EMBEDDED POINT CLOUD ENGINES

MULTI-STEREO-QUAD-CAMERA-TECHNOLOGY

TOUCH & AUTOMATE
Beyond INDUSTRIE 4.0

3D ROBOT VISION FOR BIN PICKING

PowerPICK3D

MAXIMUM PERFORMANCE FOR HIGHEST FLEXIBILITY
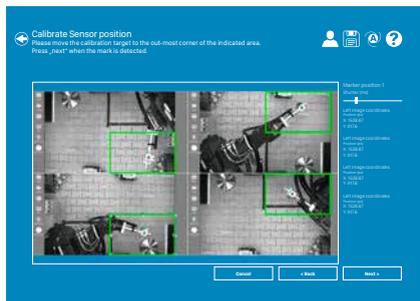
ISRA
VISION

READY-TO-USE IN 10 MINUTES
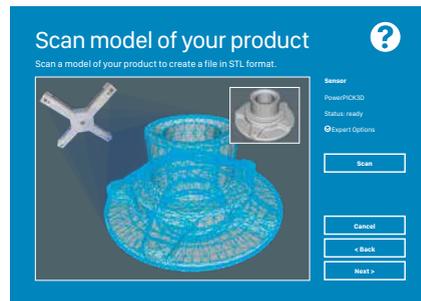
Setup with 1-Click Robot-Interface

Seamless robot communication across different robot brands
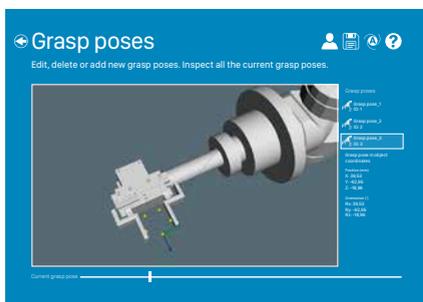
Automatic Calibration and Tuning

Fast and easy sensor setup
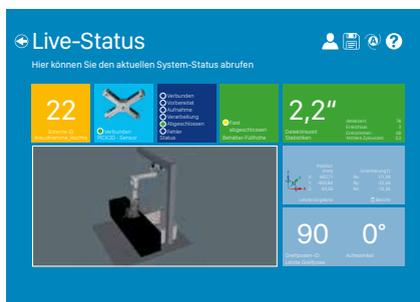
Teach-in of new Parts

Let your system teach itself or load an existing CAD model

Define Grasp Poses

Maximize the degree of emptying the bin

Automatic Robot Path Planning

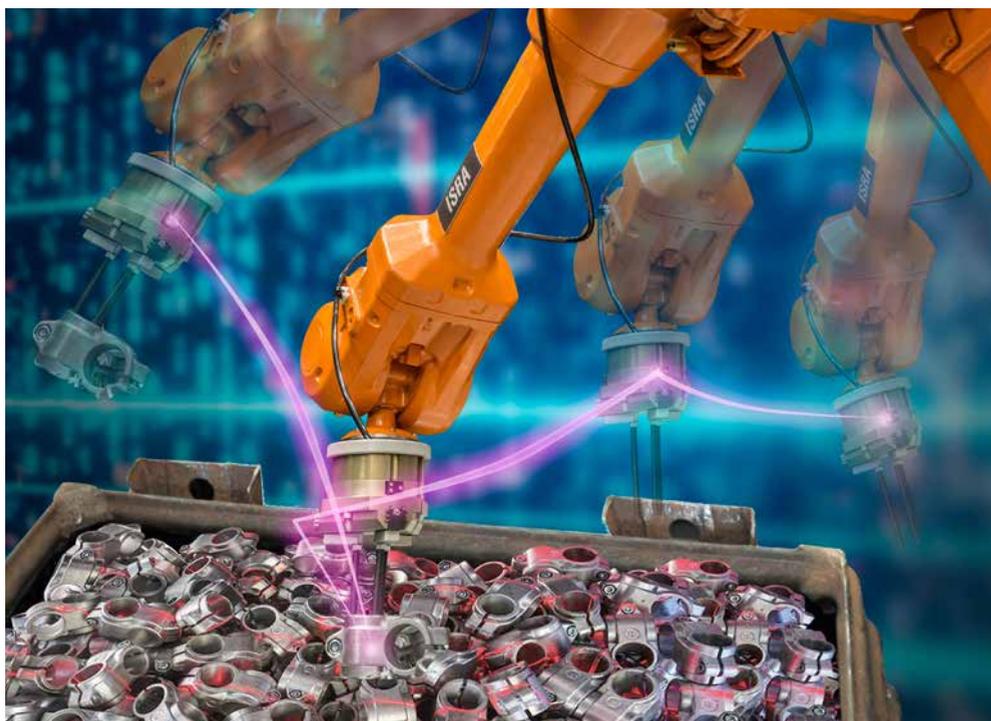**Take the perfect path – collision-free and fast**

