



Smart vision solutions for industrial manufacturing

Modular AI platform for controlled visual inspection,
3D robot guidance, and adaptive surface inspection

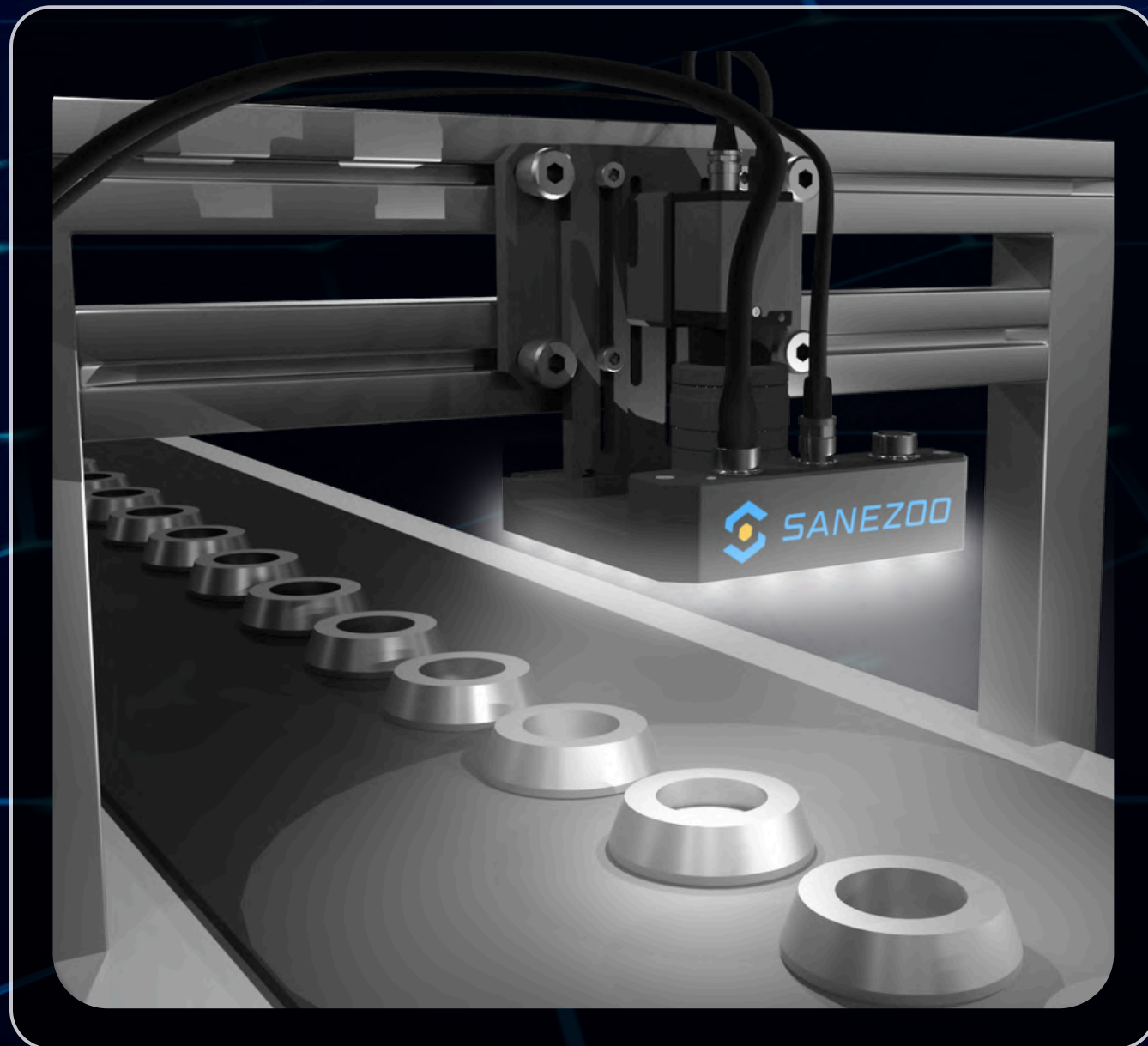
www.sanezoo.eu



Sanezoo

Teach Cameras To Think

SANEZOO is a Czech technology company specializing in advanced machine vision, 3D reconstruction, and industrial automation.



8+
years on the market

Experience from real industrial production environments

10000+
products daily

Continuous in-line inspection in serial production

20+
solution types

Proprietary software and hardware development

ROI
within 10 months

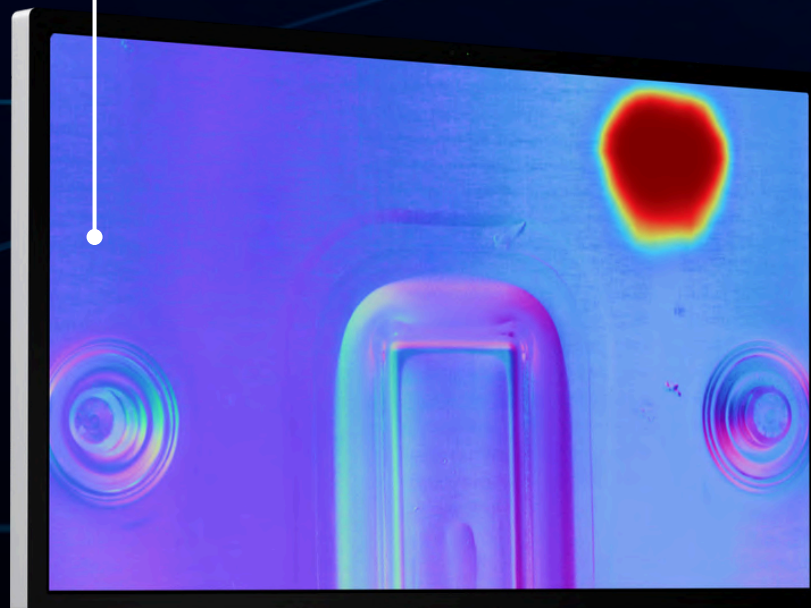
Average return on investment based on implemented projects



Comprehensive visual automation for manufacturing

SANEZOO develops modular vision systems covering the full spectrum of visual production automation — from surface defect inspection and detection, through precise geometric measurement, to 3D robotic guidance and intelligent part picking.

