

**FANUC**  
Robotics

The

# Integrated Vision

Difference

A NEW LEVEL OF INTELLIGENT ROBOT PERFORMANCE



# iRVision™

Intelligent Robot Solutions

# The *iR*Vision Advantage

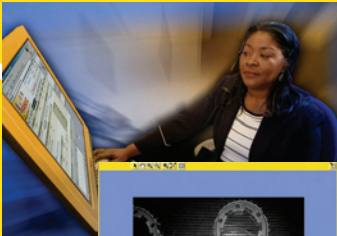
## Vision Ready Robots

FANUC Robotics' *iR*Vision is the first on-board robotic vision system, making all R-30*i*A robots "Vision Ready." Simply connect a camera, and you're ready to take advantage of the power of integrated vision. *iR*Vision's unique advantages include:

- Vision process executed from the main robot CPU eliminates costly additional hardware and communication delays
- Robust set of vision algorithms with unique capabilities to emphasize critical features and dynamically mask areas to ignore
- Handles real-world lighting variations with automatic exposure adjustment
- Fully-integrated robot command set for the lowest possible integration costs
- No PCs or additional processing hardware for the highest possible reliability

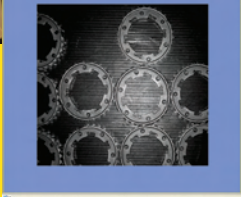


## Installing an *iR*Vision System is as easy as 1-2-3



### 1) Setup

Connect any PC with Microsoft Internet Explorer™ directly to the robot controller to set up, calibrate and train your application



### 2) Teach

Use the built-in vision commands to teach your robot – true seamless integration

```
1: VISION RUN_FIND 'PART';  
2: VISION GET_OFFSET  
   'PART' VR [1] JMP LBL [99];  
3: PR [1]=VR [1].OFFSET;  
4: JP [1] 100% FINE Offset,PR [1]  
   ;  
5: JMP LBL [100];  
6: LBL [99: no part];  
7: CALL NO PART  
8: LBL [100: End];
```

### 3) Run

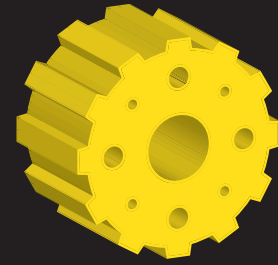
No PC is required during operation – view images and track production directly from the robot teach pendant





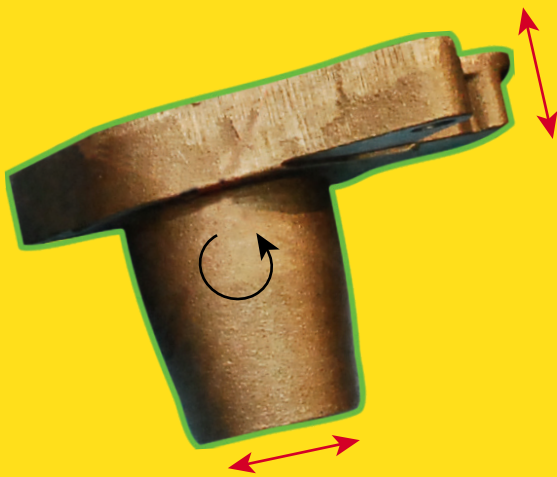
# 3D Vision Solutions

For A World That Is Not Flat

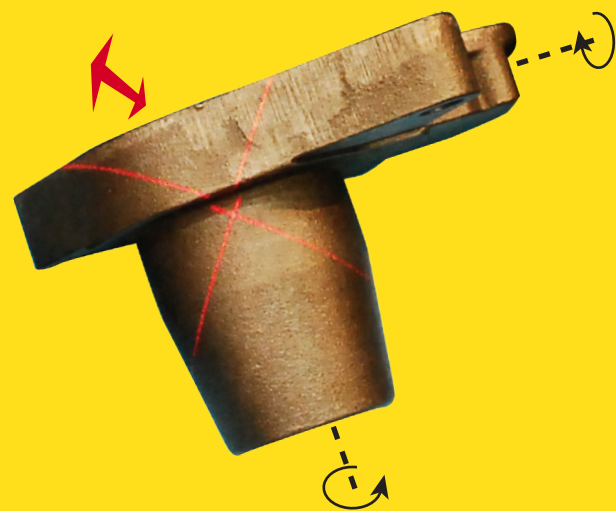


## How does FANUC Robotics' 3D Vision Work?

First the vision system uses features on the part to locate translation and rotation of the part.



Then the laser projects an image onto the part. This image is used to determine the height, pitch and yaw of the part.



Many robotic vision processes go beyond the capability of 2D vision systems. Parts do not lie flat, containers are difficult to locate, or other variations occur that make 2D vision impractical. For these applications, FANUC Robotics offers the only integrated 3D vision system. What does this mean to you?

- **No piecing together third-party hardware**
- **Complete system calibration in less than 15 minutes**
- **Menu-driven setup that is both easy to use and provides the flexibility to compensate for real-world variations**
- **Built up from field-proven experience in hundreds of successful 3D applications**

Just simple, reliable and accurate 3D robotic vision guidance.

# Successful Vision Solutions

Robotic vision provides the intelligence required for successful dynamic manufacturing processes and robust robotic applications. FANUC Robotics is committed to providing reliable and cost effective robotic vision solutions.

While other robot suppliers rely on third-party companies for their vision solutions, FANUC Robotics has a team of engineers dedicated to developing

integral vision products. These products provide a level of performance, reliability and cost effectiveness unmatched by third-party solutions.

With over 20 years of experience in robotic vision and thousands of successful vision installations, no other robot company can offer the accumulated knowledge base in robotic vision.



## Locate Cast Parts on Conveyors

Eliminate pallet conveyors and other expensive methods to convey and locate parts



## Depalletize Machined Parts

Use inexpensive pallets and separator sheets instead of costly formed dunnage



## Visual Tracking of Food Products

Identify and pick up products off of high speed moving lines



## Handle Metal Stampings

Replace hard automation locating devices with an accurate and flexible solution



## Error Proofing

Cost effective approach to check presence/absence, orientation, or verify critical features



## Bin Picking

Pick up loosely stacked parts or parts that can shift in transit



## Transfer Glass Sheets

Use vision to locate and pick up large panels in reusable racks or on belt conveyors



## Locate Large Tubs

Locate large parts that are difficult to fixture or vary from batch to batch

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**See how adding vision can improve your manufacturing processes** and reduce cost. Contact us today for a needs analysis!