



3D Robot Vision for Bin Picking
MiniPICK3D
Highest Accuracy for Smallest Parts

Multi-Stereo-QUAD-Camera-Technology

ISRA
VISION

Most Precise and Fast Bin Picking

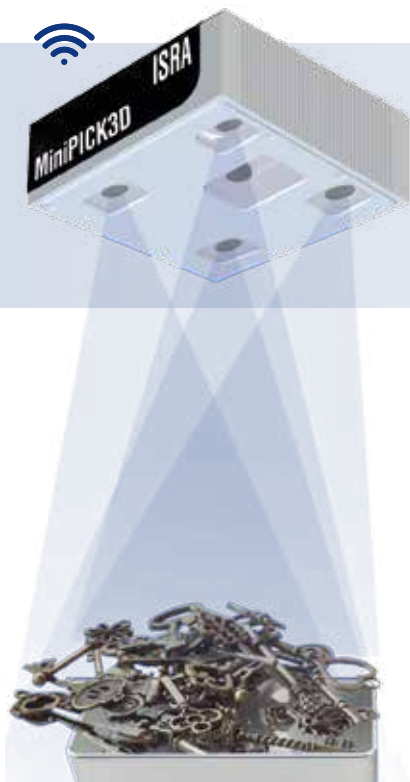
MiniPICK3D – NEW 3D Sensor for Bin Picking of Randomly Situated Smallest Parts

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.

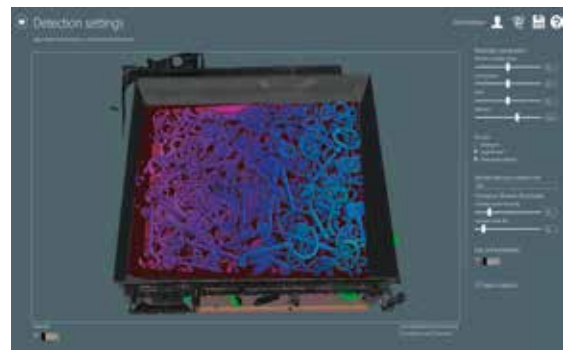
MiniPICK3D was developed to enable reliable bin picking of even smallest parts regardless of surface or material. Manufacturing operations can use this bin picking solution to significantly save costs and manufacturing time. Installation is easy and there is very little impact on floor space.



Multi-Stereo-QUAD-Camera-Technology



MiniPICK3D



Generation of 3D Point Cloud



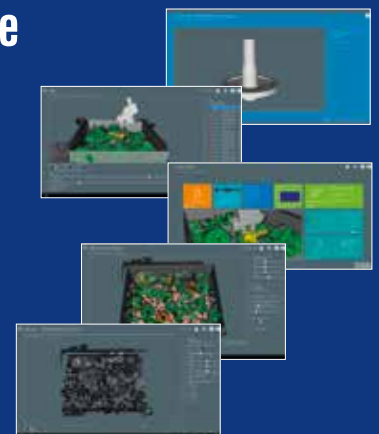
Detection of Parts in the 3D Point Cloud

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



for Smallest Parts with MiniPICK3D

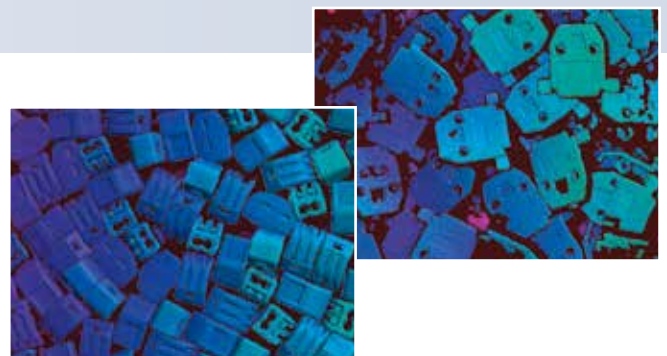
Advanced Technology

- Short cycle times
- Multi-Stereo-QUAD-Camera-Technology for the highest accuracy up to 0.2 mm and up to 4x5 megapixel resolution
- Robust bin picking of even the smallest parts, with robot path and grip planning for the highest precision applications
- Advanced point cloud method
- Outstanding part recognition for glossy, matte or coated surfaces, and the finest geometrical parts and structures
- Teach-in function from CAD model input supports easy integration of new parts
- Collaborative robots - Integrated robot communication protocol, commissioning with all major brands in the robotics industry