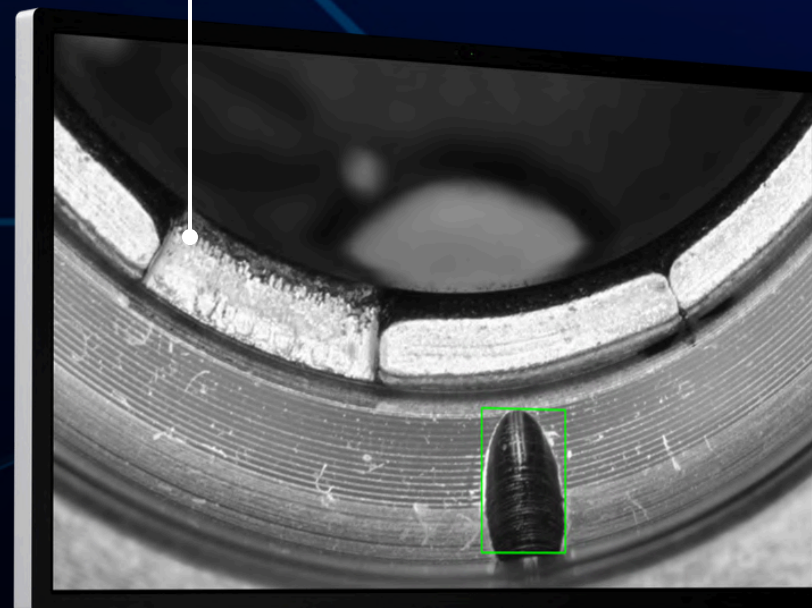
 Inspection



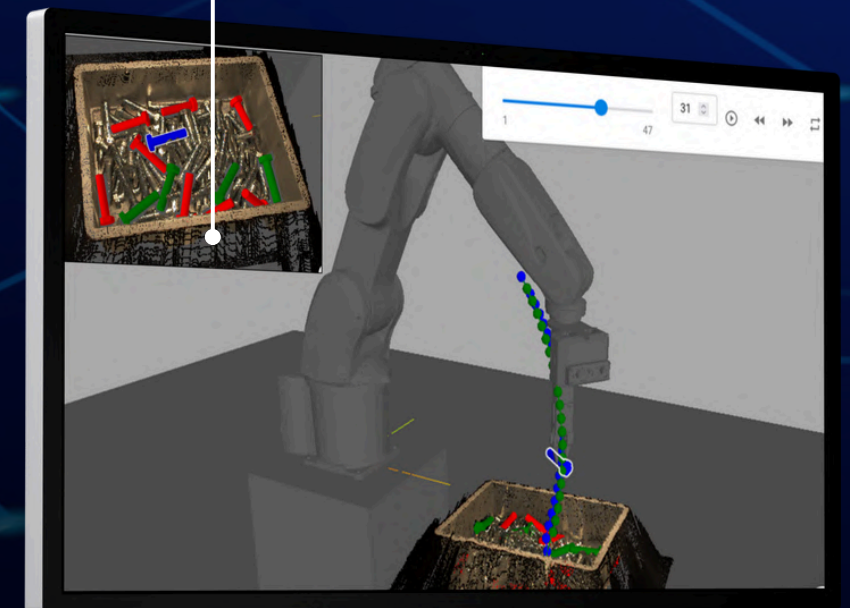
 Measurement



 Detection



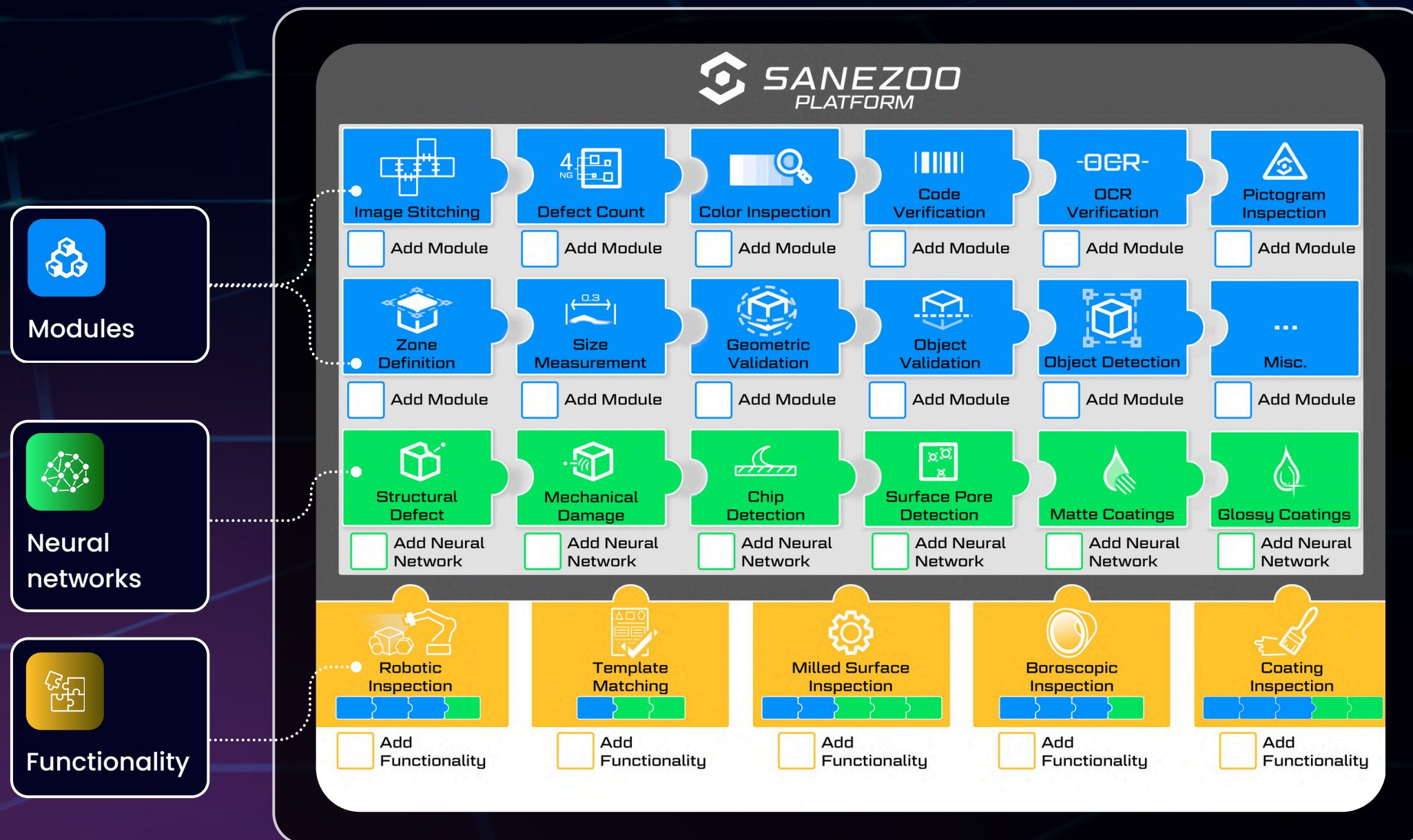
 Picking



Sanezoo Platform

Modular architecture for configurable automation

The Sanezoo Platform enables combining modules, neural networks, and decision logic into configurable pipelines tailored to specific production requirements.



Platform benefits

Flexible solution

No black box

Easy configuration

Buy-what-you-need approach

Extensive module catalog

Independence

Reusability



Sanezoo Studio

From picking to inspection in one environment

SANEZOO Studio provides intuitive configuration for all SANEZOO products, user-friendly interfaces, and seamless integration into various environments.

It enables a wide range of applications within a single unified system – eliminating the need for multiple separate platforms.

Role-based interface – operator, admin, supervisor

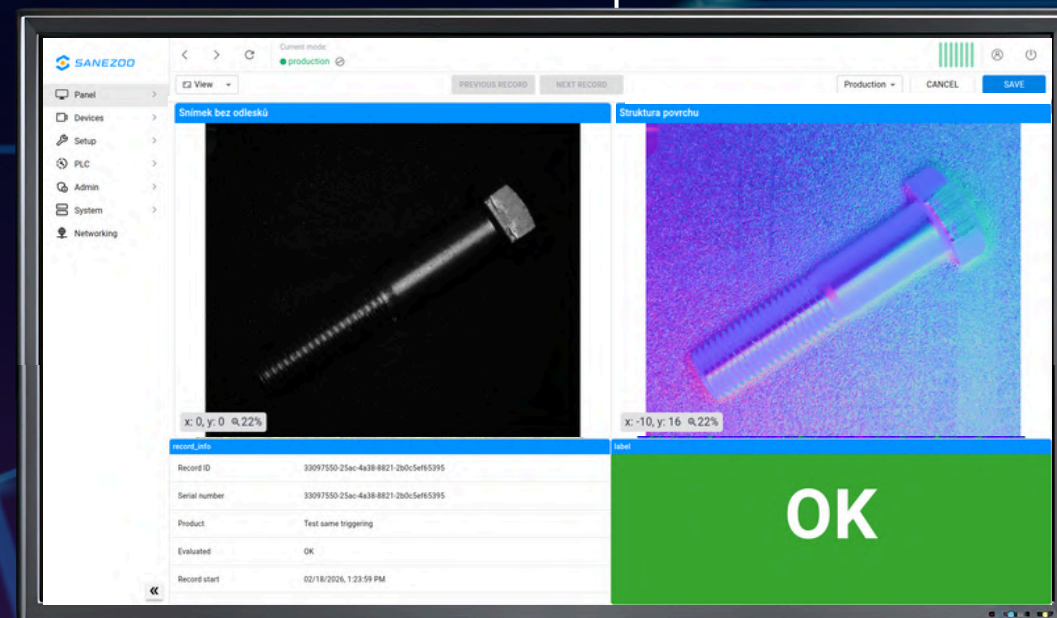
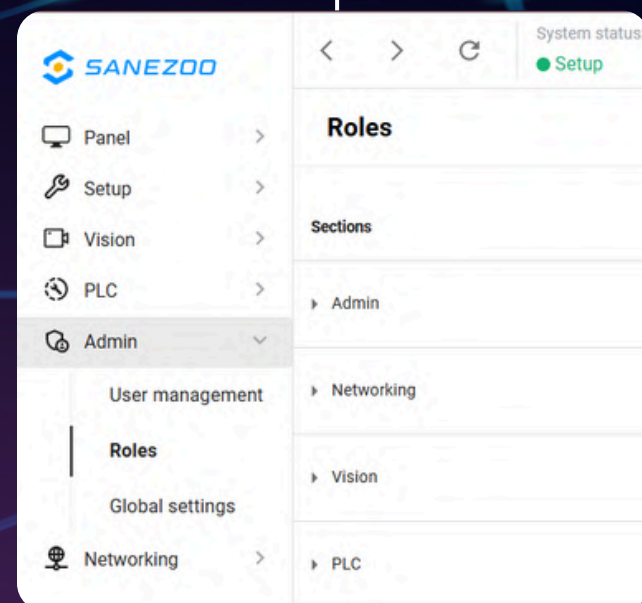
Each user sees only relevant data and tools

