EPSON CV2 Vision

NEW

EPSON®
EXCEED YOUR VISION

Take Vision Guidance to the Next Level

- Industry leading ease of use for vision development

- Integrated Development Environment for Robot & Vision

- Powerful tools for vision guidance applications

- Fast vision processors ensure fast find rates

- Point and click user interface

- GigE and USB cameras supported

- Up to 5MP high resolution cameras available

- Color cameras available for color applications

Fast, Powerful, Easy to Use Vision Solution

Epson is the leader in ease of use for both robot and vision guidance development. Our Vision Guide software is well known in the industry for providing a powerful yet easy to use point and click interface for developing vision guidance based robot applications. The CV2 vision systems provide top performance processing for applications that need to run fast. With speeds up to 8x faster than our Epson CV1 vision systems, Epson CV2's provide tremendous processing power to help reduce cycle times. Also, as an integrated part of our EPSON RC+ development environment, Epson CV2 systems with Vision Guide help reduce development time for vision guidance applications.

At the heart of the CV2's Vision Guide software is the unique object based point and click interface which allows users to easily define ROI's and apply vision tools by simply dragging and dropping objects onto the image display area and then setting associated property values as required. Objects are strung together in a sequence to build a vision application quickly and easily. For example, a Geometric Search Tool can be used to find specific points of interest on a part and then line tools could be "attached to" the Geometric Search Tool results to then determine the distance between the 2 points for inspection purposes. Camera coordinates from the found location are automatically converted to robot coordinates and the robot then moves to pick up the part using those coordinates including X, Y position and rotation.

Vision Guidance is made easy through a variety of built-in calibrations for fixed and mobile cameras that work with all of the wide variety of Epson Robot models. There are no communications issues from robot controller to vision system, just one development environment, a point and click interface and powerful tools to make robot guidance applications easy. Let us show you how with your next application.

EPSON Robots
Built to Perform

Built to Perform

EPSON CV2 Specifications

Vision Tools	
Vision Find Tools	Geometric Search, Polar Search, Normalized Correlation, Blob Analysis, Edge Finder, Line Finder, Arc Finder
Vision Inspection Tools	Line Inspector, Arc Inspector, Defect Finder
Vision Construction Tools	Frames, Lines, Points
Other Vision Tools	Color Match, Code Reader (barcodes and 2D codes), OCR, Histogram, Statistics
Image Operation Tools	**Morphology:** Open, Close, Erode, Dilate **Convolution:** Smooth, Sharpen, Horizontal Edge, Vertical Edge, Edge Detect, Thin, Thicken **Image Manipulation:** Rotate, Flip Horizontally, Flip Vertically, Flip Both Horiz/Vert **Other:** Color Filter, Subtract Image, Binarize
Robot / Camera Calibrations (all wizard based)	Mobile (Mounted on J2, J4, J5, J6), Fixed Upward, Fixed Downward, Stand Alone

Available with 2 Different Controllers

RC700A Controller

RC90 Controller

Camera Info	GigE	USB 2.0
# of Cameras	Up to 4	Up to 2
Camera Cables	High Flex Ethernet GigE (5M)	High Flex USB (5M)
Camera Dimensions (no lens)	29(W) x 54(D) x 29(H)	30(W) x 39(D) x 30.5(H)
Camera Weight (no lens)	90g	50g
Camera Mounting Options	Mobile, Fixed Upward, Fixed Downward	
Lens Type	C Mount	
CV2 System Dimensions	232(W) x 184(D) x 77(H) *Including Feet	
CV2 System Weight	2.1Kg	
Operating Temperature	5 to 40 deg. C	
Power Voltage/Rated Current	9 to 24 VDC / 11.57A (at 19V DC) to 9.16A (at 24V DC)	
Certifications	CE, RoHS	
Communications Interface	GigE Ethernet (1000Mbps)	
Available Controllers	RC700A, RC90	
Options	Lens Kits, Camera Extension Tube, Power Supply, Robot Camera Brackets, Additional Cameras (with high flex cables)	

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Camera Resolution	640x480 (0.3 MP)	1280x1024 (1.3 MP)	1600x1200 (2 MP)	2560x1920 (5 MP)
GigE Monocrome Cameras	●	—	●	●
GigE Color Cameras	—	—	●	●
USB 2.0 Monochrome Cameras	●	●	—	●
USB 2.0 Color Cameras	—	●	—	●