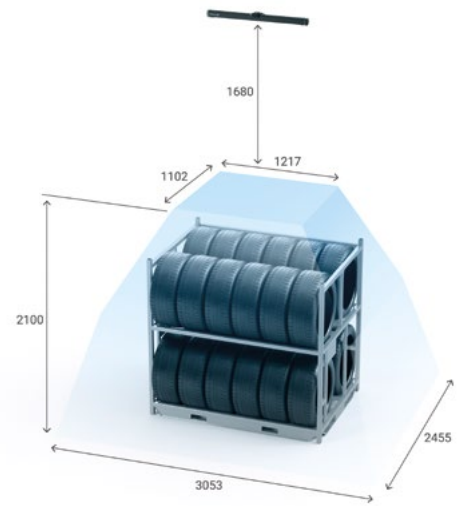
3D sensing technology	Structured Light		
Output data	3D points (x y z), Normals (x y z), Depth Map (z), Color Image, Texture (grayscale/RGB), Confidence (float)		
Depth map resolution	5.1 Mpix (2472 x 2064)		
Color image resolution	Up to 8 Mpix		
Scanning range (near - sweet - far)	458 - 655 - 1118 mm		
Scanning area (sweet spot)	623 x 443 mm		
Scanning distance (mm)	Near	Sweet	Far
	458	655	1118
Relative distance accuracy (%)	1,25	1,25	1,25
Global planarity (mm)	0,25	0,4	0,75
Local planarity (mm)	0,1	0,16	0,3
Temporal noise (mm)	0,02	0,03	0,07
Point-to-point distance (mm)	0,16	0,23	0,39
Acquisition time	From 190 ms		
Scanning time	From 250 ms		
Dimensions	439 x 68 x 86 mm		
Baseline	350.0 mm		
Weight	950 g		
Temperature working range	Full: 0 - 40 °C Optimal: 22 - 25 °C		
Projection unit laser color	Red		
Power	PoE or 24V		
Processing unit	NVIDIA Jetson TX2		
Data connection	1 Gbit Ethernet		
IP rating	IP65		

# PhoXi 3D Scanner Gen3 (Red) L



3D sensing technology	Structured Light		
Output data	3D points (x y z), Normals (x y z), Depth Map (z), Color Image, Texture (grayscale/RGB), Confidence (float)		
Depth map resolution	5.1 Mpix (2472 x 2064)		
Color image resolution	Up to 8 Mpix		
Scanning range (near - sweet - far)	870 - 1244 - 2150 mm		
Scanning area (sweet spot)	1112 x 822 mm		
Scanning distance (mm)	Near	Sweet	Far
	870	1244	2150
Relative distance accuracy (%)	1,25	1,25	1,25
Global planarity (mm)	0,4	0,65	1,25
Local planarity (mm)	0,15	0,25	0,5
Temporal noise (mm)	0,02	0,05	0,13
Point-to-point distance (mm)	0,31	0,44	0,76
Acquisition time	From 190 ms		
Scanning time	From 250 ms		
Dimensions	639 x 68 x 86 mm		
Baseline	550.0 mm		
Weight	1100 g		
Temperature working range	Full: 0 - 40 °C Optimal: 22 - 25 °C		
Projection unit laser color	Red		
Power	PoE or 24V		
Processing unit	NVIDIA Jetson TX2		
Data connection	1 Gbit Ethernet		
IP rating	IP65		

