

Vision spectra

www.Vision-Spectra.com

Quarterly newsletter from Photonics Media featuring the latest advancements in and applications for vision systems – from sensors to software. Manage your Photonics Media membership at Photonics.com/subscribe.

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3D Scanning Method Captures Fast-Moving Objects Without Motion Artifacts

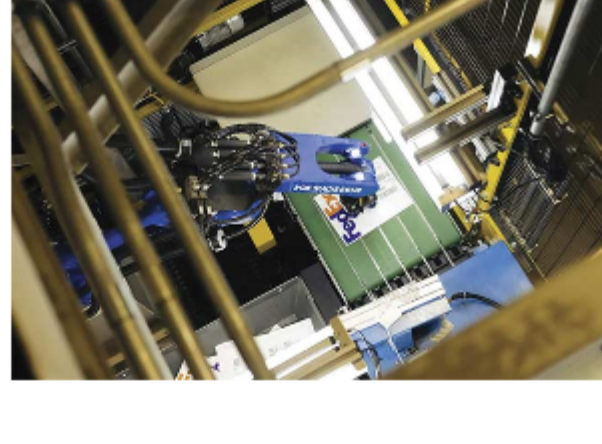
Logistics can spell the difference between success and failure in business. Receiving, storing, inspecting, sorting, packaging, labeling, shipping — all of these steps need to happen quickly to meet rising customer demands and deadline expectations. Maximizing throughput and ensuring process safety and reliability by properly optimizing logistics operations is therefore indispensable.



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Vision Elevates Robot Performance in Logistics

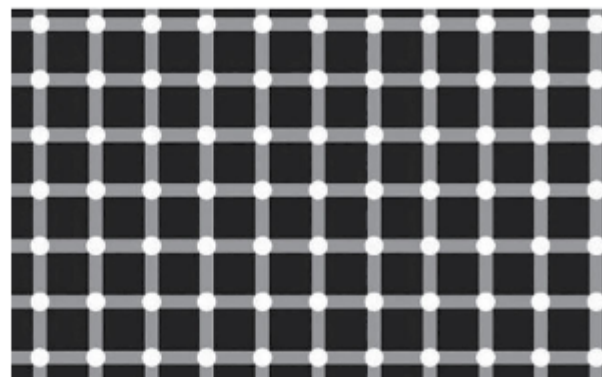
With a range of newly available and already established imaging modalities, vision guidance is helping to drive a steady ascension of robot capabilities in the logistics sector.



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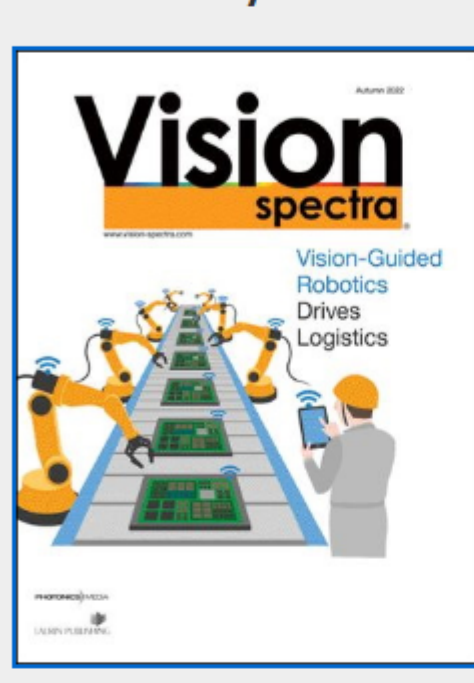
AI as a Decision-Support Tool for Human Operators

For manufacturers specializing in short-run or seasonal products, it is often too costly to fully automate inspection processes. In such cases, AI-based visual inspection tools can help to support decisions made by human operators.



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About Vision Spectra



Vision Spectra is a global resource geared for the vision community, with real-world case studies of vision in action, comprehensive feature articles, and columns from experts in the field examining the trends that enable Industry 4.0.

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Featured Products & Services



Mini Lenses for Robotic Precision

Marshall Electronics Inc.,

Optical Systems

Marshall Electronics Optical miniature lenses provide precise robotic, machine vision positioning X, Y, Z. Robotic and machine vision products cannot perform to specification without high and consistent optical performance. Our high quality glass element aluminum housing lenses, with and without glass filter produced in...

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Baumer AX. AI Ready Smart Camera with NVIDIA Jetson Modules

Baumer Optronic GmbH

Baumer presents the AX smart cameras, its first industrial-grade smart cameras that combine the market-leading NVIDIA Jetson modules with powerful Sony CMOS sensors to create a compact, flexible, and freely programmable image processing platform for AI applications.