One system for multiple processes

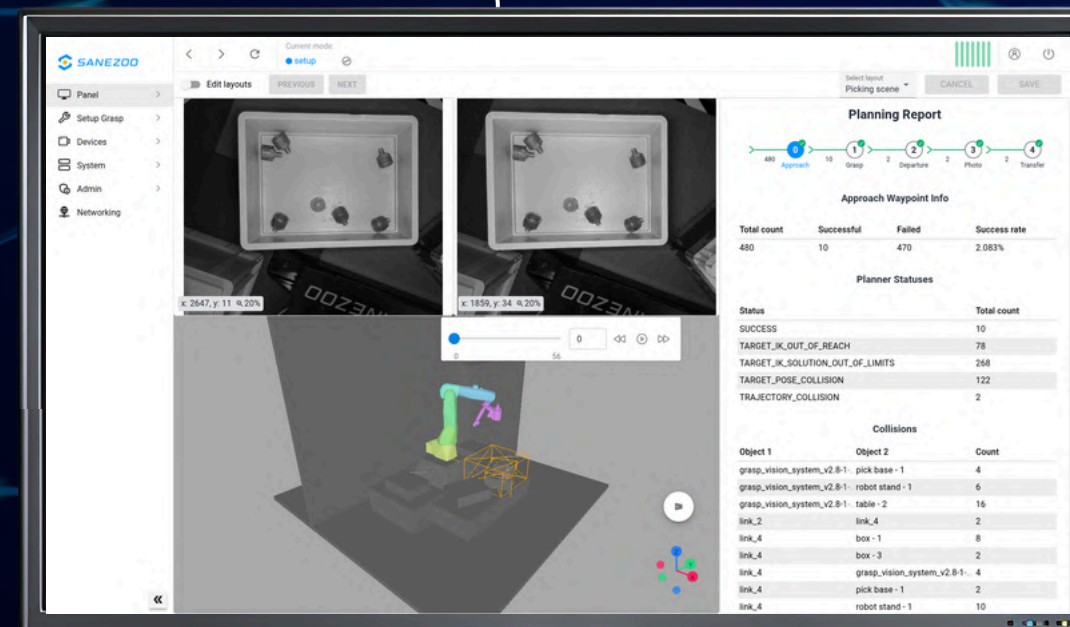
From 3D picking and robot guidance to detection, measurement, quality inspection, and painted surface control

Built-in user assistants

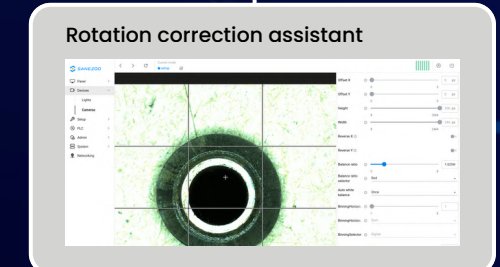
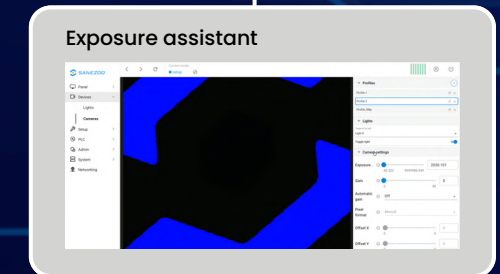
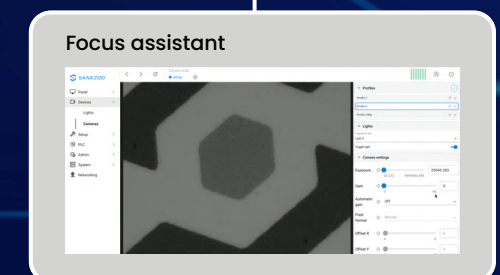
For optics setup, exposure adjustment, part alignment, and more



Inspection setting



Picking setting



Pipeline: Controlled Decision-Making Over Image Data

A structured chain of operations starting from image acquisition and ending with an OK/NOK decision or robotic action.

Solutions can be configured quickly without complex programming

The entire pipeline is modular, visually represented, and easily adjustable to the specific task

Includes cycle time

The screenshot displays the SANEZOO software interface for configuring a 'Barcode reader' pipeline. The interface is divided into several sections:

- Left Panel:** A navigation menu with options: Panel, Devices, Setup, Sequences, Advanced sequences, Pipelines, Resources, Products, PLC, Admin, System, and Networking.
- Top Bar:** Shows 'Current mode: setup' and a 'SAVE' button.
- Input Data Section:** Displays 'Selected record' with a barcode ID '9d1cb8cc-c14e-4f04-b929-...' and a table of product details:

Product Serial number	Product
9d1cb8cc-c14e-4f04-b929-78f0bcc5a88a	9d1cb8cc-c14e-4f04-b929-78f0bcc5a88a
Status	Success
Created	2026-02-18 15:59:17.593
- Saved Data Section:** Shows 'cm1 [1] image' and an 'Input node' dropdown.
- Main Canvas:** A visual flowchart of the pipeline. It starts with an 'Input node' (input_image) connected to a 'BarcodeReader' module. The module outputs 'barcode_data' and 'barcode_bounding_boxes'. These are connected to an 'Output node' (input). Below this, there are additional nodes: 'Mask Node' (FindMask) which takes 'image' and 'blob_list' and outputs 'mask' and 'haveHole'; 'BlurImage' (BlurImage) which takes 'image' and 'blur_amount' and outputs 'blurred_image'; and a 'Max' node which takes 'images' and 'mask' and outputs 'max_image'.
- Right Panel:** 'Selected node' details for 'BarcodeReader', including Node name, Node type (module), Plugin (v2), and Module name. Below this is a configuration for 'input_image' (InputImage2d).
- Bottom:** A 'Last run: 0.322 ms' indicator and a 'RUN' button.