Touch & Automate:
New User Experience – Sensor setup and control by handheld devices

SPEED-UP YOUR APPLICATION TO A MAXIMUM

AUTOMATIC PATH PLANNING

TAKE THE PERFECT PATH – COLLISION FREE AND FAST

- Maximized process security using collision-free path planning
- Shortest cycle times due to optimized robot path
- Increased degree of emptying with higher reachability of parts

FASTEST CYCLE TIMES, MAXIMUM PERFORMANCE AND ACCURACY WITH PowerPICK3D

PowerPICK3D

Multi-Stereo-QUAD-Camera-Technology

PowerPICK3D-600
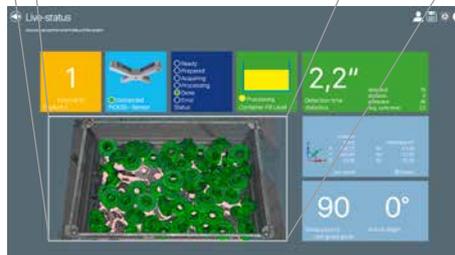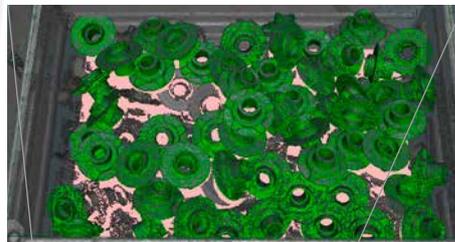
PowerPICK3D-800

PowerPICK3D-1200

NEW 3D SENSOR FOR RANDOM BIN PICKING OF COMPONENTS WITH ANY DESIGN AND SHAPE

Random bin picking is an automation solution in which a robot, equipped with 3D vision technology, takes parts out of a container filled with unsorted pieces and aligns them properly.

PowerPICK3D was developed to enable reliable bin picking even for small parts regardless of geometry, surface, or material. Manufacturing operations rely on this bin picking solution to significantly save costs and manufacturing time. Installation is easy, and performance is maximized through various benefits.

Generation of the 3D Point Cloud ▶ **Detection of Parts in the 3D Point Cloud** ▶ **Path Planning & Picking**

Over 30 years of Robot Vision Experience and more than 10.000 installed systems in market | Global Service Network | Embedded Design: Maximum performance for your industrial application | Plug & Automate: Ready to use within minutes | Reliable & Robust: Process stability powered by innovative features | Ready for the Future: Industrie 4.0 communication technology

THE WORLD'S MOST POWERFUL, INTEGRATED BIN PICKING SENSOR
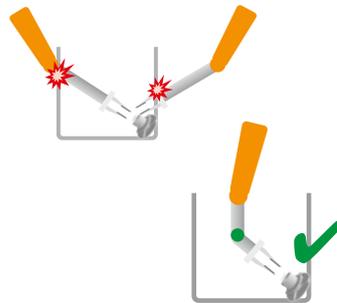
MULTI-STEREO-QUAD-CAMERA TECHNOLOGY