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C-Mount Lenses

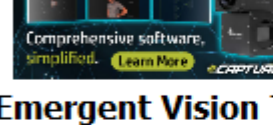
Schneider Optics Inc.,

Industrial Optics

This JADE family of C-Mount Lenses covers a 1.2-in. format (19.3-mm image circle) with a broadband antireflection coating that allows transmission from 400 to 1000 nm.

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eCapture Pro Comprehensive Software

Emergent Vision Technologies Inc.

eCapture Pro provides end users a graphic interface for easy system integration, with no software coding or system design knowledge required. It also provides camera setting flexibility, advanced preview and recording capabilities, synchronized capture to microsecond accuracy, and more.

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Infinity Wide View Microscope Unit

Seiwa Optical America Inc.

Seiwa Optical's MS-150-TC (D)25, MS-200-TC(D)26.5, MS-400-TC(D)26.5 is an infinity wide view microscope unit series for visible to infrared wavelength. The standard unit is available in 18 variations depending on the focal length (magnification), camera mount, and with or without coaxial epi-illumination.

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Alluxa Ultra Series Filters

Alluxa

Alluxa Ultra Series Filters, including Narrowband, Dichroic, UV, IR, and Notch filters, provide the highest performance optical thin film solutions available today. For example, the Ultra Series Flat Top Narrowband filters offer the narrowest bandwidths and squarest filter profiles in the industry.

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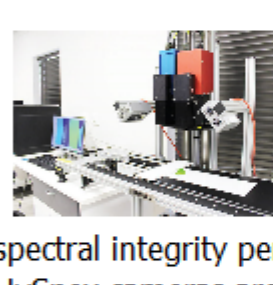
GigE Cameras Now with UV Sensitivity

Balluff Inc.

The MATRIX VISION, a brand of Balluff, mvBlueCOUGAR camera portfolio now includes UV-sensitive versions, extending the range of applications where the GigE Vision cameras are well suited, including the detection of transparent materials.

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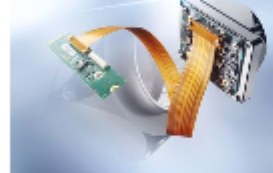
HySpex Hyperspectral Cameras

HySpex

HySpex offers exceptional spectral integrity per pixel for all applications. All HySpex cameras are delivered with calibration traceable to NIST and PTB standards. HySpex can offer seamless integration of HW and data processing SW, providing their users with unparalleled capability not only to collect high-quality data but...

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Peak Performance for Embedded Vision Applications

MATRIX VISION GmbH

With the new series mvBlueNAOS4, MATRIX VISION complements the embedded vision portfolio with models that are especially designed for the fast sensors of the Sony Pregius S series. These sensors achieve both high image quality with small pixel size and high transfer rates. The mvBlueNAOS4 uses the direct way for image transfer: PCI Express. The interface is a standard used in all PC systems as well as in embedded processor platforms.

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Remote Sensing

Photonics Media

From space and the sky around us to firmly on the ground, remote sensing is providing an important view of our surroundings that can't be seen with our eyes alone.

A variety of optical technologies are having an impact on applications as diverse as agriculture and defense, weather and climate, and are now part of the payload on satellites, planes and drones, and riding in and even guiding vehicles on the highway.

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More Vision News

VISION to Highlight Innovations in Deep Learning and Embedded Vision

VISION 2022 is set to take place Oct. 4-6 in Stuttgart, Germany, where the industry's leading companies will unveil the latest innovations in the vision systems and components contributing to advancements in automation and Industry 4.0.



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Hardware-Agnostic Algorithm Corrects 3D Printing Errors

A machine-learning algorithm developed by researchers at the University of Cambridge quickly detects and corrects 3D printing errors — even in previously unseen designs or unfamiliar materials. The algorithm can be easily added to new or existing machines to enhance their capabilities. 3D printers using the algorithm could also learn how to print new materials by themselves.

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Quantum Artificial Vision System Shines on Production Line

Multiverse Computing, a developer of quantum computing solutions, and IKERLAN, a Spain-based center supporting the transfer of technology, developed a quantum-enhanced kernel method for classification on universal gate-based quantum computers, as well as a quantum classification algorithm on a quantum annealer.

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Features

Filters for SWIR Sensors, Inspection of CMOS Sensors, FPGAs, and more.

Photonics Media is currently seeking technical feature articles on a variety of topics for publication in our magazine Vision Spectra. Please submit an informal 100-word abstract to visionspectra@photonics.com, or use our online submission form www.photonics.com/submitfeature.aspx.



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