



PART LOCALIZATION FOR BIN PICKING

PICK, SORT AND PLACE BASED ON 3D AND COLOR
FEATURING ARTIFICIAL INTELLIGENCE

Robot guidance systems | 3D machine vision

SICK
Sensor Intelligence.

With the boom in e-commerce, warehouse throughput needs to scale up. A wide variety of items needs to be handled at high speed. Floorspace and worker availability are limited resources. Fully automated picking robots help to increase pick-and-place accuracy and speed with 24/7 uptime and only a small footprint.

SICK offers a high-precision robot guidance system for localizing items to be picked. A high-resolution, high-speed camera detects a wide range of objects of different shapes and colors.



Increased capacity



Less manual work



Faster order processing

→ www.sick.com/PLB

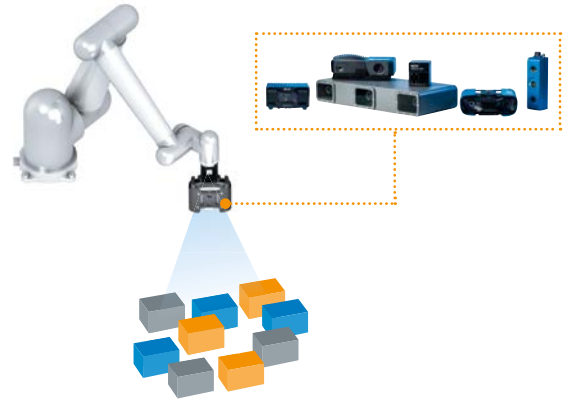
+ Automatic detection of all kinds of objects and colors

PLB 3D cameras

- Wide selection of best-fit cameras for your specific application, taking into consideration, for example, resolution, field of view, 3D technology (Stereo TOF) and 2D/color
- Robot-mounted for localization of items in multiple bins or static-mount for faster cycle times
- Accurate picking thanks to high-precision 3D point cloud

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Image Acquisition



+ Powerful, user-friendly software

Machine learning / AI

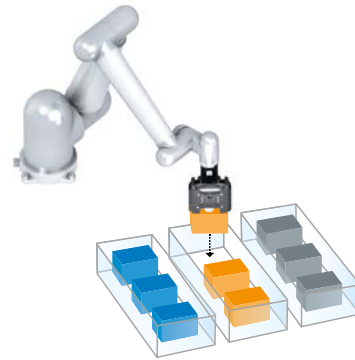
- Easy training of new scenarios using Deep Learning platform from SICK
- Classification of a wide range of objects

Software plug-in concept

- Modification of functions possible at any time
- Localization based on geometrical surface features; no CAD matching required

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Localization + Classification + Sorting



+ Easy robot programming

Robot programming

- Easy integration into many robot brands thanks to TCP/IP and Fieldbus support
- Robot interface modules available to shorten development time
- Autonomous robot motion planning thanks to integration with third-party library

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Picking + Placing

