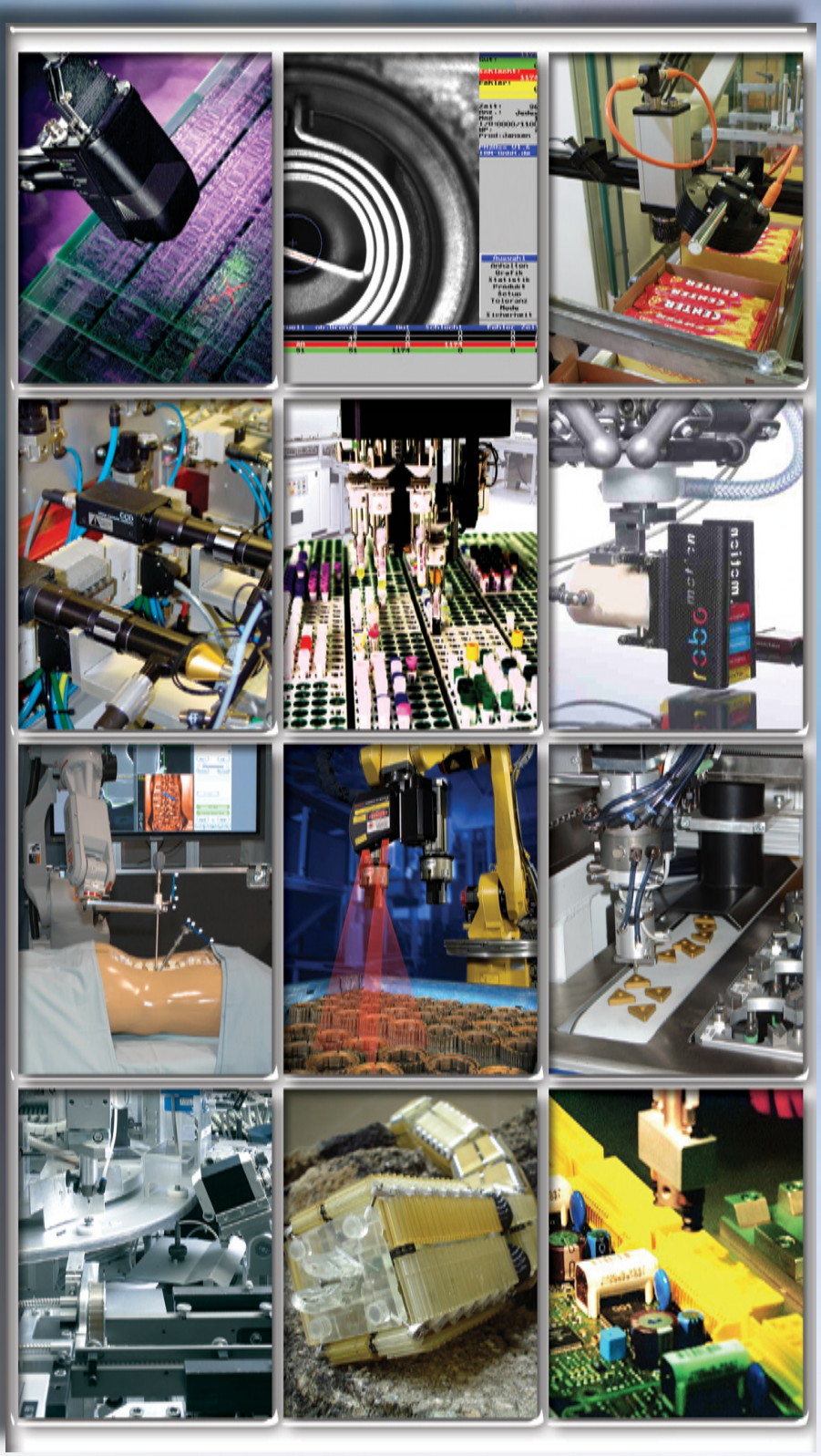
The World's Leading Robotics & Vision Event



INTERNATIONAL ROBOTS & VISION SHOW

Strengthen your company with

- Leading Edge Products
- Practical Solutions
- Breakthrough Technologies
- Proven Expertise

...all under one roof!

