# Unbeatable advantages

#### Every detail in a fraction of a second

Best in class resolution/speed ratio: PhoXi<sup>®</sup> Scanner provides **3.2 million 3D points** in every scan. The scans are provided four times per second.

#### Always-in-focus

Laser projection guarantees a long depth of field. Projection is focused from 1 m up to 3 m. **No linear axes needed.** 

#### Power of GPU

The embedded NVIDIA<sup>®</sup> Jetson<sup>™</sup> platform

#### High-end Construction

Thanks to lightweight carbon fiber body it is possible to mount the scanner on a robotic arm, where every gram counts. Total weight of the device is approximately 1 kg.

#### Ready for processing

PhoXi<sup>®</sup> Scanner provides per pixel normal vectors.

## We are supporting:





















### PhoXi® Control Software

Connection

Gigabit ethernet

Network Discovery with Plug and Play functionality

Settings & Configuration

Intuitive device settings & output selection Ambient light rejection

- > 3D Point Cloud Viewer
- ▶ Software Trigger and Freerun operation modes
- Available on Windows and Ubuntu Linux

#### **API**

Interfaces

C++/C#

OpenCV, Halcon, PCL and ROS support

Examples that clarifies API features

#### **Output**

- Integrated GPU calculates: Point Cloud,
- Normals, Depth Map, Texture and per pixel Confidence
- Resolution: (2064 x 1544) or (1032 x 772)





Specification	PhoXi <sup>®</sup> XS	PhoXi <sup>®</sup> S	PhoXi® M	PhoXi® L	PhoXi® XL
General description	Very small objects like PCB parts can be scanned with a great precision.	<b>PhoXi "S"</b> is perfect for thin objects like cables.	<b>PhoXi "M"</b> is designed for football-sized objects.	Palletizing and de-palletizing is a common application for <b>PhoXi "L".</b>	<b>PhoXi "XL"</b> is great for scanning big objects.
Scanning volume:	120 x 80 x 20 mm	360 x 290 x 70 mm	600 x 420 x 450 mm	1100 x 800 x 900 mm	2300 x 1600 x 1300 mm
Absolute accuracy (1σ)	= 25 μm	= 50 μm	= 100 μm	= 200 μm	= 500 μm
Z noise (1σ)	= 20 μm	= 50 μm	= 100 μm	= 190 μm	= 350 μm
Scanning time	250 - 2000 ms	250 - 2250 ms	250 - 2500 ms	250 - 2750 ms	250 - 3000 ms
Scanning+processing+transfer time	850 - 2800 ms	850 - 3050 ms	850 - 3300 ms	850 - 3550 ms	850 - 3800 ms

# **About Photoneo®**

Our vision is to give robots human-like eyes, perception & intelligence.

We don't want to deliver just "another" machine vision system, we are changing the whole definition of machine vision by introducing new hardware and software solutions.

#### Our mission is to:

1. Introduce state of the art 3D scanners (static scene) and 3D cameras (dynamic scene) to the market and support their users with game changing SDKs and APIs.

2. Change traditional 2D machine vision approach in industrial environment and bring unique devices with novel functionality to the market. With our new devices manufacturers will be able to build more flexible production lines and robot integrators will get powerful tool for new applications.



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powered by NVIDIA® Jetson™ platform









