

# MOTOSIGHT™ 3D BINPICK

## 3D VISION BIN PICKING SOLUTION

### KEY BENEFITS

Easy-to-use, simple setup

3D CAD data allows even complicated parts to be identified

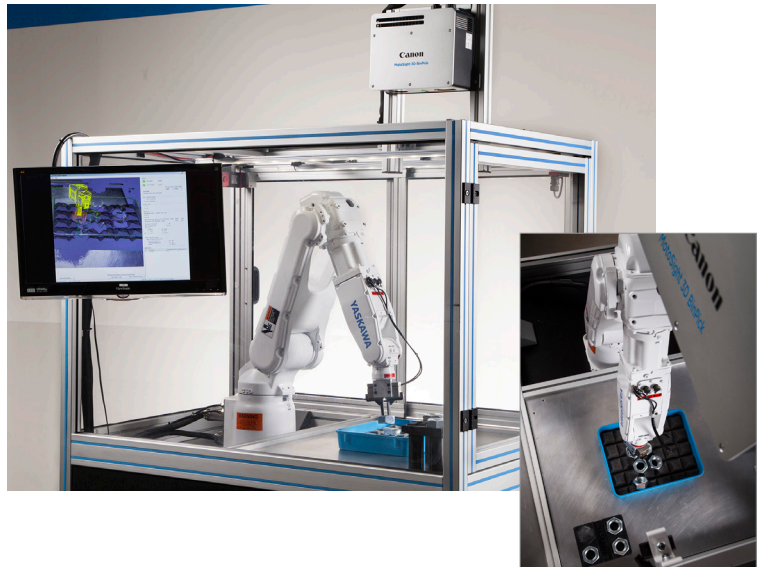
Lighting is integrated with camera

Accommodates various bin sizes

### CONTROLLERS

YRC1000

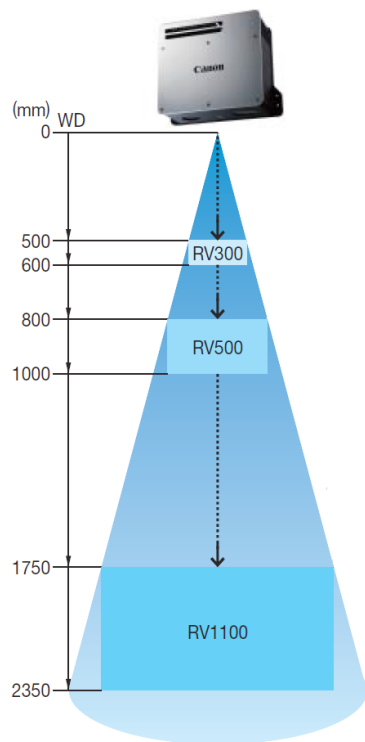
DX200



- Hardware/software solution to quickly and easily recognize and pick parts that are randomly placed in bins.
- Part training is accomplished by loading 3D CAD files (.step format).
- 3D CAD matching provides simplified, accurate part identification.
- Single step recognition:
  - Reduces implementation time
  - Programming is not required for part recognition
  - Reduces cycle time
  - Reduces need for multiple cameras
- Part location and orientation data is transferred to the robot controller via Ethernet.
- System automatically determines best pick solution.
- Flexibility to quickly and easily add or change parts (up to 200 part models supported).
- Utilizes high-performance Canon 3D machine vision system:
  - Advanced graphics recognition technology
  - Automatic adjustments improve quality
  - Lighting is integrated with camera
  - Three models available based on specific application requirements
- Complete solution includes:
  - Canon camera
  - Interface software for easy integration with Yaskawa robots
  - Rack-mounted graphics workstation
  - Calibration target
  - Automatic bin locator
  - Empty bin detection

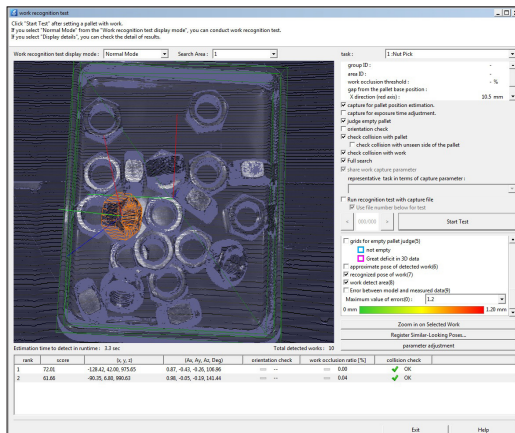
Note: Installation requires customer-supplied mounting fixture

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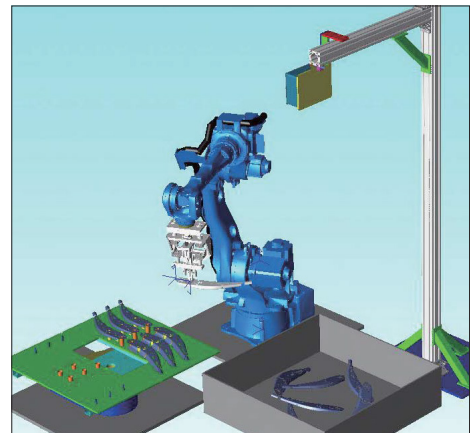


## APPLICABLE FOR A VARIETY OF PARTS AND BIN SIZES

- Three camera models available:
  - RV300
    - Max. bin size: 340 mm x 340 mm x 100 mm
    - Min. part size: 10 mm x 10 mm
    - Focal range: 500 mm x 600 mm
  - RV500
    - Max. bin size: 540 mm x 540 mm x 200 mm
    - Min. part size: 20 mm x 20 mm
    - Focal range: 800 mm x 1000 mm
  - RV1100
    - Max. bin size: 1160 mm x 1160 mm x 600 mm
    - Min. part size: 45 mm x 45 mm
    - Focal range: 1750 mm x 2350 mm
- Parts must have good distinguishing characteristics (> 3 mm) in order to properly recognize its orientation. Characteristics such as color, texture and translucency aid in part identification.
- This solution is not recommended for small parts with little to no physical distinction, or for deformable, soft, translucent or packaged parts.



Part Recognition



Example Configuration

## OPTIONS

- Slider Mounting Support – enables camera to move over second bin
- External Dictionary Creation – utilizes non-production PC to create recognition dictionary
- Batch Recognition – for applications requiring multi-section bins
- Consecutive Recognition Checking – provides ability to make multiple item picks from a single image
- Partial Work Recognition – enables part recognition and orientation from a partial image

**YASKAWA**

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