



ROBOTIC VISION
TECHNOLOGIES

Automaker Study Finds eVisionFactory Most Accurate 3D Guided Robotics Vision System

Silver Spring, Md. – Feb. 7, 2018 — Robotic VISION Technologies Inc. (RVT) announced today that its eVisionFactory (eVF) software platform is the most accurate and precise vision guidance solution among global leaders according to a recent study by one of the world’s largest and most technologically advanced automakers. RVT outperformed competitors across all six degrees of freedom, performing 10 to 100 times more accurately than any other platform.

“Determining all six degrees of freedom accurately is one of the greatest challenges in the field of vision guidance for robotics,” said RVT VP, engineering Paul Weidinger. “Our platform enhanced accuracy beyond either the camera resolution or the robot itself, showing the critical nature of software in the success of robotics in all fields.”

The study included a series of tests to gage the repeatability and reproducibility (gage R&R) of positional calculations, an industry standard method that objectively compares the accuracy between vision systems. These tests included measuring the ability of a robot to find a vehicle part, both when the part was moved to multiple known positions between tests and when the part was left in place between tests. In both series of tests, eVF scored top marks for all six degrees of freedom.

The difference in accuracy is unusual in the space, but not a surprise to long-time users of the platform. The automaker’s vision expert said, “We have been running eVF since 2003, and some of our vision programs haven’t changed in ten years! Testing the latest version of the software shows it to be the most accurate solution available,” he said.

As a result of the study, the automaker has purchased and is in the process of integrating multiple eVF systems in the manufacturing of powertrain and transmission systems for its best-selling brand of automobiles.

Outlined in the chart below, RVT’s two tests displayed a higher accuracy than every other vision system studied in every category:

	X	Y	Z	rX	rY	rZ
Max Deviation Requirements	±3.0mm	±0.53mm	±0.3mm	±0.1°	±0.1°	±0.1°
Six Sigma Results Summary						
	X	Y	Z	rX	rY	rZ
	3.90	1.89	4.33	2.03	1.40	1.05
	2.40	3.45	4.31	0.37	0.41	0.07
	0.24	0.17	0.30	0.02	0.04	0.03
	0.09	0.07	0.37	0.12	0.10	0.02
	0.06	0.10	0.42	0.11	0.13	0.02
RVT eVF Type 1	0.03	0.07	0.03	0.03	0.01	0.00
RVT eVF Type 3	0.03	0.07	0.05	0.04	0.03	0.01

RVT's results. Smaller numbers mean higher accuracy. Other competitors redacted by the automaker for confidentiality.

For more information on the study and the test results, please visit <http://roboticvisiontech.com/2018/01/25/automaker-study-finds-rvts-evisionfactory-accurate-3d-vision-guided-robotics-vision-system-market/>.

About Robotic VISION Technologies Inc.

Robotic VISION Technologies Inc., a privately held machine vision software company, is a recognized leader in the field of Vision Guided Robotics (VGR™). RVT's 2D, 2.5D, and 3D vision guidance software platform allows robots to “**See, Think, Do.**” RVT's software and technologies enable image recognition, machine vision, machine learning, and robot guidance processes in industrial and non-industrial markets. RVT has recently developed a 3D vision guidance system for the collaborative robot market and has been designated as a Certified System Integrator by Universal Robots. The company's main 3D vision solution was honored with the Henry Ford Technology Award as well as the BAE Chairman's Award for outstanding service. Major manufacturers using RVT's products include Ford, General Motors, Chrysler, Honda, Toyota, Nissan, Harley-Davidson, Boeing, and Johnson & Johnson. RVT's eVF™ software platform is installed in hundreds of systems worldwide and operates every day controlling over one-half billion dollars of capital equipment. RVT holds ten patents with ten more pending for its award-winning technology.

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