TrueView™

Vision Guided Robotics

MAIN APPLICATIONS
Material handling
Machine tending
Glueing and sealing
Press automation
Powertrain assembly
Body-in-white

TrueView transforms robotic manufacturing processes

TrueView vision guided robotic (VGR) systems see and react to changes within the industrial work environment. TrueView enables ABB robots to precisely locate the grip points of a disoriented object within a 3D space.

TrueView makes robot vision simple

TrueView systems include the ABB robot, vision hardware, the eVisionFactory™ (eVF) software platform and the ABB standard specifications in the areas of robot dress, mechanical and electrical integration, and robot-vision programming modules.

The eVF software platform includes unique technologies such as AutoCal for easy calibration, and AccuTest and AccuTrain for quick and reliable integration. eVF is recognized by leading manufacturers as the most reliable and repeatable VGR software for ABB robots.

Integrated ABB vision is low maintenance and reliable

With over 150 systems installed and seven years of continuous design innovations, TrueView is the most reliable and robust vision solution for ABB robots.

Vision guided robotics provides savings

- Manages variation in part styles and location.
- Eliminates costly precision fixturing, mechanical part crowding and dunnage.
- Automates operations that previously required human interaction.
- Increases “Up-Time” and eliminate robot crashes by seeing the part on racks.
- Enhances quality via basic inspection and/or part identification.

TrueView™

Vision Guided Robotics

The TrueView eVF application platform

Xi2D™

- Single or multi camera 2D information in 3 degrees of freedom (x, y, Rz)

IDM2.5D™

- Single camera information in 4 degrees of freedom
- (x, y, z, Rz)

SC3D™

- Patented single camera 3D technology provides a full six degrees of freedom for rigid parts (x, y, z, Rx, Ry, Rz)
- Resilient to lighting changes and imperfect object appearances through advanced feature recognition technology
- Extremely fast set-up and calibration processes
- Robust and reliable cable and hose management system with super high flex cables

SR3D™

- Surround 3D imaging combines information from multiple cameras viewing large parts from different viewpoints (e.g. car bodies, air plane wings)
- 3D position of parts in full six degrees of freedom

SL3D™

- Uses structured light (e.g. laser) stripes to scan part surfaces to provide added feature visibility
- Provides the 3D position of rigid parts with smooth, featureless surfaces, in full six degrees of freedom

TECHNICAL DATA, TrueView Vision Systems

SUPPORTED ROBOT TYPES	
Robot Controller	IRC 5, S4C+, S4C
Robot Type	All IRB Arms

ROBOT CONTROLLER CONFIGURATION REQUIREMENT	
Hardware	Analog/Digital Combi Board
Baseware	Version 3.2 or higher
	PC Interface

PERFORMANCE	
Vision Accuracy	+/-0.5mm
Vision Processing Time	0.5 –1.5 seconds
Typical Part Movement	+/-15 degrees, +/-300 mm

CAPABILITY	
Camera	Analog High resolution
	Analog Standard resolution
	Analog High Speed
Lens	Any size
Lights	LED –Multiple sizes
Structured Light	Yes

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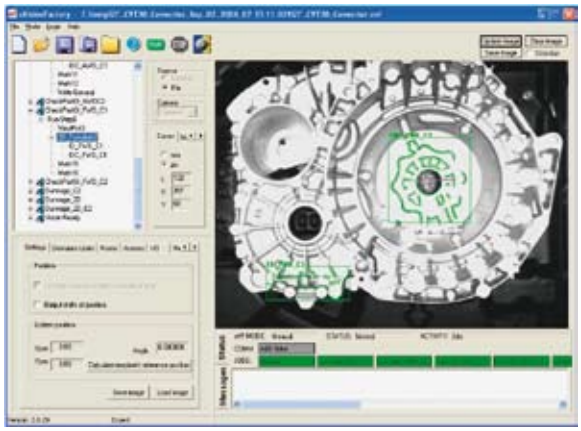

True View Function Package Features

- Easy to use TrueView eVF runtime software license
- Extended robot cabinet with factory monitor
- LED Lighting system, mounting brackets and power supply
- Camera, lens, lens protector, and protective camera enclosure
- Super high-flex, 4 part camera and light cables
- Cable management and robot dress package
- Vision computer and frame grabber
- TrueView API (with easy to build vision robot programs)
- TrueView Installation & Commissioning Manual
- TrueViewService Manual
- TrueViewStandard Drawing Package