ADVANCED POINT CLOUD TECHNOLOGY FOR HIGHEST RESOLUTION AND ACCURACY
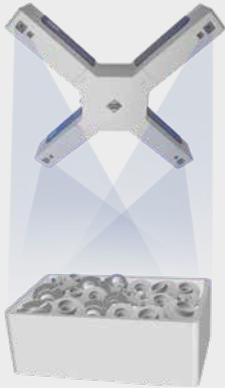
- High precision and complete part sampling
- Higher pick rate with perfect point cloud quality
- Seeing the entire bin volume
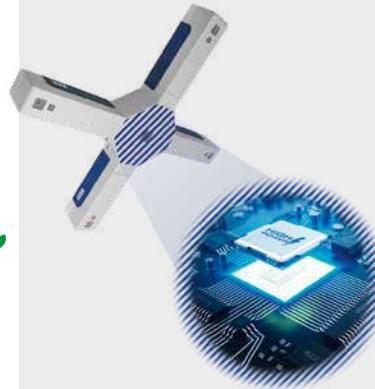
ADDITIONAL GRIPPER AXIS SUPPORT

MAXIMIZING THE DEGREE OF EMPTYING THE BIN

- Remove all parts from the bin
- Increase reachability of parts in the corners of the bin
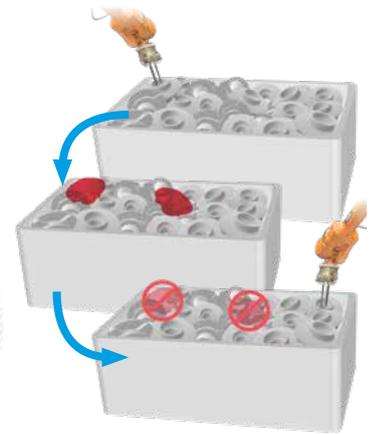
HIGH-SPEED SCANNING

HIGH-SPEED SCAN TIME BELOW 0.5 S THROUGH EMBEDDED DESIGN

- High-Speed scanning leads to shorter cycle times
- Increased throughput maximizes process efficiency

MULTI-PICK

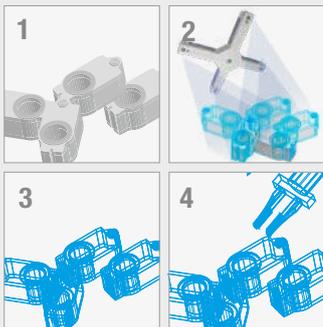**PICKING OF MULTIPLE PARTS WITH ONLY A SINGLE SCAN**

- Process reliability due to movement control
- Increased throughput due to shorter cycle times

THE EASIEST WAY FOR SETTING UP AN APPLICATION

TEACH-FROM-SCAN

LET THE SYSTEM TEACH ITSELF

- Easiest commissioning using innovative part teach-in
- Making bin picking possible for nearly all type of parts – no drawings/CAD needed
- Robust processes with higher accuracy by having a perfect model of the real part

TEACH-FROM-CAD

FASTEST INTEGRATION OF NEW PARTS WITH EXISTING CAD MODEL

Load CAD model of your product
Please load a cad model in STL format or select an elementary shape.

File
C:\Users\GRAVISION\Desktop\1-100010.stl

Expert Options

Browse

Cancel
< Back
Next >

- Convenient offline commissioning without sensor
- Easy and fast integration of new parts

FULLY-AUTOMATIC CALIBRATION

BRINGING TWO COORDINATE SYSTEMS TOGETHER – FAST AND EASY
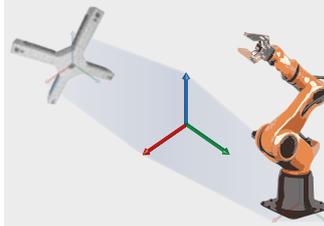
- Faster ramp-up with reduced set-up time
- Easy handling
- Higher accuracy compared to TCP measurement

GUIDED WORKFLOW

USER GUIDED SETUP FOR SIMPLE SYSTEM CONFIGURATION

System setup – next steps
Please choose how you would like to proceed

All the steps have been completed. You can now proceed to the main desktop or edit any of them.