These are just some of the products you'll find:

Industrial Robots	Cameras
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If you work in one of these industries, this is the best show to find robotics and machine vision solutions:

Electronics	Consumer Goods
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Paper & Printing	Off Road Vehicles
Semiconductor	Plastics
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Defense	Telecommunications

STRENGTHENING INDUSTRY

INTERNATIONAL ROBOTS & VISION SHOW

SEPTEMBER 27-29, 2005
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See nearly 600 of the world's leading assembly suppliers with hands-on displays of the latest test & inspection, automated assembly systems, workstations, hand tools, materials/parts handling equipment and more. For more information, visit www.atexpo.com.

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The easiest way to make travel arrangements for the show is also the most flexible and economical. Hotel rates and airfare discounts have been negotiated for us by Travel Planners. Visit www.robots-vision-show.info and choose "housing information" to access Travel Planners or call (800) 221-3531 or (212) 532-1660.

Location, location, location!

The International Robots & Vision Show takes place at the Donald E. Stephens Convention Center in Rosemont, just minutes from O'Hare Airport. It's surrounded by great hotels, nearby restaurants and entertainment options (including easy access to the "L" train to downtown Chicago), and ample parking.

SIAS 2005

4th International Conference
Safety of Industrial Automated Systems
Chicago, Illinois, USA
September 26-28, 2005

SIAS 2005 will cover a broad spectrum of industrial safety issues. The theme is "Machinery Safety in a Global Marketplace." Presentations will cover risk assessment, practical applications, training and supervision, protective devices and systems, control system design, standardization, innovation, and the future. All sessions will take place at the Hyatt Regency O'Hare, adjacent to the Donald E. Stephens Convention Center. A separate registration fee is required—for the complete program and fees, see www.sias2005.org or call Jeff Fryman at (734) 994-6088. All SIAS 2005 conference registrants receive free admission to the International Robots & Vision Show.

The Spirit of Innovation Luncheon

Keynote Address by Dr. Yasuhiro Ota, Toyota
Wednesday, September 28, Noon to 1:30 p.m.

Toyota Motor Corp. has developed unique "Partner Robots" for use as personal assistants to humans. These robots have the ability to manipulate tools in an intelligent and gentle way and have many other human-like characteristics (including the ability to play musical instruments). Learn about why the project was started, current and future design concepts and possible applications in elder care, manufacturing, and human mobility.

INTERNATIONAL ROBOTS & VISION SHOW

SEPTEMBER 27-29, 2005 • ROSEMONT (CHICAGO), ILLINOIS

Strengthen Your Company with the Latest Robots & Vision Products

Exhibiting Companies as of July 5, 2005

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Active Silicon
Advanced Illumination
Advanced Imaging Magazine
Allison Park Group
Antenen Research
APPLIED IMAGE Group
Assembly Magazine
ATI Industrial Automation
Automation Guarding Systems
Automotive Design & Production
Basler Vision Technologies
Bircher America Inc.
Bit Flow Inc.
Braintech, Inc.
CCS America, Inc.
Cedes Corp. of America
Cognex Corp.
Cohu Electronics Division
Computer Optics
Creative Automation Co.
CRIQ Automation
Dalsa, Inc.
Draka USA
Drossbach LLC/Reiku
DRS Infrared Technologies
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Edmund Industrial Optics
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FANUC Robotics America, Inc.
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Fork-Levator Inc.
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The Fredericks Company
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FTI
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Hermary Opto Electronics Inc.
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Imperx Inc.
Industrial Control Repair (ICR)
IPD
IPR Automation-Sohner Plastics
ISRA Vision Systems
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KUKA Robotics Corp.
LAPP USA
LEONI EPS
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Machine Vision & Imaging Europe
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Metaphase Technologies Inc.
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Moritex USA Inc.
Motoman, Inc.
Multi-Contact USA
Nabtesco Motion Control Inc.
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NET USA
Noren Products, Inc.
ODVA
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Panasonic Factory Automation Co.
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Pari Robotics Inc.
Photonfocus
Photonics Spectra
PIAB Vacuum Products
Pilz Automation Safety L.P.
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Redlake
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Test & Measurement World
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Toshiba Teli Corporation
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Videology Imaging Solutions
Vision Components GmbH
Vision Systems Design
Vitronic Machine Vision
Volpi USA
Wago Corporation
Waldmann Lighting
Wordingham Technologies
Yamaha Robotics

Emerging Robotics Pavilion

Gecko Systems
Kiberton, USA
MobileRobots.com
Yaskawa Electric Corp./Motoman
The University of Michigan
University of Tennesee, IRIS Lab

Show Hours

Tuesday, September 27
10:00 a.m.–5:00 p.m.
Wednesday, September 28
10:00 a.m.– 5:00 p.m.
Thursday, September 29
10:00 a.m.–3:00 p.m.
No one under 18 admitted.

