

## Robotic Vision

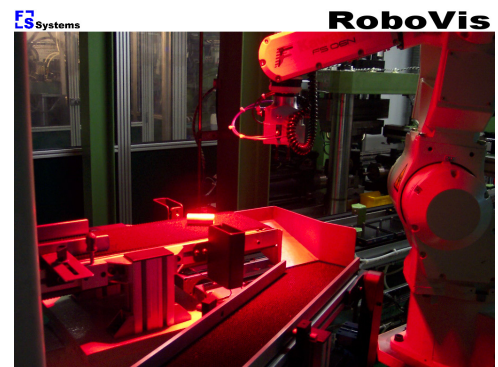
There are 2 distinct ways in which vision and robotics combine in an automation environment:

- Vision is used to locate parts or guide the robot
- The robot is used to present parts for vision inspection.

Both can have huge advantages over manual systems and FS Systems have solutions tailored to each.

## The Benefits

- Reliably automate transfers from one process to another or feed parts into a system
- Reliable, repeatable Inspection of 100% of your product
- Reduce costs and increase efficiency
- Simplify the automation by reducing or eliminating the need for lots of bespoke mechanical handling
- Cope with many different parts within one system
- Fast product changeover
- Work in harsh areas where it would be dangerous for an operator

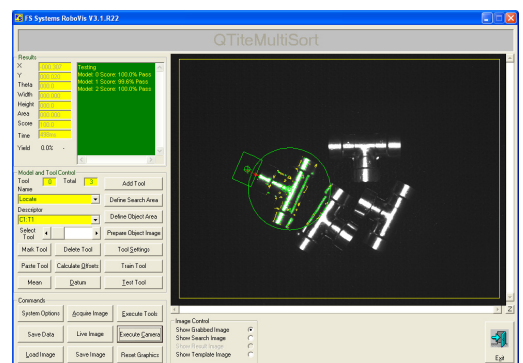


## Where does FS Systems fit in?

FS Systems have extensive knowledge in using robotic vision and have many successful installations running in 24/7 production in conjunction with major brands of robots.

FS Systems' **RoboVis** package has been designed specifically for robotic pick and place tasks and include a wide range of features to simplify implementation of such systems in manufacturing applications:

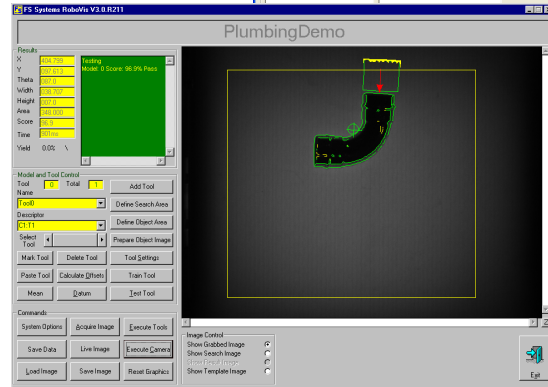
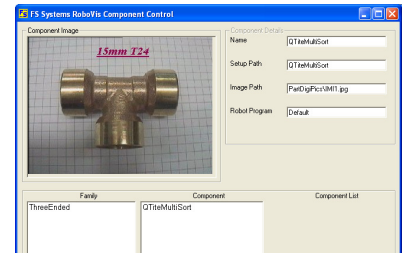
- Direct communication with the Robot controller (Ethernet, RS232 etc)
- Pass/Fail, X,Y, Angle, Part name or Robot program and many other attributes can be sent
- Built in calibration and datum for simple setup with the Robot
- Pick multiple parts from one image
- RoboVis works with randomly orientated parts meaning simple, flexible automation and feed systems can be used
- Detect collisions which could stop or damage the robot



# ROBOVIS

## RoboVis — 1000's of parts, no tooling changes

- Store thousands of set-ups for different parts
- Simple, graphical product selection enables changeover in seconds
- Inspections completed and correct coordinates issued in fractions of a second
- New products can be added within minutes
- Option to instruct the robot which program to run
- Cope with mirrored or handed parts
- Detect collisions which could stop or damage the robot
- RoboVis decides the best part to pick
- Automatic part identification and selection



## Lighting

Key to the success of the system is lighting, FS Systems use industrial, long-life, high brightness LED based lighting technology chosen to match the products and the environment.

## Inspection

Other tasks combining Robotics and vision can be accomplished by FS Systems' products **GenVis** and **RoboVis** or with Smart cameras from Vision Components or Vision&Control depending on the application. For example:

- Measuring,
- Checking features and attributes for completeness, presence etc
- Data-matrix code reading, OCR text recognition



FS Systems are the UK distributors for Vision & Control GmbH and Vision Components GmbH & members of the UK Industrial Vision Association- [www.UKIVA.org](http://www.UKIVA.org)



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