Sanezoo Catalog

Functional block library



Full control over the solution

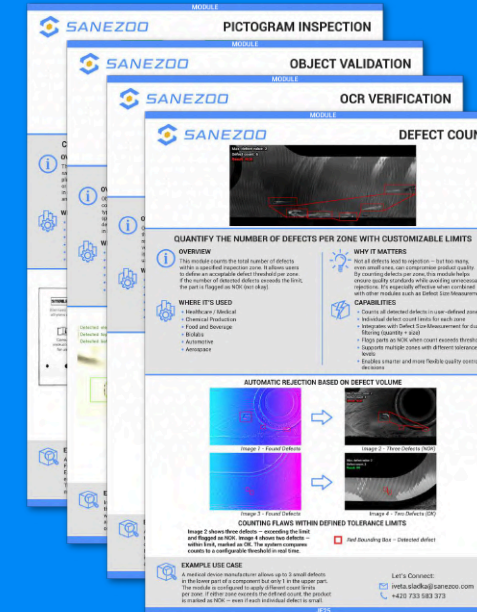


Unlimited modularity



Continuous updates

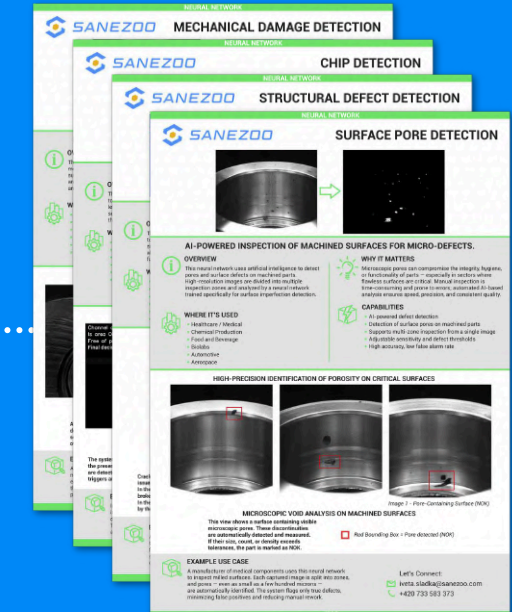
The SANEZOO catalog is a continuously evolving ecosystem of modules, neural networks, and hardware components that enables designing solutions tailored precisely to specific production needs – from simple inspections to complex automated applications.



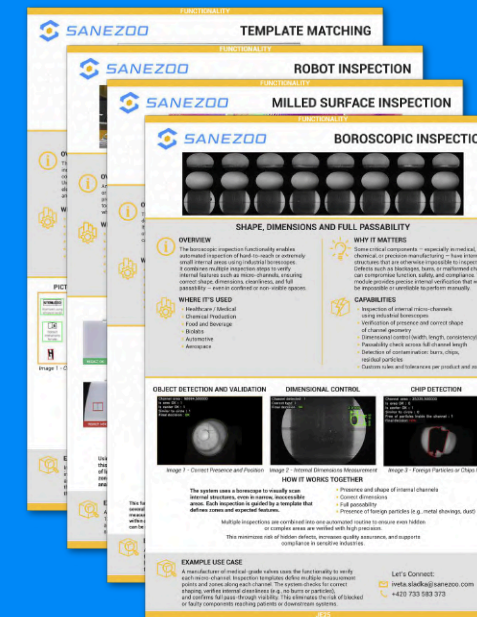
Modules catalog



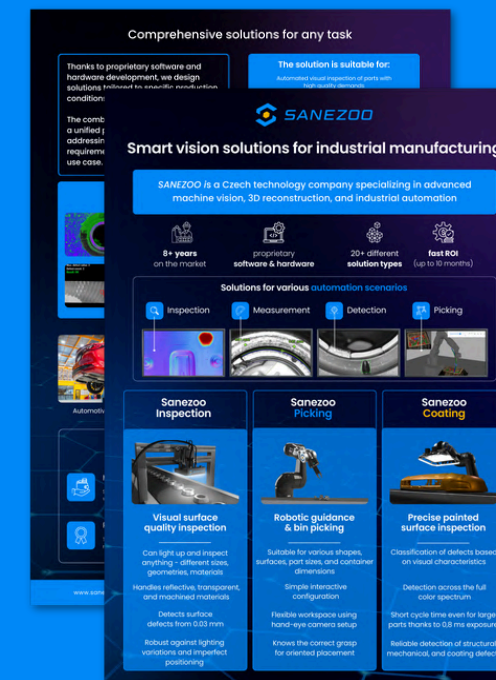
SANEZOO Catalog



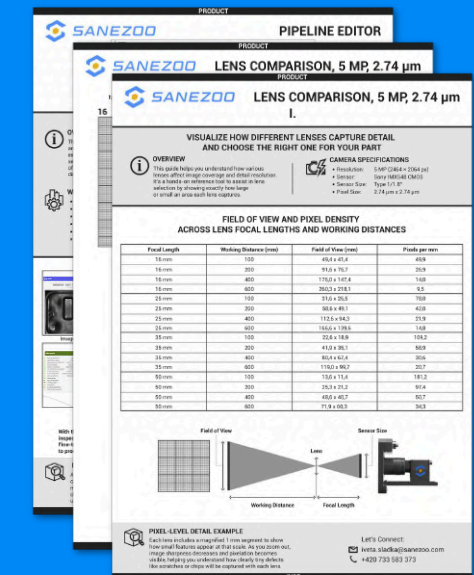
Neural networks catalog



Functionality catalog



Argumentation

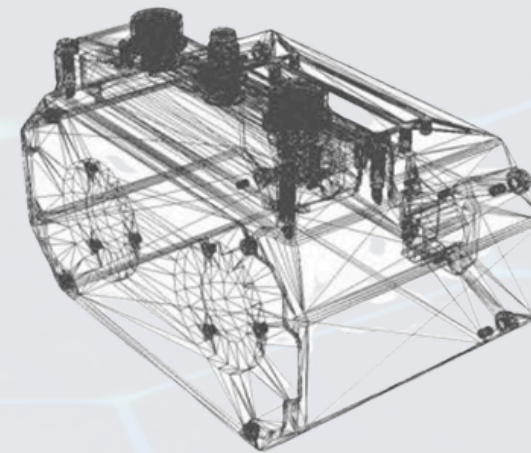
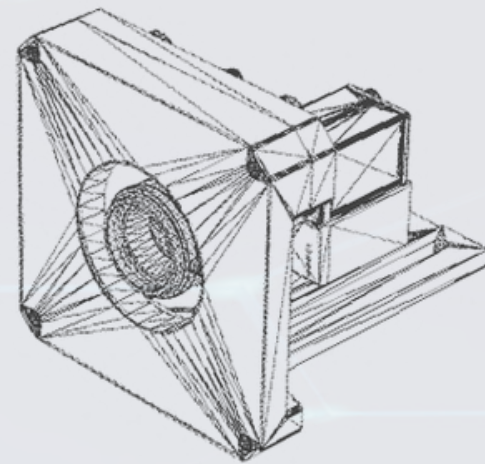
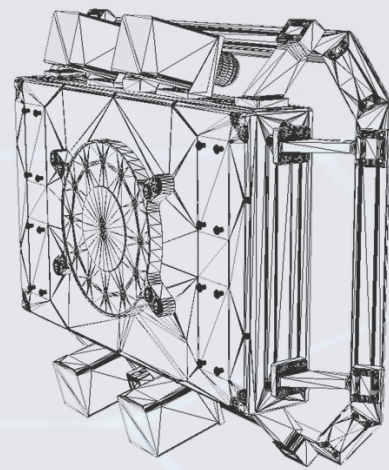