Reuter Exposition Services RES

Good Exhibit Space Available!

Contact Reuter Exposition Services at 203/483-5774 to reserve your space! Members of Robotic Industries Association and Automated Imaging Association receive discounts—for full membership details, call 734/994-6088 or visit the association websites (see below).

For an up-to-date exhibitor list, see www.robots-vision-show.info

The International Robots & Vision Show is Co-Sponsored by:

Robotic Industries Association
900 Victors Way • P.O. Box 3724
Ann Arbor, Michigan 48106
Phone: 734/994-6088 • Fax: 734/994-3338
www.roboticsonline.com

Automated Imaging Association
900 Victors Way • P.O. Box 3724
Ann Arbor, Michigan 48106
Phone: 734/994-6088 • Fax: 734/994-3338
www.machinevisiononline.org

TUTORIALS

Industrial experts teach these in-depth tutorials that provide you with knowledge you can put to immediate use at your company.

Monday, September 26

8:30 a.m. to 11:00 a.m.

Tutorial 1:
Getting Started with Machine Vision

Time: 8:30 a.m. to 11:00 a.m.

Cost: $245 by August 26; $295 after August 26

Instructor: Valerie Bolhouse, Ford Motor Company

You'll learn all the basics, including how images are captured and transferred to the computer, the principles of lighting and the common processing algorithms used by machine vision systems. Discover how to successfully implement vision and how to avoid common pitfalls during the implementation, launch and production phases. This is an ideal course for people new to machine vision, as well as a great refresher course for anyone with machine vision responsibilities.

Tutorial 2:
Getting Started with Robotics

Time: 8:30 a.m. to 11:00 a.m.

Cost: $245 by August 26; $295 after August 26

Instructor: Geary Soska, CMfgE, The Goodyear Tire & Rubber Company

You'll learn the basics of how robots work, which tasks they are best and least suited for, what you must consider when evaluating potential robot applications, how to evaluate robotic equipment and suppliers, how to effectively budget for robot applications, and how to avoid failure. This is a great course for anyone seeking tips on how to successfully apply robots at their company.

1:00 p.m. to 4:00 p.m.

Tutorial 3:
Robotics Risk Assessment

Time: 1:00 p.m. to 3:00 p.m.

Cost: $245 by August 26; $295 after August 26

Instructor: Bruce Main, design safety engineering

You'll receive hands-on training that will prepare you to conduct a risk assessment at your company. A risk assessment is a key tool in helping you determine the right level of safeguarding commensurate with the degree of hazard of your robotic cell. This

SESSIONS

Changes to the conference lineup are possible. For an updated list of s

Tuesday, September 27

FREE Grand Opening Keynote
Robonaut and Future Assembly of the International Space Station

Jointly presented by Assembly Technology Expo and International Robots & Vision Show

Time: 9:00 a.m. to 10:00 a.m.

Speaker: Michael Lutomski, Risk and Mission Assurance Manager, NASA International Space Station Program

Robonaut is a humanoid robot designed by the Robot Systems Technology Branch at NASA's Johnson Space Center in a collaorative effort with DARPA. The Robonaut project seeks to develop and demonstrate a robotic system that can function as an astronaut equivalent on spacewalks. Working side by side with humans, or going where the risks are too great for people, machines like Robonaut will expand our ability for construction and discovery. Come hear about the progress of this extraordinary effort that incorporates both robotics and machine vision technology in exciting new ways!

Session 1: 3-D Machine Vision

Time: 1:00 p.m. to 3:00 p.m.

Speakers: Karl Gunnarsson, SICK IVP; Dr. Georg Lambert, ISRA Vision Systems; Kai-Udo Modrich, Fraunhofer Institute; Michael Schindler, Vitronic; Walt Pastorious, LMI Technologies

Advances in 3-D machine vision make this technology better suited to more manufacturing applications than ever before. Learn about new 3-D developments such as 3-D smart cameras and determine if 3-D vision can help your company in applications including measurement, robot guidance, bin picking, and weld seam inspection.

Session 2: The Business Case for Robotics

Time: 1:00 p.m. to 3:00 p.m.

