



2019 Community Career+Education Forum

for students



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Dear Guests,

We must inform, inspire and empower students and all of their adult influencers on what kinds of great careers await them, and the educational and vocational paths that will get them there.

~*Brandy Ferguson, VP of Human Resources, **Endress+Hauser***

Students and their parents get to interact with multiple representatives from the advanced manufacturing/STEM industry, as well as speak with post-secondary institution representatives. They also have the chance to take one of three plant tours and engage with a multitude of hands-on activities. This event truly gives students the chance to envision themselves in a high-demand and high-wage career area, as well as learn the pathway to that career, all while being excited and engaged throughout the evening!

~*Nicole Otte, Director of Workforce Development, **Endress+Hauser***

Caterpillar has been participating in the CCEF Program since its inception in 2014. I have always considered this a great opportunity to engage with our community as well as an investment in our youth. Participation in this program has provided us with the opportunity to champion manufacturing as a career choice as well as execute opportunities outside of this event. Most recently, we have supported area high school robotics teams by serving as judges in their competitions. This is just one of the many opportunities that became available by supporting this event.

~*Don Kinsey, Facility Manager, **Caterpillar Remanufacturing***

It is so beneficial to show students the types of careers and educational resources that are right here in their own community! The Library loves to show off our fantastic S.T.E.A.M. take home kits that emphasize how fun learning science/math/technology/engineering can be and how important it is for our future. We also have programs for kids and teens that build on these concepts, such as making electric slime, exploring robotics and working with everyday objects in experiments! This forum helps us spread the word these skills are important and can be fun!

~*Jane Weisenbach, Director of Development, **Greenwood Public Library***

“After attending my first CCEF three years ago, I was blown away by the array of opportunities available from business in our local community. CCEF is a great event that introduces students to the careers opportunities, while providing resources to guide students toward their future goals.”

~*Mike Quaranta, Assistant Director, **Central Nine Career Center***

Special thanks

- Aspire Johnson County
- Beech Grove City Schools
- Boys & Girls Club
- Caterpillar® Remanufacturing
- Center Grove Community Schools
- CenterPoint
- Central Nine Career Center
- City of Greenwood
- Clark-Pleasant Community Schools
- Cummins, Inc.
- Duke Energy
- Experimental Aircraft Association (EAA), Chapter 1354
- Endress+Hauser
- Experimental Aircraft Association, EAA Chapter 1354
- Ferguson Construction Company
- Flexware Innovation
- FIRST® Team 13295 Disaster Management (Center Grove High School)
- FIRST® Team 1529, CyberCards Robotics (Southport High School)
- FIRST® Team 1741, Red Alert Robotics (Center Grove High School)
- FIRST® Team 3180 MECHAlosaurs (Indian Creek High School)
- FIRST® Team 6190 Cyberstorm (Center Grove High School)
- FIRST® Team 6451 Wired Warriors (Whiteland Community High School)
- FIRST® Team 8149 Panic in the Build Room (Center Grove High School)
- FIRST® Team 8791 The Green Machine & 8793 Wired Woodmen (Greenwood High School)
- Franklin College
- Franklin Community Schools
- Franklin Township Community Schools
- Greenwood Christian Academy
- Greenwood Community Schools
- Greenwood Public Library
- Guckenheimer
- IBEW
- Indiana State University
- Indian Creek Community Schools
- Industrial Controls and Automation
- Indy South Greenwood Airport
- International Brotherhood of Electrical Workers - Local 481
- IUPUC
- Ivy Tech Community College (Franklin Campus)
- Johnson County Community Foundation
- Johnson County Development Corp.
- Johnson County Public Library
- Nachi
- Nestle Waters
- NSK Corporation
- Perry Township Schools
- Poynter
- Purdue Polytechnic Institute - Purdue University
- Rose-Hulman Institute of Technology
- Southport Community Schools
- University of Indianapolis
- Wessler Engineering
- Wilhelm Construction
- 2019 CCEF Steering Committee
- 2019 CCEF Volunteers

Order of activities

Time	Topic
4:00 - 5:30 p.m.	Educational Grant Presentation
5:30 p.m.	Event Kick-Off
5:30 – 8:30 p.m.	Dinner
5:30 – 8:30 p.m.	Event Activities
5:30 – 8:00 p.m.	PTU Challenge (<i>see page 17</i>)
5:30 - 8:30 p.m.	Career Pathways Activity (<i>see page 15</i>)
5:30 - 8:30 p.m.	Outside Exhibit (<i>Cummins</i>)
5:30 - 8:30 p.m.	Are You Smarter Than an Engineer? (<i>see page 16</i>)
5:45 - 8:30 p.m.	Robotics (<i>see pages 19</i>)
6:00 - 8:00 p.m.	STEM Studios (<i>see page 18</i>)
8:30 p.m.	Event Concludes

Thanks to our participants



Caterpillar® Remanufacturing

CAT Reman recovers materials through differentiated technology and employs environmentally sustainable practices to restore components to good-as-new condition. CAT Reman is positioned as a high technology, low cost, global brand focused on salvage capabilities.



