



Neocortex® Goods to Robot Cell Fuses Best of Collaborative and Industrial Robots for Order Fulfillment and Material Handling Applications.

Universal Robotics® introduces pre-engineered robotic cell embedded with artificial intelligence that fuses the best of collaborative and industrial robots; adds Mathew Hein, a Silicon Valley high technology investment veteran, to its Board of Directors to accelerate expansion.

NASHVILLE – August 9, 2016. Universal Robotics, the software company that developed Neocortex artificial intelligence which gives robots and machines human-like flexibility, today announced availability of industry’s first complete drop-in robotic workcell solution. It blends the fast integration and ease of use of collaborative systems with the speed and capacity of industrial robots. It’s ideal for automating any high-mix application where manual labor is currently required, whether random bin picking, order fulfillment, machine tending, or line loading.

The Neocortex Goods to Robot Cell is built on Universal’s Neocortex and Spatial Vision® 3D software platform, and enables collaborative interaction at industrial speeds. It handles a diverse mix of objects from machined parts to consumer products at 800 to 1,600 per hour.

“Customer interest, even prior to release, has been outstanding,” commented Hob Wubbena, Vice President at Universal Robotics. “Until now, no one has been able to combine both high speed handling with high variability of thousands of items, and deliver it in one easy-to-use robotic cell.”

The complete workcell on a human-scale footprint provides two immediate benefits. It is drop in place and operational in a day, and it’s inexpensive. Payback can be as fast as 7 months.

“The high cost of traditional system integration has left many customers without a reasonable ROI when compared to simply using manual labor. Our patented Neocortex software learns variability in real time, providing customers a robust and scalable solution that grows and adjusts with their changing supply chain needs.” said Universal co-founder and CEO David Peters.

Mathew Hein Addition to Board of Directors

As part of Universal’s strategy for accelerating growth and expanding market share, the company has added Silicon Valley veteran, Mathew Hein, to the Board of Directors. Mr. Hein has focused on the Internet-of-Things, machine learning, sensors & semiconductors, software and systems over his 20+ years advising technology companies as an investment banker, investor and Board member. He has completed over 100 technology financing and M&A transactions.

“Great technology companies combine deep domain expertise and innovative technology to deliver great products for large markets,” said Mathew Hein. “Universal’s Neocortex machine learning and Spatial Vision 3D software platform turn high performance industrial robot hardware into highly flexible solutions for dynamic environments. By delivering fully integrated plug-and-play products for common logistics and material handling applications, Universal is dramatically



expanding the opportunity for automation in distribution, manufacturing, and other industrial applications.”

Fusing the Best of Collaborative & Industrial Robots

The Neocortex Goods to Robot Cell is a complete work cell scaled to a human form factor in a small footprint, enabling retrofitting into manual processes. The cell includes artificial intelligence, 3D vision guidance, an industrial PC, sensors, an industrial robot, gripper, safety barriers, communication protocols, and an human machine interface. It can interface to WMS or storage/retrieval system software, and provide operational metrics at the cell via a rugged tablet or stationary panel-mounted screen. Universal maintains the Cell through remote diagnostics, software upgrades, as well as supports and services over its life, providing one point of contact.

Unprecedented Flexibility

Neocortex has unparalleled real-time recognition – beyond what 3D vision guidance can do on its own. It identifies a diverse mix of boxes, bottles, tubes, bags in a variety of colors, with or without labels. There is no limit to number of parts, items, SKUs or products it can handle. Also, there is no speed penalty if it has learned how to handle 10,000 items or only a dozen. The high speed 6-axis robot can pick incoming products from a wide range of totes, bins, trays, cases and place them into shipping bags, boxes, or cartons.

High Speed

With this broad flexibility comes industry-leading throughput of 800 – 1,600 picks per hour, improving accuracy and throughput over semi-skilled labor. The Cell increases throughput of manual handling of mixed items by up to 50%.

Low Cost and Affordable, Lease Option

The Cell’s low cost includes everything – the Cell, Universal’s setup, optimization, and easy operator training. The average operating cost is as low as \$4/hour, with a payback as short as 7 months. Both purchase and lease options are available, as well as discounts for volume purchases or partners. It saves up to 80% over life of Cell compared to manual labor, and includes continued performance improvements to the software platform.

Easy to Deploy

The space-saving Cell can be placed into a human-scale workspace by a forklift, and easily relocated if a process changes. After unpacking, the Cell is running within a day, requiring only power, compressed air and an Ethernet connection to be operational. It integrates easily with manual processes as well as factory/inventory systems, automatic storage and retrieval systems, carousels, mini-load or shuttle inventory storage systems. It is re-trainable, so your investment is maximized for the long term, whether working alone or part of a larger process. The robot, sensors, and communications can be changed to accommodate specific customer needs.

It’s the Way the Real World Works™

Neocortex excels in unstructured and semi-structured environments. Chaotic material flow and random orientations of products is the norm, not the exception. Its smart brain using sensing to

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interact with the robot, enabling both adaptive picking for heavier and/or larger items and adaptive motion control to respond to different size of containers and items.

About Universal Robotics

Universal is an artificial intelligence software company that uses sensor input to allow machines to see, react, and learn with human-like flexibility. Its Neocortex artificial intelligence and Spatial Vision 3D software platform works with a wide range of robots and sensors. Neocortex technology was invented for NASA twelve years ago and developed for industrial use by Universal starting in 2008.

Contact

Hob Wubbena, VP

David Peters, CEO

info@universalrobotics.com

615-366-7281

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