Speakers: Kirk Goins, ABB Robotics; Chuck Keibler, Genesis Systems Group; Kap Choi, Fanuc Robotics America; Timothy DeRosett, Adept Technology; Mike Olive, RWD Technologies

You'll explore issues such as how to cost justify robots, why robots make sense in a lean manufacturing environment, how robots can help keep manufacturing onshore,

1:00 p.m. to 3:00 p.m.

is a great course for anyone responsible for planning, implementing, supervising, or auditing the safety of a robotic cell.

Tutorial 4:
Beginning Lighting & Optics

Time: 1:00 p.m. to 3:00 p.m.

Cost: $245 by August 26; $295 after August 26

Instructors: Jon Chouinard, RVSI/NER and Stuart Singer, Schneider Optics

You'll gain an excellent introduction to lighting geometry and the basics of illumination optics. Unlike traditional lighting and optics courses, this tutorial is designed to give you a firm understanding of how image quality is specified and used to improve overall system performance. You'll leave this course with the knowledge necessary to converse with seasoned lighting & optics designers and suppliers.

3:15 p.m. to 5:15 p.m.

Tutorial 5:
Advanced Lighting & Optics

Time: 3:15 p.m. to 5:15 p.m.

Cost: $245 by August 26; $295 after August 26

Instructors: Jon Chouinard, RVSI/NER and Stuart Singer, Schneider Optics

Designed for the engineering professional, you'll learn real-world techniques for putting together illumination & optical systems that work. You'll learn how to select proper illumination wavelength, both visible and non-visible, as well as how to deal with complex part surface geometries. Although there are no pre-requisites, Beginning Lighting & Optics is recommended.

Tutorial 6:
Robotic & Machine Vision System Integration Strategies

Time: 3:15 p.m. to 5:15 p.m.

Cost: $245 by August 26; $295 after August 26

Instructors: Brian Turner, Automated Concepts, and David Dechow, *aptúra* Machine Vision Solutions

Learn how to work with system integrators to develop successful robot and vision systems at your company. Understanding and communicating your needs, writing a good spec, and tips on selecting the right integrator for your project will be explored. Real-world examples will be used as illustrations.

future applications for your company to consider, and productivity and cost justification strategies in robotic welding that may be applicable in any application.

Session 3: Advances in Smart Cameras & Sensors

Time: 3:15 p.m. to 5:15 p.m.

Speakers: Bill Silver, Cognex; James Snow, Omron, Dave Fletcher, Banner Engineering

One of the fastest growing segments of the machine vision market is the smart camera/smart sensor field. Learn about how these easy-to-use technologies are applied for inspection tasks such as filling/capping bottles, labeling and coding, and metal stamping. You'll also hear about a new class of sensor that detects and inspects objects by watching them pass through the field of view, allowing it to perform tasks that current vision systems cannot.

Session 4: Case Studies of Successful Robot Applications

Time: 3:15 p.m. to 5:15 p.m.

Speakers: Chris Anderson, Motoman; Brian Doyle, Panasonic Factory Solutions; Joseph Portelli, Fanuc Robotics America; David Egeland, Automated Concepts

One of the best ways to determine if robots are right for your needs is to learn about how they are being successfully used at other companies. In this session, you'll hear about multiple arm robot cells used in a lean manufacturing operation, how robots can be used for multi tasking operations, how a low volume manufacturer uses robots to solve quality problems, and how robots can help industries such as plastics, which has been a relatively slow adopter of the technology.

Register for the Strengthening Industry Pass…Your Best Value!

With a **Strengthening Industry** Pass, you'll have full access to all the tutorials and conference sessions, free show admission, all the course materials, and "The Spirit of Innovation" Luncheon—it's the best way to maximize your benefits at the conference. The cost is just $1095, a savings of $500 off the "a la carte" pricing!

REGISTER BY AUGUST 26TH FOR MAXIMUM SAVINGS!

f speakers and more information on their topics, visit www.robots-vision-show.info

Wednesday, September 28

Session 5: Non-Visible Imaging

Time: 8:00 a.m. to 10:00 a.m.

Speakers: Doug Malchow & Martin Ettenberg, Sensors Unlimited; Kai-Udo Modrich, Fraunhofer Institute; Robert Roche, Hamamatsu; Kyle Voosen, National Instruments; Robert Andreas, Sarnoff Corporation

Non-visible imaging methods are making rapid advances and creating new applications. In this session, you'll learn about automated IR imaging, SWIR imaging for industrial processes, UV and Deep UV imaging advances and applications, NIR spectroscopy for surface inspection, and x-ray imaging in high-speed, high-resolution applications.