Technical catalog



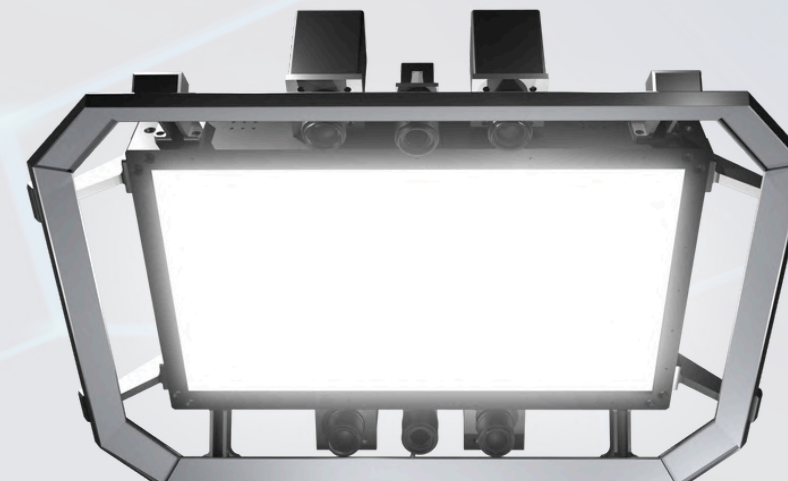
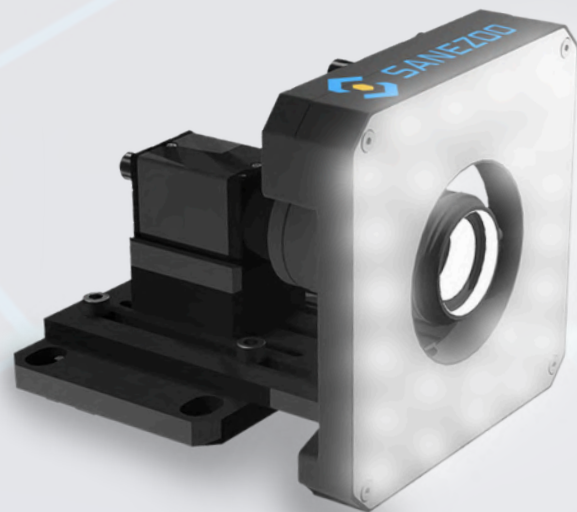
Sanezoo Products

Comprehensive automation solutions



Sanezoo Inspection

Visual surface quality inspection



Quality inspection begins with proper lighting, therefore **we design and use our own lighting systems.**

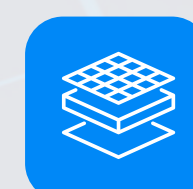
We can light up any application



different sizes




different geometry





different materials


Flexible solutions for various automation scenarios


Lighting parameters are optimized precisely according to material type, surface characteristics, and inspection requirements – enabling illumination of any application, from the smallest cavities and hard-to-reach areas to large surfaces with uniform ambient lighting.


- 

Detects surface defects starting from 0.03 mm
- 

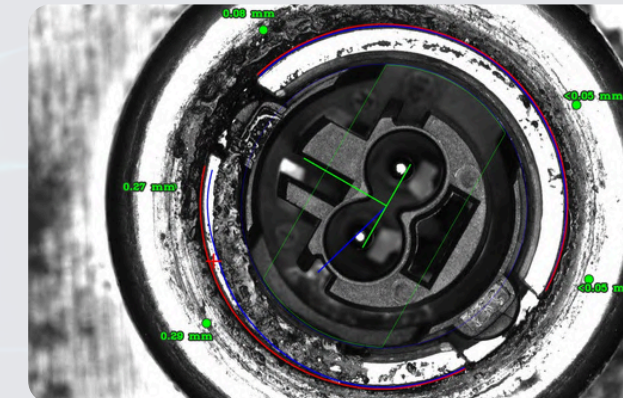
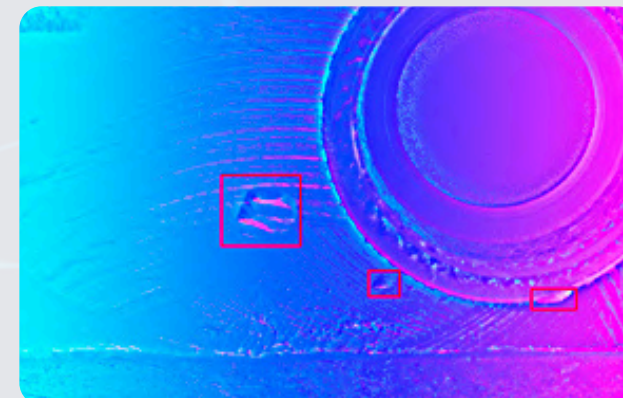
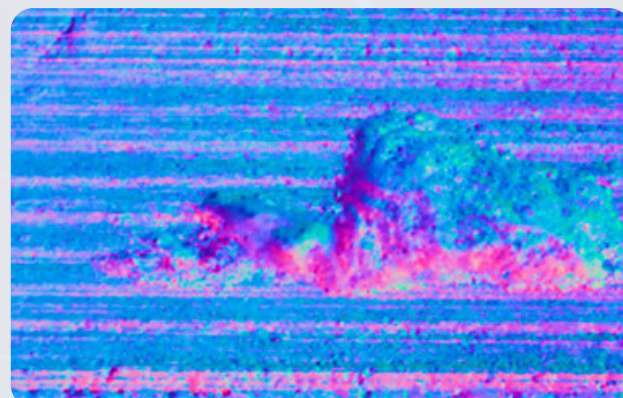
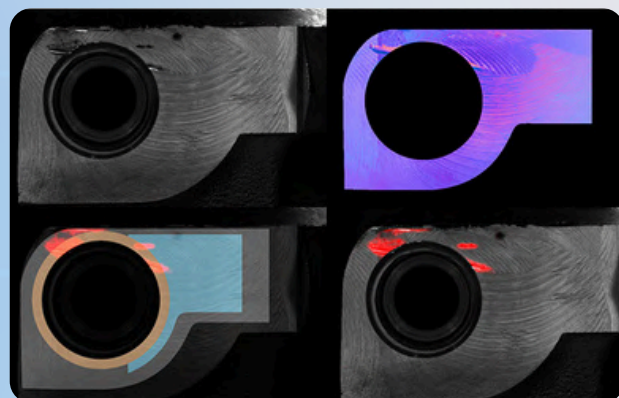
Handles highly reflective, transparent, and machined materials
- 

Robust against lighting variations and imperfect positioning
- 

Neural network system with configurable application-specific logic
- 

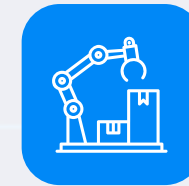
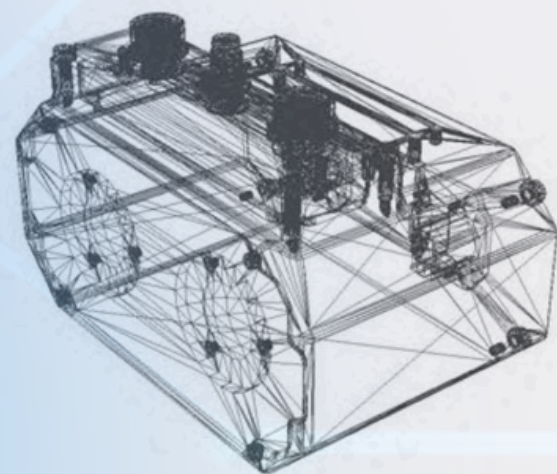
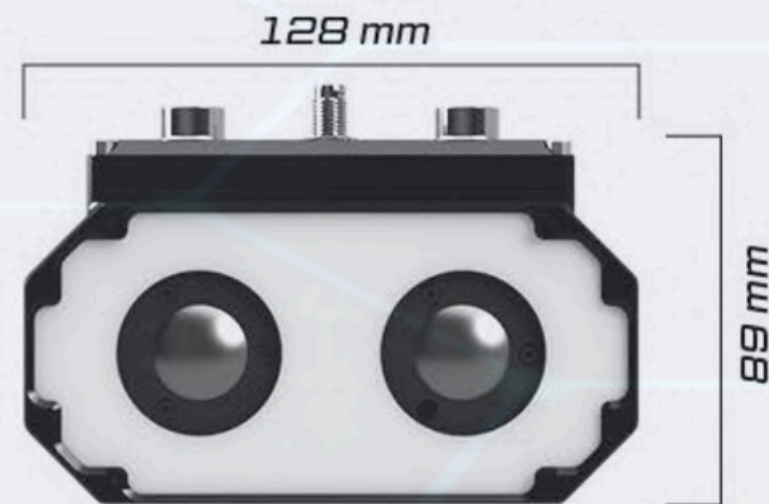
Not confused by stains, machining marks, or structural anomalies
- 