CenterPoint

Vectren Corporation (NYSE: VVC) is an energy holding company headquartered in Evansville, Ind. Vectren's energy delivery subsidiaries provide gas and/or electricity to more than 1 million customers in adjoining service territories that cover nearly two-thirds of Indiana and about 20 percent of Ohio, primarily in the west-central area. Vectren's nonutility subsidiaries and affiliates offer energy related products and services to customers throughout the U.S. These include infrastructure services and energy services. These nonutility companies are Miller Pipeline Corporation and Minnesota Limited, which together are known as MVERGE, and Energy Systems Group. Vectren Corporation employs more than 1,800 people and more than 5,600 when including Vectren's nonutility companies.



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." 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.



City of Greenwood

There are multiple departments across the City of Greenwood that offer opportunities for STEM careers. Greenwood's Aviation Department operates Indy South Greenwood Airport. Community Development Services is the integration of the Building, Engineering and Planning Divisions. All divisions work together to help property developers, business owners, contractors and citizens develop the Greenwood area. The sanitary sewer system maintains nearly 500 miles of existing pipe serving more than 24,000 residents, businesses, schools and other organizations in northern Johnson County. The Stormwater Management Program, protects critical infrastructure and improves the ecological health of our environment. Greenwood's Street Department keeps roadways safe, making travel throughout the city as convenient and pleasurable as possible. It takes these specialties working together that makes Greenwood an exceptional place to live, work and play.



Cummins Inc.

We're a place big enough to coach and develop a global workforce and create the world's leading clean, engine technology. We're also small enough for you to find your fit and personal passion with a team of dependable, innovative thinkers who are developing their careers within a diverse, inclusive, empowering environment. This is how we do business – we call it Working Right. Cummins Inc., a global power technology leader, is a corporation of complementary business units that design, engineer, manufacture, distribute and service engines and related technologies, including fuel systems, controls, air handling, filtration, emission solutions and electrical power generation systems. Headquartered in Columbus, IN, we employ approximately 55,200 people worldwide and serve customers in approximately 190 countries and territories through a network of more than 600 company-owned and independent distributor locations and approximately 7,200 dealer locations. Cummins earned \$1.4 billion on sales of \$19.1 billion in 2015.



Duke Energy

Duke Energy Corporation is headquartered in Charlotte, NC. Its Electric Utilities and Infrastructure business unit serves approximately 7.5 million retail electric customers in six states in the Southeast and Midwest, representing a population of approximately 24 million people. The company's Gas Utilities and Infrastructure business unit distributes natural gas to approximately 1.6 million customers in the Carolinas, Ohio, Kentucky and Tennessee. Its Commercial Renewables business unit operates a growing renewable energy portfolio across the United States. Duke Energy is a Fortune 125 company traded on the New York Stock Exchange under the symbol DUK. More information about the company is available at duke-energy.com.



Endress+Hauser

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. Endress+Hauser, a Switzerland based company, first began operations in the U.S. in 1970. Since that time, Endress+Hauser has continued to invest in its U.S. operations - investing an average of 10% of its annual revenue into its infrastructure. Over the last eight years, Endress+Hauser has invested roughly \$160 Million into the Greenwood campus. For more information about Endress+Hauser, please visit www.us.endress.com.



Experimental Aircraft Association, EAA Chapter 1354

The EAA Chapter 1354 is a chartered member of the Experimental Aircraft Association (EAA) of OshKosh, WI. We are a 501c3 non-profit education organization. Our main program is the Young Eagles program, which was started in 1992 by the national EAA. The program offers kids ages 8 to 17 a free airplane ride which hopefully inspires them to get involved in aviation. Our chapter has developed middle and high school after-school courses based in the STEM disciplines. We work with local school corporations to enhance their academic programs through engineering and aviation courses. Our major program is the high school Elite Pilot Program designed to take the student all the way to their Private Pilot Certificate before they graduate from high school. www.eaa.org



Ferguson Construction

Ferguson Construction is an award-winning general contracting company specializing in manufacturing and industrial buildings, medical office buildings, healthcare facilities, retail, and commercial spaces. We employ professionals for all stages of workflow, from site developers, architects, project managers, and engineers to concrete, steel, masonry, and carpentry professionals. We have an excellent self-preforming team and reaching nearly 400 total employees.