Session 6: Vision Guided Robots

Time: 8:00 a.m. to 10:00 a.m.

Speakers: Hans Jurgen Christ, ISRA Vision Systems; Jan-Philipe de Broeck, Adept Technology; Adil Shafi, Shafi, Inc; Rodney Shurtliff, Idaho National Laboratory, Babak Habibi, Braintech; Johnny Park, Purdue University

Vision guided robots are becoming more widespread in industry. Learn about applications for integrated in-line seam tracking, line tracking on a moving assembly line, inspection and a wide variety of other tasks, as well as the advantages vision guided robots provide in increasing flexibility, throughput, and quality while reducing manufacturing costs.

Wednesday, Noon to 1:30 p.m.

Spirit of Innovation Luncheon

Luncheon with keynote address by Dr. Yasuhiro Ota of Toyota's Partner Robot Development Program (details on reverse side). Also featuring presentation of the first RIA Robotics Research Equipment Award.

Session 7: Using Vision for Traceability

Time: 3:15 p.m. to 5:15 p.m.

Speakers: Frank Maslar, Ford Motor Company; Matt Allen, Microscan Systems; Eric McDaniel, Cognex

Automatic component identification and unit-level product traceability is rapidly being deployed throughout the automotive and other manufacturing industries, thanks to advances in image processing technology. You'll learn about how direct part mark identification and 2D datamatrix symbology can efficiently handle applications for traceability, error proofing, and process control.

Session 8: Emerging Robot Applications

FREE to all Show and Conference Attendees!

Time: Wednesday, 3:15 p.m. to 5:15 p.m.

Speakers: Dr. Johann Borenstein, University of Michigan; Martin Spencer, Gecko Systems; James Patton, Ph.D., Rehabilitation Institute of Chicago

Robotics technology now extends beyond the factory floor into a wide range of service applications. New advances in areas such as mobility and humanoid robots offer the hope of even more applications in industries such as medicine, elder care, security, entertainment and defense. In this session you'll learn about exciting new developments and get a look at the next wave of robotics!

Thursday, September 29

Session 9: Robots for Grinding, Deburring and Finishing Applications

Time: 8:00 a.m. to 10:00 a.m.

Speakers: Aaron Odham, ATI Industrial Automation; Edwin Erlbacher, Pushcorp; Mark Hardig, Automated Concepts; Paul Schuch, Robotic Production Technology

In this session you will learn force control basics, off-line programming strategies for material removal, tips on robotic deburring and tool changing, and examine successful robotic plastic finishing applications.

Session 10: Selecting the Right Camera Interface for Your Needs

Time: 8:00 a.m. to 10:00 a.m.

Speakers: Drew Buttress, Lumenera; Jerry Fife, Point Grey Research, John Merva, Tattile USA; Antonio Iglesias, National Instruments

With so many competing options on the market, it's hard to know whether Firewire, Camera Link, USB or GigE Vision is right for your needs. This session will help you analyze the pros and cons of each interface and show you examples using various interfaces.

Session 11: Robots and Vision for Packaging & Palletizing Applications

Time: 10:15 a.m. to 12:15 p.m.

Speakers: Mark Senti, GSMA-Division of SWF Companies; Rick Tallian, ABB; John Westbeld, SAS Automation LLC

Robotics and vision technology offers tremendous opportunities for meeting the challenges of today's packaging lines. In this session you'll learn about how robots are used for product handling for in-feed, primary and secondary packaging, and end of line palletizing. You'll also examine typical applications and ways they can be made more efficient through advances in end of arm tooling.

REGISTRATION FORM

INTERNATIONAL ROBOTS & VISION SHOW

REQUIRED INFORMATION:

Name: _____

Title: _____

Company: _____

Address: _____

City: _____ State: _____ Zip: _____

Country: _____

Phone: _____

Fax: _____

Email: _____

1 My job title/function is (select only one):

- ❑ A. Corporate Management
- ❑ B. Manufacturing Management
- ❑ C. Manufacturing Engineering
- ❑ D. Production Management
- ❑ E. Production Engineering
- ❑ F. Process Control Engineering
- ❑ G. Educator
- ❑ H. Research and Development
- ❑ I. Sales and Marketing
- ❑ J. Other–please specify: _____