Can be integrated inline for NOK rejection, end-of-line inspection, or deployed externally



Sanezoo Picking

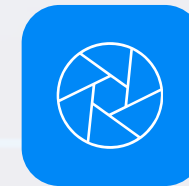
Robotic guidance & bin picking



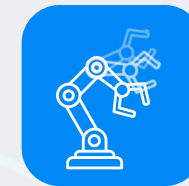
Simple interactive configuration



Suitable for a wide range of parts



Flexible workspace using hand-eye camera setup



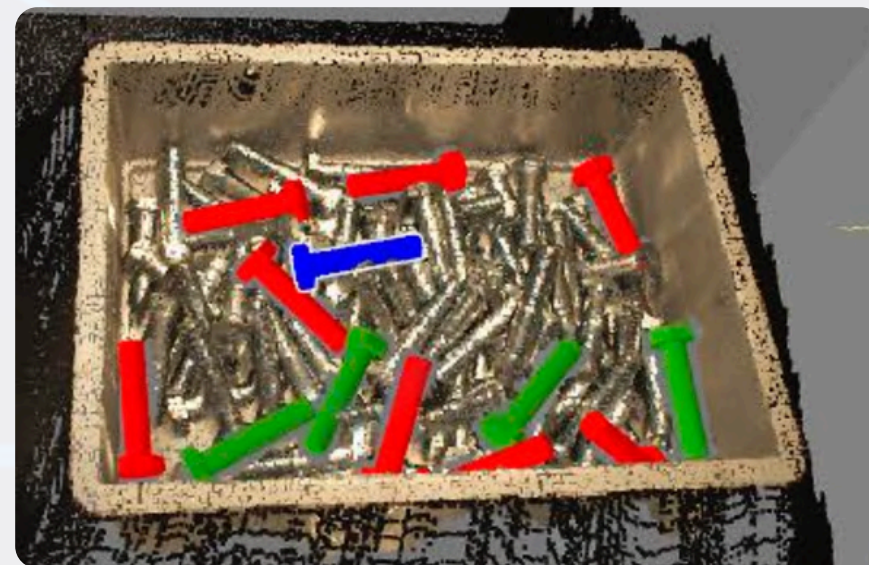
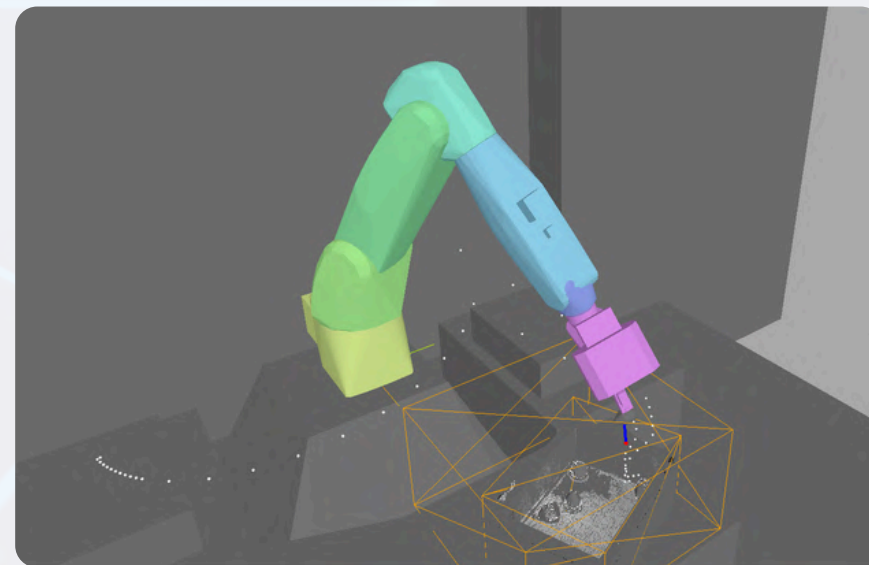
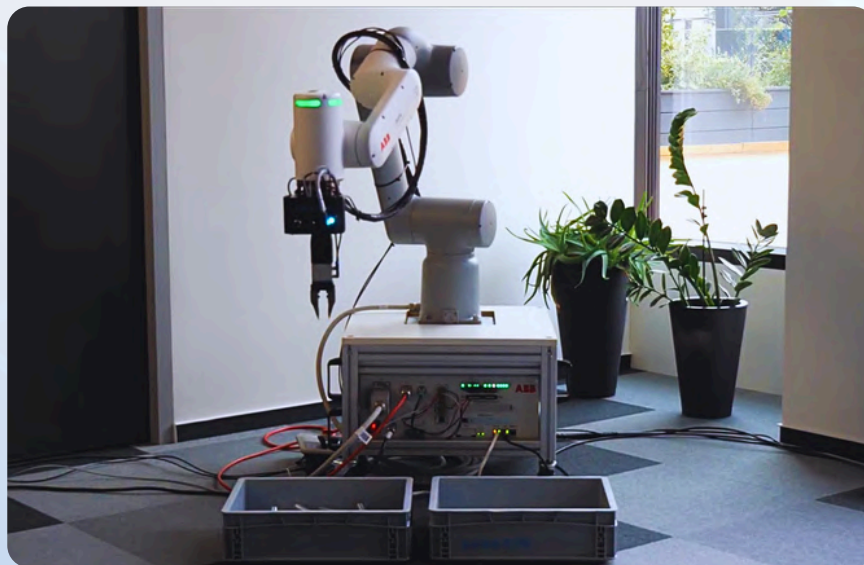
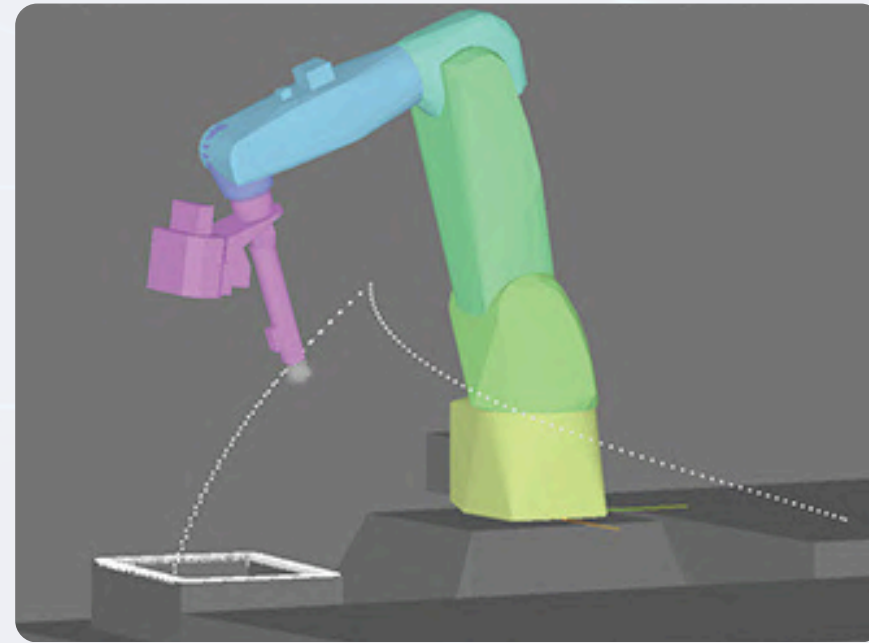
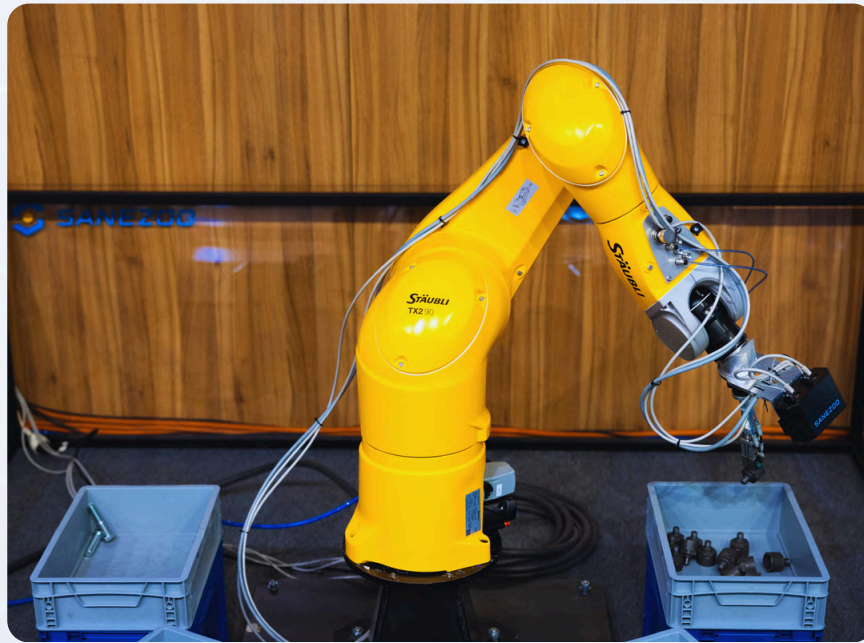
Robot trajectory planning within a virtual workstation scene