Setup I/O communication
Setup sensor
Configure gripper
Configure container
Configure product

Go to Main Desktop
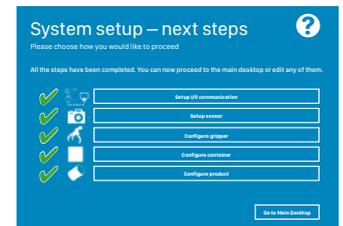
- Simple system configuration by own engineers
- No programming skills needed
- Ready-to-Use within hours

IMPROVE YOUR PROCESS STABILITY
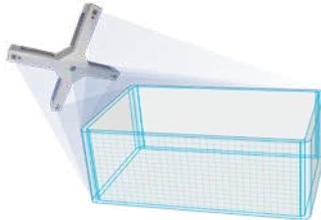
EYE-SAFE ILLUMINATION
EMPLOYEE SAFETY WITH NORM CONFORM LED TECHNOLOGY

- Reduced costs: No extra safety measures to needed
- Safer workplace environment

3D CONTAINER DETECTION
MAXIMIZE YOUR PROCESS STABILITY WITH CONTINUOUS CONTAINER TRACKING

- Higher process stability due to container detection after each scan
- Detect and utilize a wide range of bins
- Higher degree of emptying the bin
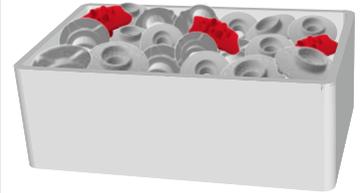
AUTOMATIC DIAGNOSTIC ASSISTANT
SELF-MONITORING WITH AUTOMATED REPORT GENERATION

- Service-friendly: Offline analysis of production
- Maximum transparency: Automatic reports to monitor the production process

UNKNOWN PARTS DETECTION
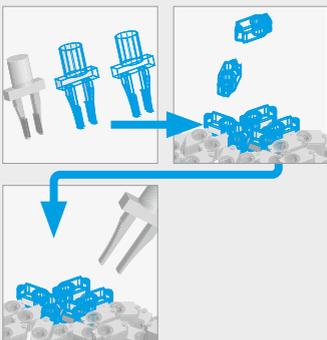### PROTECT YOUR PRODUCTION PROCESS AGAINST USAGE OF WRONG PART TYPES

- Process reliability
- Avoidance of wrong part types in the production process
- Reduce downtime due to foreign obstacle detection and alert to PLC

PERFECT CONNECTIVITY FOR OPTIMAL APPLICATION DESIGN

DIGITAL TWIN
THE VIRTUAL SIMULATION OF RANDOM BIN PICKING APPLICATIONS

- Cost savings thanks to virtual application design
- Minimize engineering time due to reduced optimization loops
- Convenient offline application development

1-CLICK-ROBOT-INTERFACE
SEAMLESS ROBOT COMMUNICATION ACROSS DIFFERENT ROBOT BRANDS

- Cost reduction due to modern Ethernet-based communication
- Time savings during commissioning and installation