3 My company is (Please select option that most closely matches):

- ❑ A. OEM
- ❑ B. System Integrator
- ❑ C. End User
- ❑ D. Robot Supplier
- ❑ E. Vision Supplier
- ❑ F. Consulting Firm
- ❑ G. Government Facility
- ❑ H. Research Lab
- ❑ I. University
- ❑ J. Other–please specify: _____

4 What is your purchasing authority for robotics and/or machine vision products (check one):

- ❑ A. Recommend
- ❑ B. Specify
- ❑ C. Approve
- ❑ D. Not Applicable

5 Please indicate if your company currently uses:

- ❑ A. Robots
- ❑ B. Machine Vision
- ❑ C. Neither

6 Please indicate if in the next six months your facility plans to purchase:

- ❑ A. Robots
- ❑ B. Machine Vision
- ❑ C. Unsure
- ❑ D. Neither

2 My company's primary industry is (select only one):

- ❑ A. Aerospace
- ❑ B. Appliance
- ❑ C. Automotive Manufacturer
- ❑ D. Automotive Supplier
- ❑ E. Consumer Goods
- ❑ F. Defense/Military
- ❑ G. Education
- ❑ H. Electronics
- ❑ I. Food & Beverage
- ❑ J. Furniture
- ❑ K. Medical Devices
- ❑ L. Off-road Vehicles
- ❑ M. Paper/Printing
- ❑ N. Pharmaceuticals
- ❑ O. Plastics
- ❑ P. Semiconductor
- ❑ Q. Textiles
- ❑ R. Other–please specify: _____

Method of Payment

Prepayment is required for conference registrants.

❑ Check enclosed (in U.S. funds, drawn on a U.S. bank, payable to "RIA")

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Questions? Call (734) 994-6088

You also can register online at: www.robots-vision-show.info

SHOW & CONFERENCE REGISTRATION FEES

(Note: Free show admission to Robots & Vision Show and ATExpo is included with all conference registrations.)

❑ Show Only - FREE!

September 27-29

Includes Grand Opening Keynote Session on Tuesday, September 27 and Session 8: Emerging Robot Applications on Wednesday, September 28

FREE! (if this form is submitted by August 26 or brought to the show with you. Without this form, onsite admission is $30.)

No one under 18 admitted.

❑ Strengthening Industry Pass

September 26-29

Allows you to attend any of the six tutorials and eleven conference sessions, provides tutorial handouts, a CD with all conference handouts, and one ticket to "The Spirit of Innovation Luncheon" on September 28. *Your best value!*

By August 26–$1095 After August 26 & onsite–$1195

Please indicate by number which tutorials and sessions you plan to attend:

Tutorials _____ _____ _____

Sessions _____ _____ _____ _____ _____ _____

amount due $_____

❑ Conference Sessions Only Pass

September 27-29

Allows you to attend any of the eleven conference sessions and provides you with a CD containing all conference handouts, and one ticket to "The Spirit of Innovation Luncheon" on September 28. Does not include Monday tutorials.

By August 26–$775 After August 26 & onsite–$875

Please indicate by number which sessions you plan to attend:

Sessions _____ _____ _____ _____ _____ _____

amount due $_____

❑ Individual Tutorials

September 26 only

Includes your choice of tutorials and their handouts; does not include any sessions or full conference proceedings.

By August 26–$245 each After August 26 & onsite–$295 each

Please indicate by number which tutorials you plan to attend (maximum of 3):

Tutorials _____ _____ _____

Number of tutorials x $_____

= amount due $_____

❑ Individual Sessions

September 27-29

By August 26–$165 each After August 26 & onsite–$195 each

Please indicate by number which sessions you plan to attend (maximum of 6):

Sessions _____ _____ _____ _____ _____ _____

Number of sessions x $_____

= amount due $_____

❑ The Spirit of Innovation Luncheon

September 28

Includes lunch and Keynote Address by Dr. Yasuhiro Ota of Toyota
Free with Strengthening Industry Pass or Conference Sessions Only Pass;
for all others:

By August 26–$35 After August 26 & onsite–$40

_____ Number of lunch tickets x (ticket price) $_____

GRAND TOTAL $_____

No charge for cancellations received prior to September 19, 2005. No charge for substitutions at any time. Cancellations received after September 19, 2005 will result in a $50 cancellation fee. No refunds for cancellations received after September 26, 2005.

INTERNATIONAL ROBOTS & VISION SHOW

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ROSEMONT (CHICAGO)
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