Knows the correct grasp for oriented placement



Suitable for various shapes, surfaces, part sizes, and container dimensions



Sanezoo Picking is an advanced robotic guidance and automated part handling system. It utilizes 3D scene reconstruction and intelligent algorithms to recognize objects, determine their orientation, and calculate collision-free robot trajectories. The system is designed to handle a wide range of shapes and materials, including reflective and machined parts.

It enables stable and repeatable picking from randomly arranged containers. Thanks to its modular architecture, the system integrates flexibly into robotic cells and existing production lines, adapting to specific application requirements.

- ✓ **Minimum main part dimension: 10 mm**
- ✓ **Trajectory computation time from 2 s**

Installation options with leading robotics partners

 **Kawasaki**

FANUC

STÄUBLI

 **MITSUBISHI
ELECTRIC**

ABB

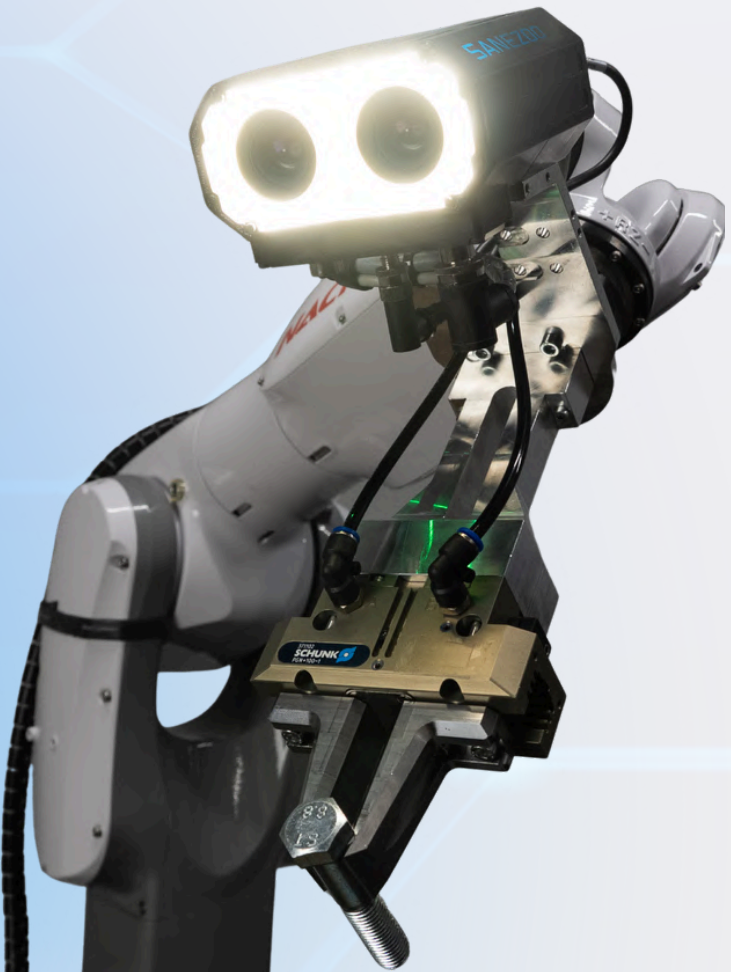
 **KUKA**


COMAU

NACHI

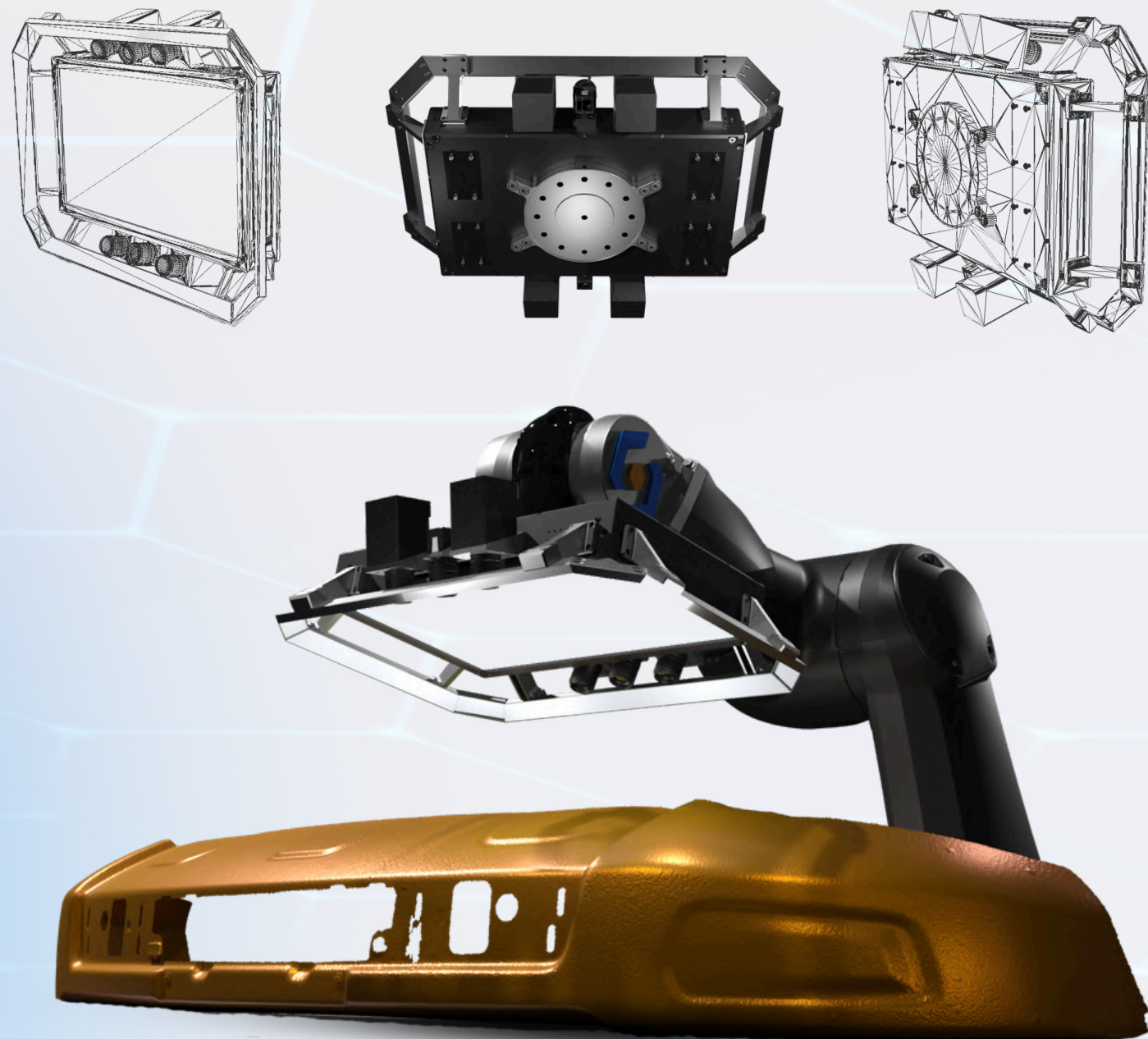
YASKAWA

Shibaura Machine



Sanezoo Coating

Unique solution for painted surface inspection



Basic classification of painted surface defects based on visual characteristics



Parameterization of countable and NOK defects for quantitative evaluation



Reliable detection of structural, mechanical, and coating defects from 0.03 mm



Detection across the full color spectrum, including metallic and matte paints



Static or robotic integration into production environments



Individual parameter configuration per product type

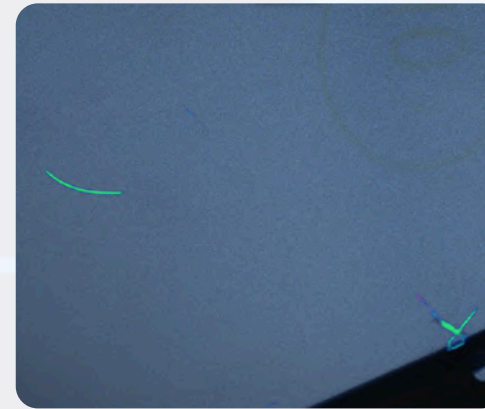


Short cycle time even for large parts thanks to 0.0008 s exposure enabling motion capture

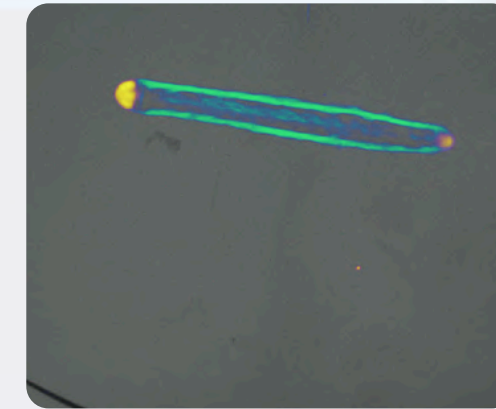
Sanezoo Coating is a specialized system for reliable detection of visual defects such as scratches, dust inclusions, pores, runs, uneven coating coverage, and structural paint anomalies.

Inspection process:

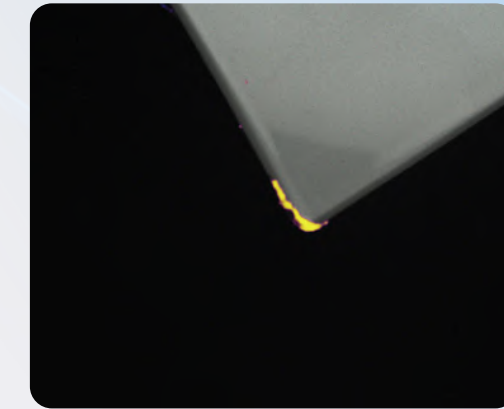
- 1 Capture position optimization**