MULTI-SENSOR LAYOUT
PERFECTLY SUITED SENSOR CONFIGURATION FOR EACH APPLICATION

- Modular and flexible application design
- Increased throughput with parallel scanning
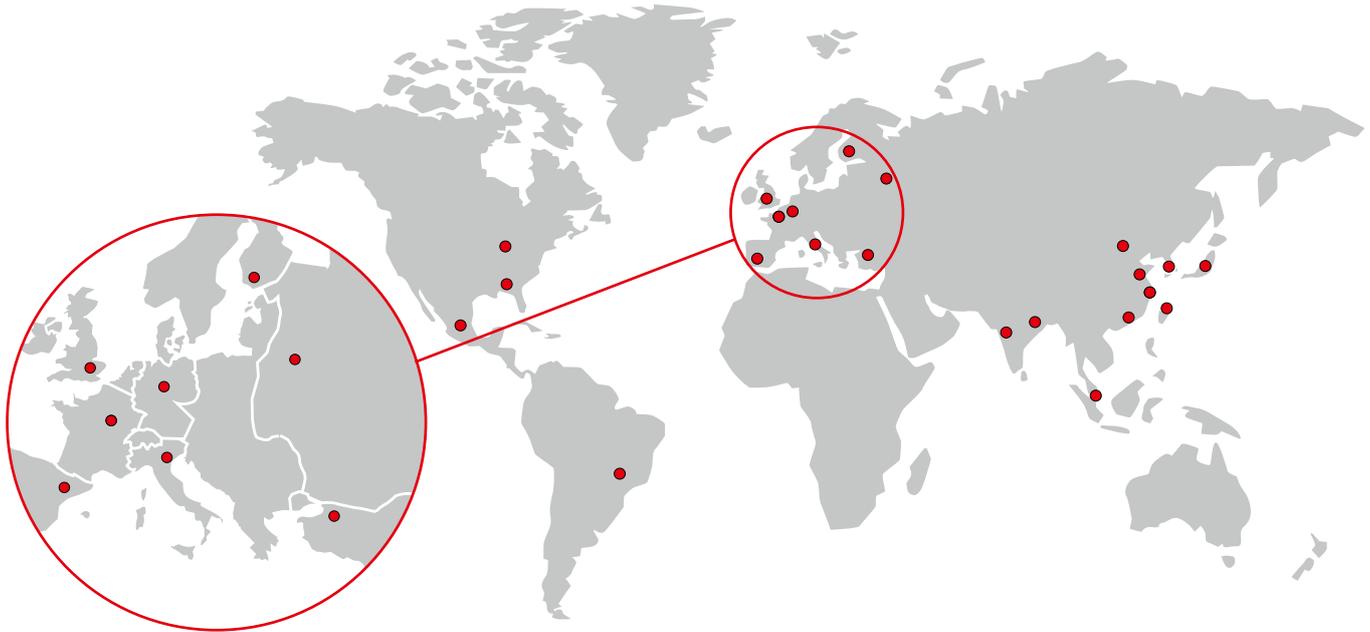- No downtime during material supply

INDUSTRIE 4.0 CONNECTIVITY
WIRELESS SENSOR CONNECTIVITY WITH OPC UA PROTOCOL

- Simple communication with standardized interfaces
- Remote access from any connected device

Innovation for Robot Automation

Automation at its best

ISRA VISION has been a leading supplier of high-performance quality inspection, robot guidance and production logistics systems for more than 30 years.

Our systems are used around the world in many different industries and applications. Our mission is to offer a comprehensive portfolio of standard solutions, covering all requirements along the process chain.

ISRA's experience and technological competence in the field of industrial image processing has been proven by thousands of successfully installed systems worldwide.

Benefits at a glance

Customers opt for ISRA's solutions for the following reasons:

- Our development activities are consistently aligned with our customers' requirements.
- We are continuously expanding our knowledge and expertise in all core areas of industrial image processing.
- Our customer relationships do not end with the delivery of new products. The Customer Support and Service Center provides comprehensive support for the use of your systems and helps you to increase your productivity – be it via our telephone hotline, remote service, on-site service, or our maintenance services.
- More than 900 employees at our sites in Europe, North and South America, and Asia are committed to your success.

ISRA VISION

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Belgium Tel.: +49 (2366) 930 00	**Italy** Tel.: +39 (0464) 490 603	**Brazil** Tel.: +55 (11) 347 611 32	**P.R. China** Tel.: +86 (21) 685 002 88	**Taiwan (R.O.C.)** Tel.: +886 (3) 250 01 48
Spain Tel.: +34 (93) 839 70 32	**UK** Tel.: +44 (1442) 261 202	**Turkey** Tel.: +90 (212) 285 97 45	**Japan** Tel.: +81 (45) 534 99 11	**India** Tel.: +91 98 23 16 24 55

Optimize your ROI with the technology leader ISRA

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