



Embedded Point Cloud Engines

TOUCH & AUTOMATE
Beyond INDUSTRIE 4.0

3D Robot Vision for Bin Picking

PowerPICK3D

Maximum Performance for Highest Flexibility

Multi-Stereo-QUAD-Camera-Technology



ISRA
VISION

Fastest Cycle Times, Maximum Performance

PowerPICK3D – NEW 3D Sensor for Bin Picking of Randomly Arranged Small Components

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

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

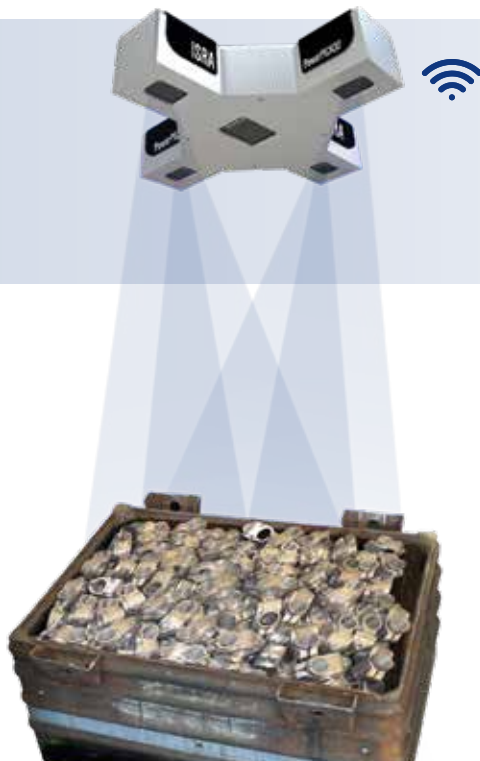


PowerPICK3D-600



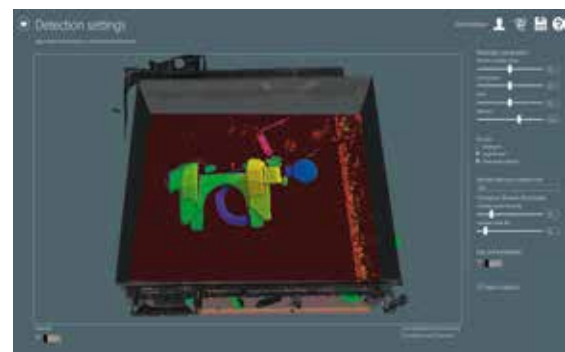
PowerPICK3D-1200

Multi-Stereo-QUAD-Camera-Technology



Generation of 3D Point Cloud

PowerPICK3D



Detection of Parts in the 3D Point Cloud

Configuration

- 4 cameras and projector
- Surfaces: metal (shiny, matt, coated) and plastic of different color
- Stationary or robot mounted
- Embedded processor multicore for maximum performance
- Integrated storage for sensor calibration data and auto download to software
- Different configurations according to picking task

Technology and Performance

- Guided workflow navigation
- Simple and intuitive setup
- Intelligent image processing tools
- Integrated plausibility checks
- Efficient processing of 3D point cloud
- Standard communication interface for all common robots
- Embedded PC for faster processing
- Wireless LAN embedded
- Industrie 4.0 OPC-UA