The system analyzes part geometry and proposes optimal viewing angles to ensure full coverage without blind spots.
- 2 Surface imaging**
Combination of controlled lighting and multi-angle capture.
- 3 Post-processing**
Preparation and enhancement of captured data for AI-based evaluation.
- 4 Defect analysis & classification**
Machine vision models analyze captured data, localize defects, classify their type, and measure relevant parameters.



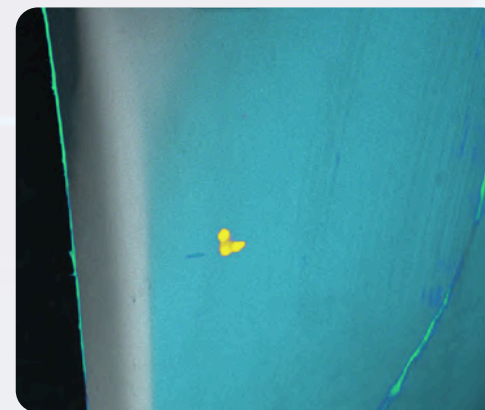
scratches



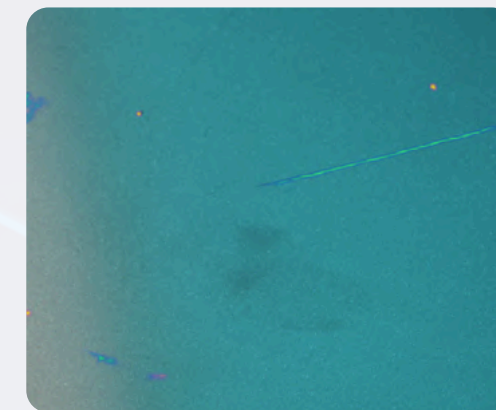
paint drops



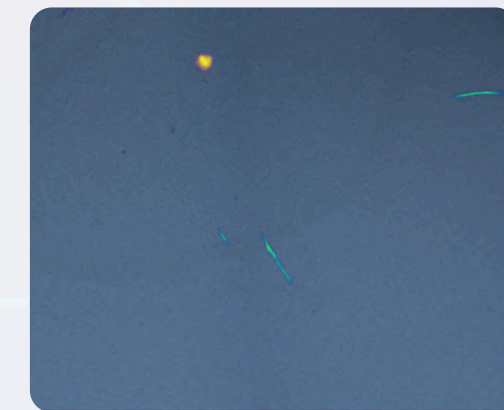
edge defects



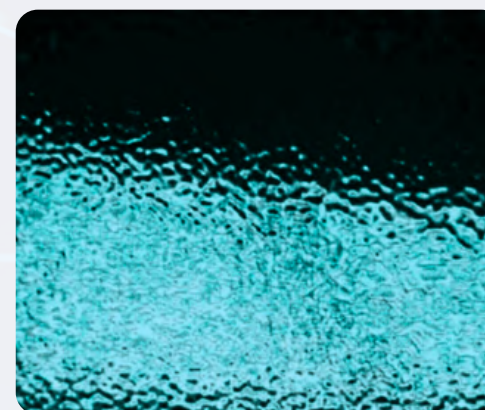
dirt under the paint



needle punctures



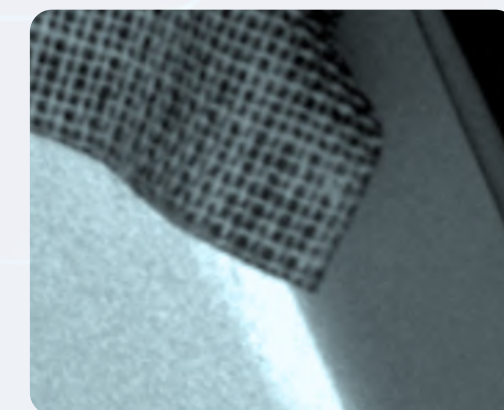
holes



orange peel



coated particles



other impurities

Why choose Sanezoo

Comprehensive solutions for any task

Thanks to proprietary software and hardware development, we design solutions tailored to specific production conditions.

The combination of both layers creates a unified platform capable of addressing a wide range of industrial requirements — not limited to a single use case.



Stable quality with fast return of investment



Modular architecture

The system can be easily extended with new functionalities according to evolving needs



Controllable platform

Application logic is built from combinable modules that can be freely chained and modified



One system, endless possibilities

Unified environment for all applications — no need to train personnel on multiple separate systems



Proven ROI

Investment typically returns within 10 months through labor savings and reduced scrap rates



Margin & reputation protection

Systematic quality control eliminates unnecessary warranty costs and strengthens customer trust



References and awards

Trusted by leading industrial companies and recognized at international trade fairs.





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Teach Cameras to Think

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