Ferguson Construction started in 1920 as a general contracting firm serving institutional, commercial, and industrial markets with an office in Sidney, Ohio. As our project scope expanded, so did our office space. Ferguson now operates locations in Sidney, Dayton, and Columbus, Ohio, and Columbus, Indiana, which allows us to more efficiently serve our clients throughout Ohio and Indiana.

We complete both small and large-scale projects for clients in Ohio and Indiana. Our company places a strong emphasis on safety, quality construction, and delivering exceptional value to our customers.



Flexware

Engineered with Integrity, Humility, and Grit since 1996

Flexware Innovation, Inc. is a leading technology integrator who helps forward thinkers in manufacturing and related industries build comprehensive and long-lasting solutions with ease. Founded in 1996, Flexware continues to help companies leverage technology to solve real business problems with teams of engineers focused on software development, automation engineering, manufacturing systems integration, business intelligence, and internet of things (IoT) devices. Flexware exists to unleash the potential of technology, freeing people to focus on what’s next.



FIRST® Team 13295 Disaster Management (Center Grove High School) FIRST Team 13295 Disaster Management is one of three First Tech Challenge Teams from Center Grove High School in Greenwood, IN. We established in 2017 and had the pleasure of winning several Rookie Awards our first season. Our mission is to inspire young students to engage in STEM activities through the fields of robotics and technology, while exploring the power of science and engineering and applying them to their future.



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

The Southport High School FIRST Robotics Team, the CyberCards, exists to encourage students to find their passion, become an expert in what they are passionate about, and to communicate that passion to others in the community. The team participates in a competition held by FIRST (For Inspiration and Recognition of Science and Technology), a program developed in 1989 to inspire more interest in the fields of science and technology. While the focus of FIRST is the development of students' interests in the areas of Science, Technology, Engineering, Art, and Math; the CyberCards work to prepare young minds to work and thrive in our increasingly technological world and global economy by encouraging students to find their passions.



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 MECHAlosaurs (Indian Creek High School)

FRC 3180, Blaise of Glory, at Indian Creek High School has been participating in FIRST since 2010. Currently the team has about 20 members along with 3 mentors who assist the team year round. We are a young team working on expanding our program.



FIRST® Team 6190 Cyberstorm (Center Grove High School)

We are team 6190, CyberStorm, the first of the two CyberStorm Logo1Red *FIRST* Tech Challenge teams that have been founded in Center Grove. We were formed in Center Grove High School located in Greenwood, Indiana. Our goal as a team is to inform our peers about the world of science and technology while having fun and learning from our teammates and mentors.



FIRST® Team 6451 Wired Warriors (Whiteland Community High School)

The Wired Warriors are a robotics team based out of Whiteland Community High School. We participate in FIRST FRC competitions and stay involved with many of their outreach programs. Our main goal is to increase the interest and popularity of STEM related fields and ideas throughout the community. We do this within our own school by supporting STEM education and outside through volunteer work at STEM events.



FIRST® Team 8149 Panic In The Build Room (Center Grove High School)

We are team 8149, Panic in the Build Room. We are one of two FIRST Tech Challenge teams from Center Grove High School in Greenwood, Indiana, and we were founded three years ago. Our primary goal for each year is to spread awareness about science, technology, engineering, and math (STEM) throughout our school and our community in an attempt to encourage more young people to dream of becoming science and technology leaders.



FIRST® Team 8791 The Green Machine & 8793 Wired Woodmen (Greenwood Robotics)

The Greenwood Robotics program is a chance for students from the Greenwood School Corporation 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. Many students from the Greenwood Community School Corporation attended the 1st Annual Community Career and Education Forum for students at Endress+Hauser. After attending the forum, several Greenwood students and administrators were eager to establish a program that would allow students to compete in an event that combines the excitement of sport with the rigors of science and technology. Led by Mr. Campbell and Mrs. Vest from GMS, several mentors from Greenwood volunteered to start the Greenwood FIRST Tech Challenge program. Students from grades 7–12 can participate. This year Mrs. Sirkin has added a Lego League (FLL) at GMS where 6th graders can now get started in robotics. Our mission is to inspire young people to be science and technology leaders, by engaging them in exciting mentor-based programs that teach science, engineering, and technology skills. We hope to inspire innovation, and foster well-rounded life capabilities including self-confidence, communication, and leadership. In short, Greenwood Robotics Programs are growing good people, by designing, building and competing with robots.





Franklin College

Founded in 1834, Franklin College is a residential, liberal arts institution with a scenic, wooded campus, spanning 207 acres, including athletic fields and a 31-acre biology woodland. Students enjoy the comfort and safety of suburban living, while also experiencing the many opportunities Indianapolis has to offer with only a short 20-minute drive to downtown. The college prepares students to think independently, to lead responsibly and to serve with integrity in their professions, their communities and the world. The college offers its more than 1,000 students Bachelor of Arts degrees in more than 50 majors from 24 academic disciplines, 42 minors, 11 pre-professional programs and five cooperative programs. The college also offers a Master of Science degree in athletic training. In 1842, the college began admitting women, becoming the first coeducational institution in Indiana and the seventh in the nation. Franklin College has historically maintained an affiliation with the American Baptist Churches USA. For more information, visit www.FranklinCollege.edu. Find Franklin College on Facebook and follow @FranklinCollege on Twitter.