Path Planning & Gripping

• Embedded Sensor
• Maximum Performance for Smallest Parts

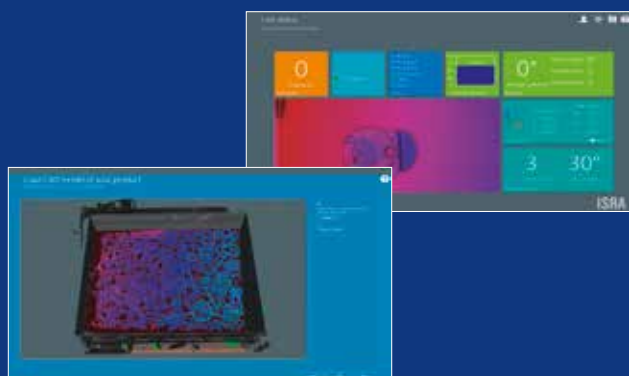


High Precision Scan

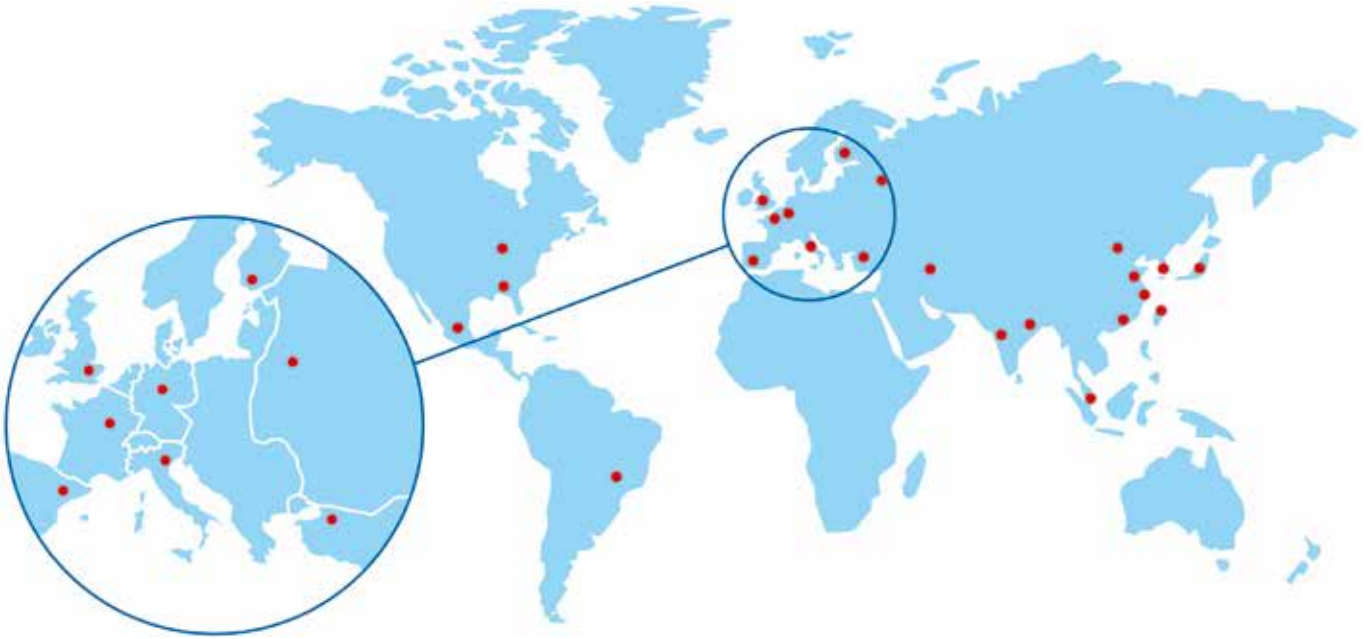
- Teach from CAD model
- Advanced point cloud method

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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