Performance and Accuracy with PowerPICK3D

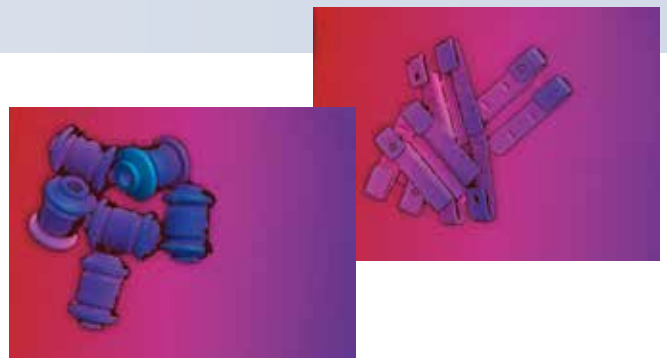
Advanced Technology

- High Speed scanning beyond 0.5 s
- Fastest cycle times
- Multi-Stereo-QUAD-Camera-Technology for the highest resolution and accuracy up to 0.5 mm and 8 megapixel resolution
- Robust bin picking of small parts with different and finest surfaces
- Intuitive and easy to use software
- Teach-in function from CAD model supports easy integration of new parts
- Advanced point cloud method
- Collaborative robots - Integrated robot communication protocol, commissioning with all major brands in the robotics industry
- Complete picking - path and gripper planning, for the highest possible precision



Path Planning & Gripping

Maximum performance
for industrial applications



High Precision Scan

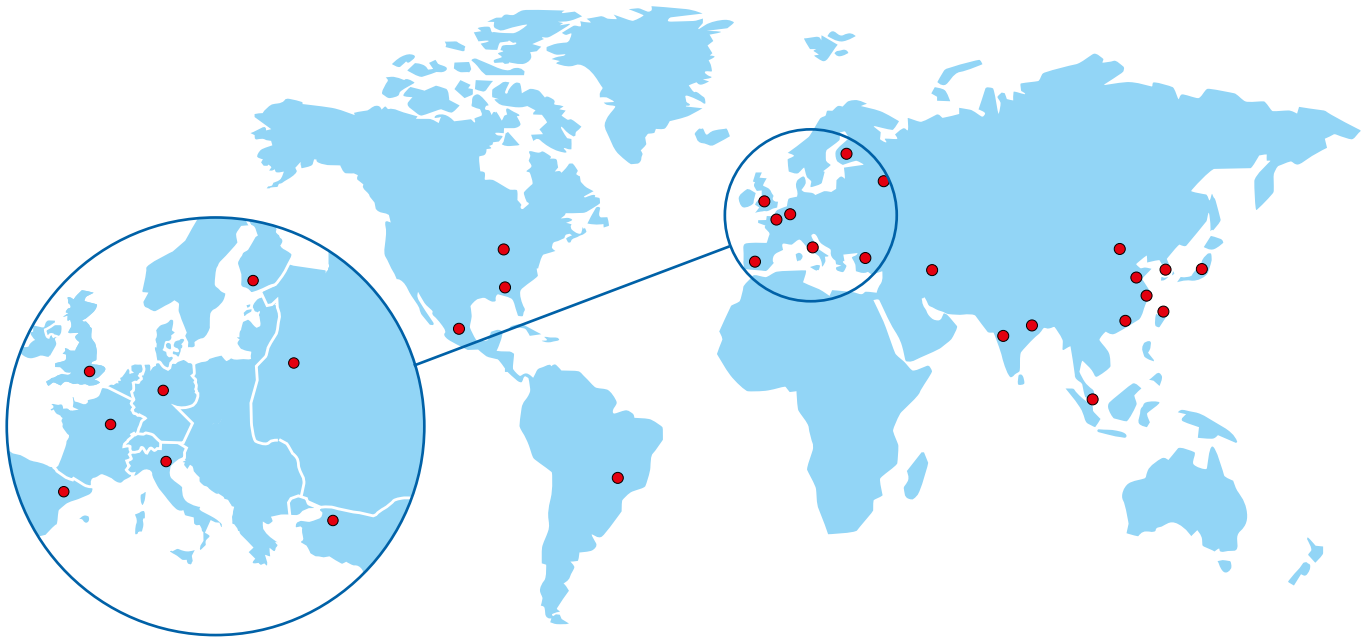
- Teach from CAD model
- Advanced point cloud method

Features

- Plug & Automate: Ready to use in HOURS with ANY ROBOT
- Fast and Robust 3D scan and detection in seconds
- Collision free robot path and gripper planning
- Robust 3D object detection of small and shiny parts
- Picking of several parts with only one scan
- Accuracy within millimeter range



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 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 800 employees at our sites in Europe, North and South America, and Asia are committed to your success.

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