# PhoXi 3DScanner Gen3 (Red) XL



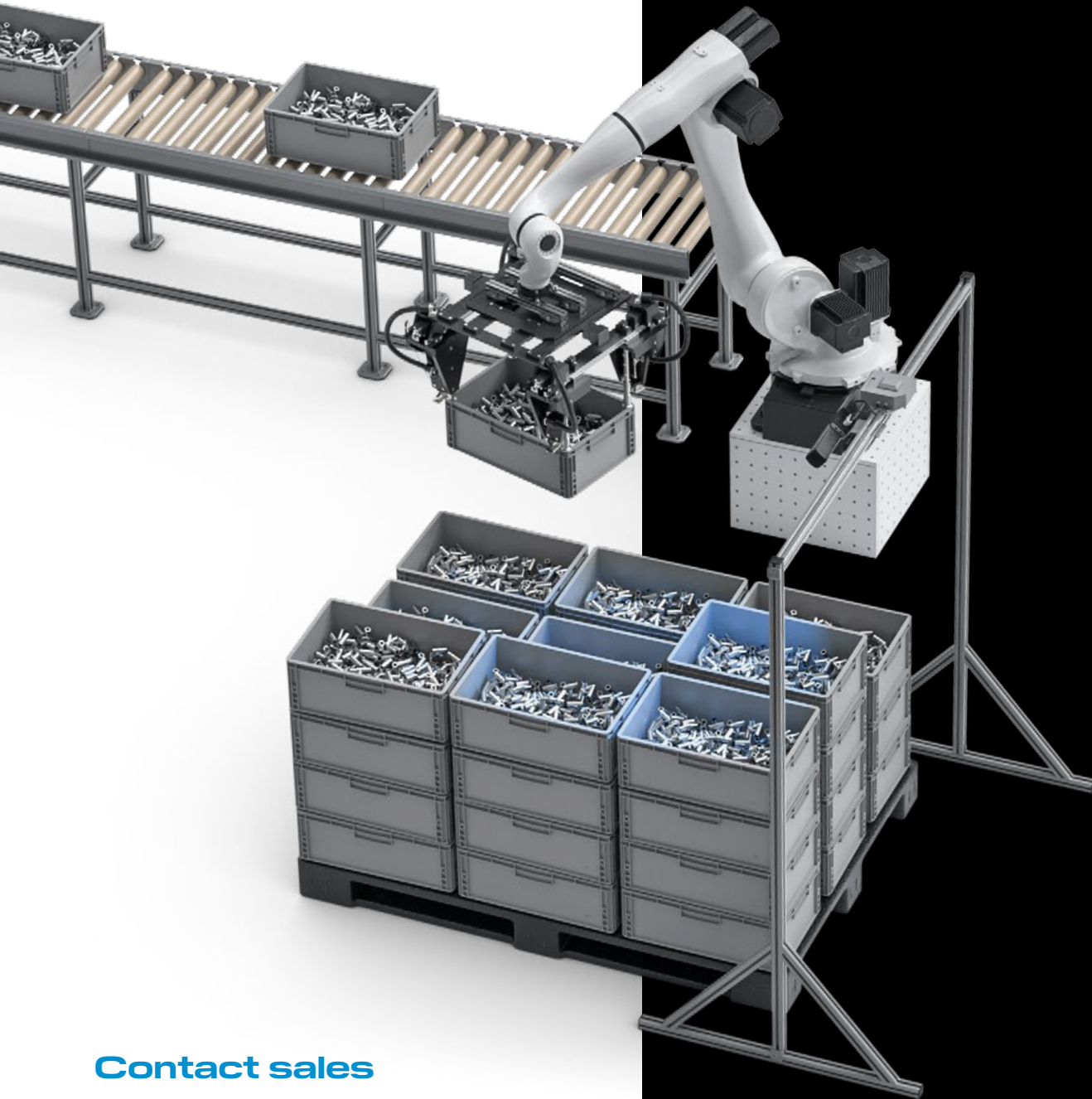
3D sensing technology	Structured Light		
Output data	3D points (x y z), Normals (x y z), Depth Map (z), Color Image, Texture (grayscale/RGB), Confidence (float)		
Depth map resolution	5.1 Mpix (2472 x 2064)		
Color image resolution	Up to 8 Mpix		
Scanning range (near - sweet - far)	1680 - 2331 - 3780 mm		
Scanning area (sweet spot)	2008 x 1520 mm		
Scanning distance (mm)	Near	Sweet	Far
	1680	2331	3780
Relative distance accuracy (%)	1,6	1,6	1,6
Global planarity (mm)	0,7	1,38	2,9
Local planarity (mm)	0,3	0,59	1,25
Temporal noise (mm)	0,11	0,21	0,45
Point-to-point distance (mm)	0,6	0,83	1,34
Acquisition time	From 190 ms		
Scanning time	From 250 ms		
Dimensions	964 x 68 x 86 mm		
Baseline	850.0 mm		
Weight	1200 g		
Temperature working range	Full: 0 - 40 °C Optimal: 22 - 25 °C		
Projection unit laser color	Red		
Power	PoE or 24V		
Processing unit	NVIDIA Jetson TX2		
Data connection	1 Gbit Ethernet		
IP rating	IP65		



**Photoneo**  
Focused on 3D  
NOW PART OF ZEBRA TECHNOLOGIES

### PhoXi 3D Scanner Gen3

powers much wider range of applications than previous generation. From bin picking, through logistics, such as depalettization or tote sorting to AI inspection.



## Contact sales

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(Europe, Slovakia)**

**+421 948 766 479**  
photoneo-sales@zebra.com

**USA & Canada**

photoneo-sales-us@zebra.com

See more here:

