



# 1<sup>st</sup> Annual **Community Career+Education Forum** for students

Hosted by: **Endress+Hauser** 

In partnership with: **Central Nine Career Center**



*"When kids look up to great scientists the way they do to great musicians and actors, civilization will jump to the next level."*

*~Brian Greene (author and scientist)*

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# Dear Guests,

Welcome to the 1st Annual Community Career+Education Forum. The evening brings some exciting activities, including informational booths, robotics teams, a PTU Challenge, production center tours, cool prizes and giveaways, a pizza dinner and much more. The fun that has gone into tonight is reflective of the energy infused into the work of all the Forum participants, partners and supporters. A huge thanks is due to those who have worked tirelessly to make the 1st Annual Community Career+Education Forum a success.



Todd Lucey

As you know, today, market demands for skilled workers in technical fields such as engineering far outpaces graduation rates and entry into our US manufacturing workforce. With the departure of our Baby Boomer Generation from the workplace, this has brought about a serious need for new graduates in STEM related fields and emphasized the need to better develop our next generation of workers – the Millennial Generation and our upcoming middle school-aged students, GenEdgers.



Brandyn Ferguson

Through speaking with several local students, parents and educators, we found that our community is truly unaware of the exciting career opportunities that exist right here in their own backyard. As an example, many students and parents believe they need to go elsewhere to find a job in the engineering field. It is critical that we, as employers and leaders in the industry, work alongside schools and partner with our local community educators to encourage the highest quality science, technology, engineering and math (STEM) education. There needs to be more financial investments made by community employers that enable educators to better train students at the grade-school level in problem-based learning that provides more hands-on opportunities for solving real problems, using critical thinking and that inspires innovation around STEM.

In an effort to collaboratively educate the community on what manufacturing looks like today, the importance of STEM related education, and the types of careers and opportunities that exist in advanced manufacturing while addressing issues around talent, retention and attraction, the 1st Annual Community Career+Education Forum was born.

Throughout the evening as you connect with local manufacturers, colleges, robotics teams, educators and other members and groups of the community, we hope to have a real impact on our youth's high school education, careers and ultimately their entire future.

We will leave you with a quote by author and scientist, Brian Greene that inspires and embraces our vision and hopes for the future of the Community Career+Education Forum and our youth, *"When kids look up to great scientists the way they do to great musicians and actors, civilization will jump to the next level."*

A handwritten signature in black ink that reads "Todd Lucey".

Todd Lucey  
General Manager,  
Endress+Hauser Sales Center USA

A handwritten signature in black ink that reads "Brandyn Ferguson".

Brandyn Ferguson  
Vice President of Human Resources,  
Endress+Hauser Sales Center USA

# Special Thanks

American Industrial Corporation  
Aspire Johnson County  
Automation Federation and ISA  
Beech Grove Middle School  
Caterpillar® Remanufacturing (Cat Reman)  
Center for Education & Career Innovation (CECI)  
Center Grove Middle School Central  
Center Grove Middle School North  
Central Nine Career Center  
Clark-Pleasant Middle School  
Dean Foods  
Electro-Spec, Inc.  
Endress+Hauser Talent Ambassadors  
*FIRST*®  
*FIRST*® Tech Challenge (FTC®)  
*FIRST*® LEGO® League (FLL®)  
*FIRST*® Team 234, Cyber Blue Robotics (Perry Meridian High School)  
*FIRST*® Team 1529, CyberCards Robotics (Southport High School)  
*FIRST*® Team 1741, Red Alert Robotics (Center Grove High School)  
*FIRST*® Team 3180 Blaise of Glory (Indian Creek High School)  
Franklin Community Middle School  
Franklin Township Middle School - East  
Franklin Township Middle School - West  
Greenwood Middle School  
Heartland Machine & Engineering  
Indian Creek Middle School  
Ivy Tech Community College (Franklin Campus)  
Johnson County Community Foundation  
Johnson County Development Corporation (JCDC)  
Kelsay Farms, LLC  
Major Tool & Machine, Inc.  
Nachi  
NSK Corporation  
Perry Meridian Middle School  
Purdue University - College of Technology  
Rockwell Automation  
Rose-Hulman Institute of Technology  
Stratus Technologies  
VisualEdge, Inc.  
2014 CCEF Planning Committee

# Order of Activities

<b>Time</b>	<b>Topic</b>
5:00	Kickoff
5:00 – 8:30	<ul style="list-style-type: none"><li>■ Food and drinks available in cafe</li><li>■ Event activities</li></ul>
6:00 6:30 7:30	PTU Challenge
5:45 7:30	Tour our Production Centers
7:00 – 7:30	Special Program for all attendees (Gather in Auditorium)
7:30 – 8:30	Resume event activities

# About the Speakers

## **Brandyn Ferguson, SPHR**

Brandyn Ferguson is the Vice President of Human Resources at Endress+Hauser Sales Center USA. Brandyn has served on several community boards and committees for non-profit, education and business organizations. He currently serves on a team called Aspire Johnson County with a group of local business and community leaders. Within this group, Brandyn serves on the talent attraction and retention committee where he focuses on bringing the school and industry community, and other stakeholders together in an effort to develop the next generation of the American workforce. Brandyn has a degree in Criminal Justice and Criminology from Ball State University and an MBA from Indiana Wesleyan University. Brandyn and wife Tricia have 3 children who attend Center Grove schools where Trish is the high school assistant principal.



## **Todd Lucey**

Todd Lucey is the General Manager at Endress+Hauser Sales Center USA. Todd joined Endress+Hauser in 1993 and has held numerous product, industry, marketing, support, and sales responsibilities within the process measurement industry. Todd currently serves as the Chairman of the Board for the Measurement Control Automation Association (MCAA). He previously served as Vice Chairman of the Board in 2013. Since June of 1988, Todd has served as an active member of the International Society of Automation (ISA). Todd earned his Bachelor of Science in Chemical Engineering from the University of Minnesota and is happily married to Tammy with two children.



## **Marie Mackintosh**

Marie Mackintosh serves a dual role as the Director of Works Councils at the Center for Education and Career Innovation and as the Director of Adult Education at the Indiana Department of Workforce Development. Her responsibilities include elevating the importance of career and technical education through Indiana's regional Works Councils and overseeing roughly \$21 million toward the successful delivery of adult education services and the WorkINDiana bridge programs. Marie has over 5 years of experience in higher education administration and holds a Bachelor of Arts degree in English from Indiana University, where she graduated with Phi Beta Kappa honors, and an MBA from Butler University.



## **Dr. David Edds**

Dr. David Edds is the Director of Central Nine Career Center located in Greenwood, Indiana. Dr. Edds background consists of 41 years of education experience - 15 years as a classroom teacher, 9 in central office administration including 10 plus years as a superintendent. In 2000, he graduated from Indiana University with his Doctorate of Education. Dr. Edds is happily married with two grown children. His wife shares the same passion for education, working at East High School in Columbus, Indiana.



# Thanks to our Booth Participants



## **American Industrial Corporation**

AIC is the Midwest's premier supplier of painting, powder coating and sealant & adhesive systems, equipment, service, and components. Representing brands like ABB, Binks, DeVilbiss, Fanuc, Gema, Graco and Ransburg -- in conjunction with our own in-house engineering, sheet metal fabrication, installation and service capabilities -- AIC offers SOLUTIONS to your finishing and material dispensing needs!

## **CATERPILLAR® Caterpillar® Remanufacturing**

Around the world, Caterpillar is driving positive, sustainable change through advanced processes and product innovation. As the world leader in remanufacturing, Cat Reman is making progress possible finding new ways to reduce, reuse, recycle, and reclaim materials which once would have gone into a landfill.



## **Central Nine Career Center**

A public high school/career center providing College & Career Readiness to students from 9 area high schools. Mission: "We provide the necessary facilities, appropriate equipment, technological instruction, and learning environment relevant to business and industrial needs in order to enhance student success." Description: Central Nine Career Center is an area career/technical school dedicated to the development of the knowledge and skills necessary to prepare students for employment in a chosen career and/or furthering their education at a post-secondary institution. Central Nine is located at 1999 U.S. 31 South in Greenwood, Indiana, and provides career and technical education for a geographic area that encompasses all of Johnson County, the southeast township of Morgan County, and a main portion of the southern third of Marion County including students transported to those districts from the Indianapolis Metropolitan area. The school serves eight school corporations, which send students from nine high schools. Those high schools are: Beech Grove High School, Center Grove High School, Franklin Central High School, Franklin Community High School, Greenwood High School, Indian Creek High School, Perry Meridian High School, Southport High School, and Whiteland Community High School.



## **Electro-Spec, Inc.**

Electro-Spec is continually recognized as one of the leading specialty plating facilities in the United States for providing world class electroplating for the electronics, aerospace, automotive and medical industries. We have worked hard to develop a broad customer base from North America to Asia, & Europe. Electro-Spec is synonymous with high quality and high reliability Gold, Silver, Palladium, Nickel, Copper, and Tri-M3 (Tri-Alloy) electroplating. Our core value is to make the impossible possible through innovative methods, technology, and automation unsurpassed in the industry.



## Endress+Hauser

Endress+Hauser is one of the largest instrument manufacturers in the United States' industrial automation industry – specializing in automation solutions for the chemical, food and beverage, oil and gas, water and wastewater, life sciences, power and energy, primaries and metals, and pulp and paper industries. For more information about Endress+Hauser, please visit [www.us.endress.com](http://www.us.endress.com).



## FIRST®

FIRST® was founded in 1989 to inspire young people's interest and participation in science and technology. Based in Manchester, NH, the 501 (c) (3) not-for-profit public charity designs accessible, innovative programs that motivate young people to pursue education and career opportunities in science, technology, engineering, and math, while building self-confidence, knowledge, and life skills. Our mission is to inspire young people to be science and technology leaders, by engaging them in exciting mentor-based programs that build science, engineering and technology skills, that inspire innovation, and that foster well-rounded life capabilities including self-confidence, communication, and leadership.

*"To transform our culture by creating a world where science and technology are celebrated and where young people dream of becoming science and technology leaders."* - Dean Kamen, Founder F



## FIRST® Tech Challenge (FTC®)

The FIRST® Tech Challenge is more than a robotics program. We are a community focused on building a better world for tomorrow by engaging students in Science, Technology, Engineering and Math (STEM).

FTC is about teaching students the value of hard work, innovation and creativity. It goes beyond competition by teaching teenagers the importance of working together, sharing ideas and treating each other with respect and dignity.



## FIRST® LEGO® League (FLL®)

Introduces younger students to real-world engineering challenges by building LEGO-based robots to complete tasks on a thematic playing surface. FLL teams, guided by their imaginations and adult coaches, discover exciting career possibilities and, through the process, learn to make positive contributions to society.

Elementary and middle-school students get to:

- ✓ Design, build, test and program robots using LEGO MINDSTORMS® technology
- ✓ Apply real-world math and science concepts
- ✓ Research challenges facing today's scientists
- ✓ Learn critical thinking, team-building and presentation skills
- ✓ Participate in tournaments and celebrations

What FLL teams accomplish is nothing short of amazing. It's fun. It's exciting. And the skills they learn will last a lifetime.



## FIRST® Team 234, Cyber Blue Robotics (Perry Meridian High School)

Cyber Blue is focused on exceeding known limits. We concentrate on education, community, and competition. Whether we are inviting the community into our lab to experience robotics firsthand or helping out our neighboring teams in FIRST®, Cyber Blue is determined to be a force



and recognized name in our Southside Indianapolis community. The setup and vision of Cyber Blue is designed to teach students of all interests to apply for the team, and we diversify our team by accepting many different types of learners. We find that the creation of a robot is not only about engineering, but about creativity and idealistic thinking



### **FIRST® Team 1529, CyberCards Robotics (Southport High School)**

*FIRST* Team 1529, the Southport CyberCards, has participated in the high school *FIRST* Robotics Competition (FRC) since 2005 at Southport High School. Currently the team has over forty students engaged with the program and five mentors. The team has a large number of underclassmen involved with the program who are eager to increase their community outreach and engage local middle schools in the *FIRST* program. Learn more about FRC 1529 at their website: <http://frc1529.wordpress.com/> or follow them on twitter @FRC1529.



### **FIRST® Team 1741, Red Alert Robotics (Center Grove High School)**

*FIRST* Team 1741 Red Alert Robotics is located at Center Grove High School in Greenwood, Indiana. For the past eight years, since our team began in March of 2005, Red Alert has been led by a group of students, mentors, parents, and the Center Grove School Corporation, focused on STEM education and spreading the mission of *FIRST*, “To inspire young people to be science and technology leaders, by engaging them in exciting mentor-based programs that build science, engineering and technology skills, that inspire innovation, and that foster well-rounded life capabilities including self-confidence, communication, and leadership.”



### **FIRST® Team 3180 Blaise of Glory (Indian Creek High School)**



### **Heartland Machine & Engineering**

Heartland Machine and Engineering is a full service machine tool distributor providing sales, service, engineering, and automation to customers in Indiana, Michigan, Ohio, Kentucky, and Tennessee. Heartland’s sales team and engineers use a collaborative approach to selling and providing engineering services. Heartland specializes in turn-key projects that require a high level of integration and engineered content in order to provide our customers with a superior manufacturing system.



### **Ivy Tech Community College**

Ivy Tech Community College is the state’s largest public postsecondary institution and the nation’s largest singly accredited statewide community college system serving nearly 200,000 students annually. Ivy Tech has campuses throughout Indiana. It serves as the state’s engine of workforce development, offering affordable degree programs and training that are aligned with the needs of its communities. In addition, its courses and programs transfer to other colleges and universities in Indiana. It is accredited by the Higher Learning Commission and is a member of the North Central Association



### **Major Tool & Machine, Inc.**

Major Tool and Machine is recognized as a critical leader in providing world-class manufacturing, engineering, fabrication, precision machining, and assembly services to a variety of United States and International customers. Major Tool manufactures hardware for a variety of industries including Aerospace, Defense, Power Generation, Commercial Industrial, and the Nuclear markets.

Major Tool & Machine has grown to over 600,000 square feet of manufacturing space in the Indianapolis area and excels in the following areas:

- Complex engineering, fabrication, precision machining, and assemblies
- Experienced project & program management
- Contract manufacturing from material acquisition to assembly and testing
- Dedicated production services
- High variety, medium volume production

### **NACHI Nachi**

Nachi America is the sole authorized U.S. distributor for Nachi-Fujikoshi Corporation, one of the world's most innovative manufacturers of anti-friction bearings, precision cutting tools, hydraulic equipment and high speed steel. Nachi America is proud to deliver products manufactured to the highest possible standards and maintains an ongoing commitment to Incredible Quality TM in everything we do.

### **NSK NSK Corporation**

NSK Franklin Campus consists of two manufacturing plants and two warehouses. The Franklin Hub Bearing Division produces wheel hub bearings and bearing component parts for the automotive industry whereas NSK Precision America manufactures linear guides, ball screws, linear actuators, and integrated solutions for several industries. Both facilities were in operation in 1993, to handle fulfillment and distribution more effectively for the US market.

### **PURDUE Purdue University - College of Technology**

ENGINEERING

No profession unleashes the spirit of innovation like Engineering. From research to real-world applications, Engineers constantly discover how to improve our lives by creating bold new solutions that connect science to life in unexpected, forward-thinking ways. Few professions turn so many ideas into so many realities. Few have such a direct and positive effect on people's everyday lives. We are counting on educated Engineers and their imaginations to help us meet the needs of the 21st Century. Purdue engineers are working in virtually any area in which their expertise can benefit humanity. In the College of Engineering, we do everything we can to encourage and support our students, staff and faculty. Which is why we are investing in our people and facilities to bring renowned faculty to campus, enhance research, and create an unparalleled learning environment for our students.

### **Rockwell Automation Rockwell Automation**

Rockwell Automation, Inc. (NYSE: ROK), the world's largest company dedicated to industrial automation and information, makes its customers more productive and the world more sustainable. Headquartered in Milwaukee, Wis., Rockwell Automation employs about 22,000 people serving customers in more than 80 countries.



## **Rose-Hulman Institute of Technology**

It's true Rose-Hulman has been ranked No. 1 by U.S. News & World Report among institutions whose highest degree in engineering is the master's. With 99% placement, the school is ranked in the Payscale top 10 for starting salaries. Rose-Hulman has 2,100 undergraduate and 100 graduate students majoring in engineering, science or mathematics. As students prepare for their careers, they experience a hands-on education while learning the value of teamwork as well as formulas and equations.



## **Stratus Technologies**

In today's always-on world, applications run under increasingly demanding circumstances. With these escalating demands comes greater pressure to prevent even the smallest amount of application downtime. Companies are responding to this need for always-on solutions by searching for technologies that either conform to or enhance their current IT infrastructures. Stratus Technologies is the leading provider of infrastructure based solutions that keep applications running continuously in today's always-on world. Stratus Technologies' solutions enable rapid deployment of always-on infrastructures, from enterprise servers to clouds, without any changes to your applications. Our products (software and servers) combined with our people, enable us to prevent downtime before it occurs, ensuring uninterrupted 24 x 7 x 365 performance of essential business operations.



## **VisualEdge, Inc.**

VisualEdge is a company of education and technical professionals with broad talents in robotics education, graphic design, publication, and manufacturing engineering fields. We are committed to promoting robotics education as an avenue of learning STEM (Science, Technology, Engineering, and Mathematics) beyond what is typically found in the traditional classroom. Since our inception in 2005, our VEX Training Workshops for Educators have trained over 1200 high school and middle school STEM teachers how to start and maintain successful robotic programs in their classrooms and extracurricular clubs. Our training has been featured in several issues of ROBOT Magazine and was recognized by VEX Robotics as the Champion of Education in 2009. VisualEdge is a top VEX Robotics reseller and the developer of the innovative line of the Game-in-a-Box. The games and challenges we have developed provide a number of challenging, exciting, and educational robot teaching aids for use in the classroom or as application activities for robotic clubs. Each game requires students to apply their knowledge to solve complex science, math, and engineering problems.

# PTU CHALLENGE



Sign-up inside the PTU®

**6:00 PM**  
**6:30 PM**  
**7:30 PM**



Take the PTU® (Process Training Unit) Challenge and see what it's like to work as a plant engineer or instrument technician in a simulated process plant! Here you will get hands-on experience with the types of operation and troubleshooting found in real-life process plants and get the chance to win cool prizes!



# Going Places with STEM PASSPORT

Visit as many booths as you can, fill your passport with stickers that you receive at each booth. Fill in the contact information for a chance to win cool prizes! Make sure to drop off your passport when you exit. You will be contacted by phone or email if you are a winner!

**PASSPORT**



**GOING PLACES  
with  
STEM**

Visit as many booths as you can, fill this passport with stickers (you'll receive at the booths) and fill in your contact information for a chance to win cool prizes! Make sure you drop off your passport when you exit. You will be contacted by phone or email if you are a winner!

Name: \_\_\_\_\_

School: \_\_\_\_\_

Email: \_\_\_\_\_

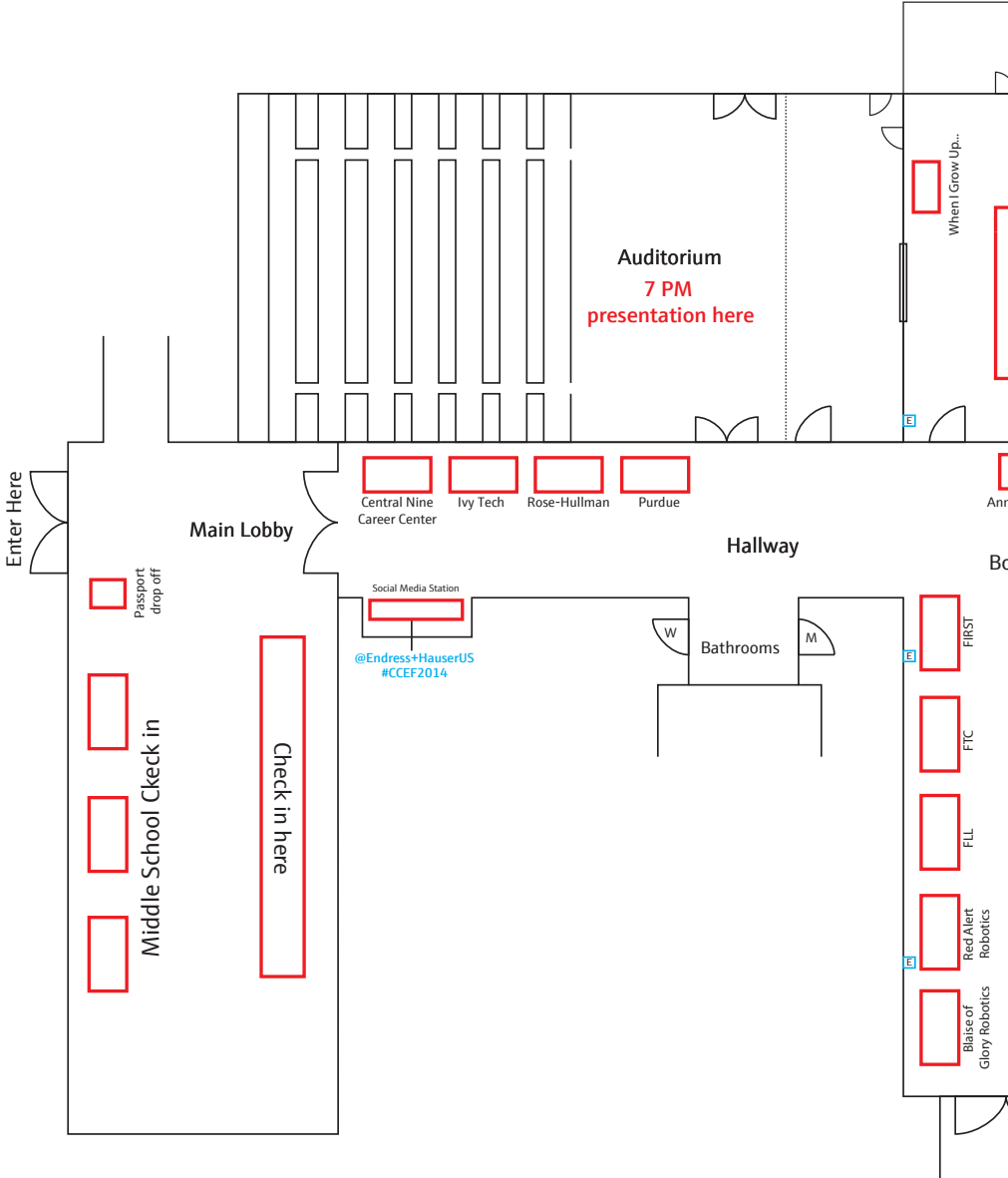
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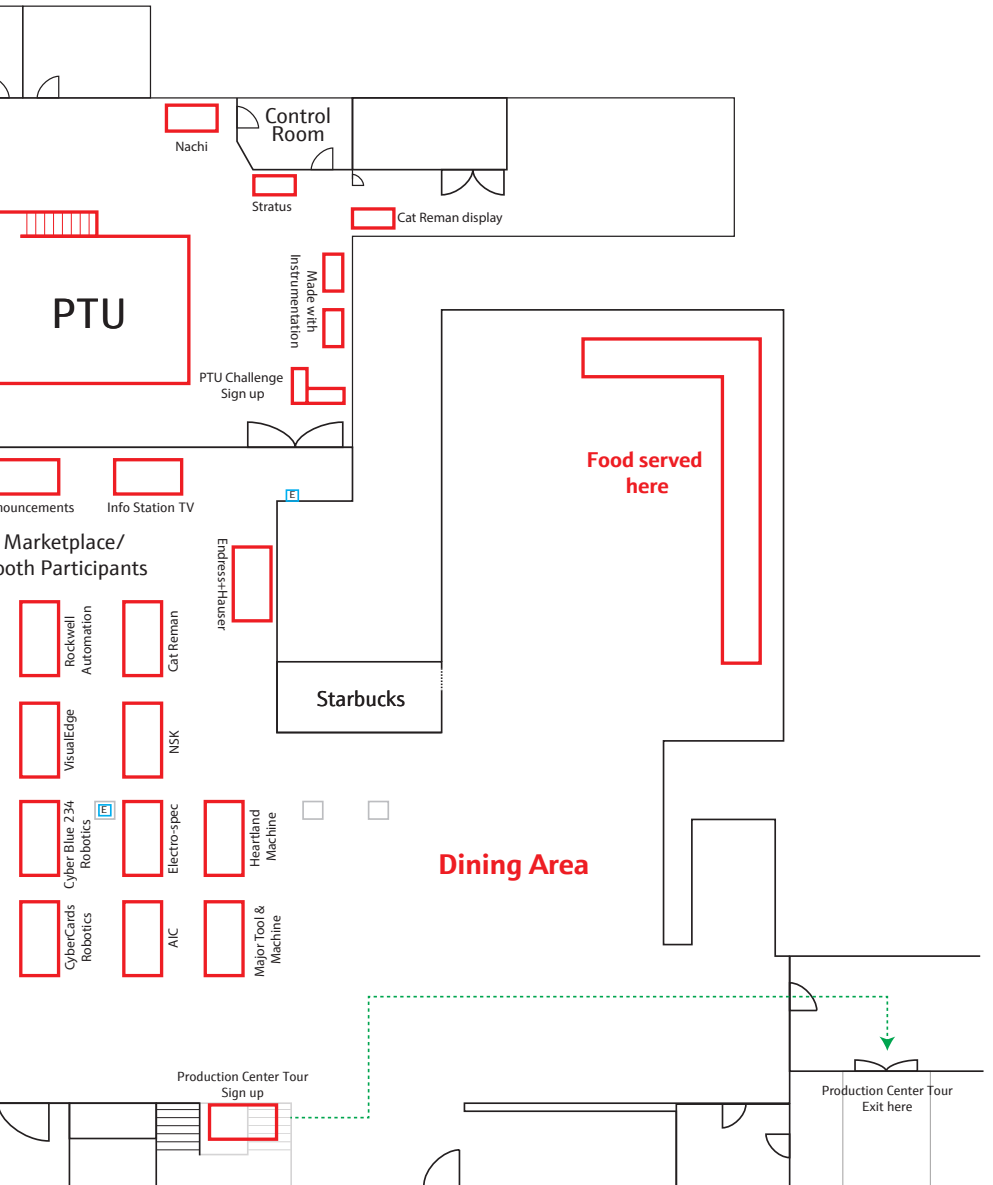
Booth Participants

Place sticker next to booth name

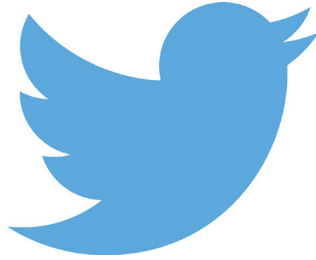
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# Map of Booths and Activities





# Join the conversation!



**@EndressHauser US**  
**#CCEF2014**

## Follow us to win cool prizes!

Throughout the Community Career+Education Forum, we will be tweeting out facts about the manufacturing industry and CCEF participants. In addition, every half-hour attendees will have the opportunity to answer trivia questions posted by @EndressHauserUS to win a cool prize. Be the first to reply with a correct answer on Twitter and you win! Just remember to follow @EndressHauserUS and use the hashtag #CCEF2014!

Have questions about the event or any of the exhibitors?  
Send a tweet to @EndressHauserUS and we'll tweet back an answer.

Thanks for following us!