

# HANDOUG

Bin-Picking System

**PROCID**  
EXPERTISE & CONSEIL



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**PROCID**



Reliably bin-pick any part of any random shapes and sizes with our very latest world-class 3D vision technology !

Automated bin-picking is a recent innovative concept. Following the exponential growth of robotic in the industry, the need for automated handling of bulk parts has become a necessity.

An automated bin-picking system is a vision application software intended to locate bulk parts or elements, and transmit their position to a robot so that it can grab them.

Thanks to an innovative 3D calculation algorithm, HANDOGA™ will identify and select the one part that is the easiest to grab from a random bulk of items. It will take into consideration the container and gripper shape characteristics, in order to reliably avoid any collision by the robot.

HANDOGA™ will adapt to your production throughput.

At each picking cycle, HANDOGA™ will communicate to the robot both the position (x, y, z) and orientation (Rx, Ry, Rz) of the best grabbing point from the part that is the easiest to pick.

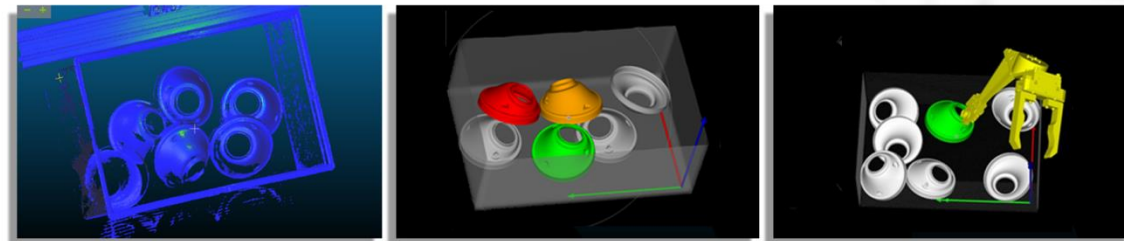
This is a 3- step process:

- Collect the image of the bulk content and construct a cloud points 3D representation.
- Identify and pinpoint all parts in the bulk container. This is done by matching the cloud points representation with the pre-loaded 3D CAD drawing of the item.
- Communicate to the robot the oriented position co-ordinates of the best grabbing point from the part that is easiest to pick.



*Independent from*

- the type of container
- the shape of the part
- the make/model of robot



*System characteristics*

- 3.2 millions pixels
- Resolution in X, Y from 0.16mm
- Resolution in Z from 0.90mm
- Core i7 processeur - 6th gen

*Key advantages :*

- Optimum picking point from the part
- Oriented picking of the part around 3 axes
- Recognise the gripper shape characteristics
- Avoid collisions, i.e. with container
- Painless setup thanks to intuitive user interface



HANDOGA™ has adopted an intuitive user interface, designed to provide full autonomy on its system, which allow the user to operate self-diagnostic, maintenance or evolve the application while in its own environment.



*User interface*

- Straightforward, intuitive utilisation
- Touch screen
- Multi-lingual
- System integrated with remote control

**HANDOGA P4**  
Average scanning volume  
350x250x300mm

**HANDOGA P3**  
Average scanning volume  
700x550x600mm

**HANDOGA P2**  
Average scanning volume  
1300x1000x1200mm

**HANDOGA P1**  
Average scanning volume  
2400x1800x2200mm



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**PROCID**  
EXPERTISE & CONSEIL

9, Rue du Jardin du Château  
54380 DIEULOUARD

Tél. : 33 (0)3 83 23 36 44  
Fax : 33 (0)3 83 23 37 39

contact@procid-fr.com  
www.procid-fr.com



Let's share our enthusiasm and ambition!