Greenwood Public Library

The Greenwood Public Library exists to serve our community with resources and services to enrich each life. For 100 years, GPL has been at the heart of the community. As we look to the future, we embrace a vision of our community where people are reaching their potential for success. To that end we actively seek to provide resources, opportunities, and connections that enrich lives, promote discovery and foster personal growth for its citizens.



Indy South Greenwood Airport

Indy South Greenwood Airport welcomes and services both local and transient aircraft, jets, turbo props and pistons. It hosts two flight schools, aircraft rental services and two aircraft maintenance facilities, providing 24-hour customer service. Nearly 100 aircraft are based locally, and operationally 28,000 aircraft take-off and land at Indy South annually.



Indiana State University College of Technology

Indiana State University College of Technology is composed of five departments including Applied Engineering & Technology Management, Aviation Technology, Built Environment, Electronics and Computer Engineering Technology and Human Resource Development & Performance Technologies. Within these departments are 25 undergraduate majors and 7 graduate programs in which students get a chance to study within our 30 state-of-the-art lab spaces. The most recent program added to the College of Technology is our Bachelor of Science in Engineering including concentrations in Civil, Industrial, and Mechanical. We have many other specialty programs including Packaging Engineering Technology, Safety Management, Professional Aviation Flight Technology, Adult and Career Education, and Automation and Control Engineering Technology. We are proud to house Army and Air Force ROTC within the College of Technology. For more information or to learn how you can enroll, visit the College of Technology website at www.indstate.edu/technology.



International Brotherhood of Electrical Workers-Local 481

We are an exclusive hiring hall for over 90 Union Electrical and Telecommunication contractors in Central Indiana. We are a proud partner with the National Electrical Contractors Association (NECA) of Central Indiana. Together we offer apprenticeship opportunities through our state of the art training center, The Electrical Training Institute. We also represent workers in other classifications including motor and sign shops, manufacturing and casino workers. Together we make up a diverse membership of more than 2700 members in central Indiana and over 750,000 nationwide.



IUPUC

Are you creative? Do you like to see how things work inside and out? Are you a problem solver? If so, a career in engineering or technology might be for you and the Purdue School of Engineering and Technology, IUPUI, is a terrific place to check out. We offer Purdue University degrees in many different engineering disciplines including biomedical, computer, electrical, energy, mechanical, and motorsports as well as IT related degrees and a host of engineering technology degrees. Be sure to ask us about our newest Bachelor of Science program in Technical Communication too. Oh – and we even offer a degree in Music Technology and Music Therapy – but take note – finishing these two programs result in an Indiana University degree. Located in downtown Indianapolis, the possibilities are endless. Want to know more? We love to show off the amazing things happening within our school and on the campus. Call or send an email to make a visit: 317-274-2533 or etinfo@iupui.edu. You can always find more info at our website too: <http://www.engr.iupui.edu>.



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. 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 community along with courses and programs that transfer to other colleges and universities in Indiana. It is accredited by the Higher Learning Commission and a member of the North Central Association.



Johnson County Public Library

Since 1911, Johnson County Public Library has worked toward improving the quality of life for all citizens of Johnson County, Indiana. Our mission is strengthening our community by connecting people, resources and experiences. Throughout the past 100 years JCPL has expanded and now offers four branches and a Library Services Center. We also offer Digital Content through ebooks, downloadable audio and video, and emagazines. Check out all your library can do for you at <http://www.pageafterpage.org>.



Nachi

Nachi is a worldwide manufacturer of innovative products: bearings, precision cutting tools, hydraulic equipment, machine tools, robots and specialty steel. We are proud to deliver products manufactured to the highest possible standards and maintain an ongoing commitment to incredible quality.



NSK Corporation

NSK is a world wide manufacturing company that produces motion control products. Our products help make the world move. Our Franklin Campus is home to NSK Corporation and NSK Precision America. NSK Corporation produces HUB bearings and TRB Bearings for automotive customers. NSK Precision America produces linear guides and ball screws for industrial customers and the medical industry.

As a company, we offer a wide variety of career paths. Our STEM paths include Machine Operators, Engineering, Maintenance and Quality. Other paths include Supply Chain, Human Resources and Accounting. For more information on our company, please visit our website www.nskamericas.com.



Nestlé Waters North America

Nestlé Waters North America provides people with an unrivaled portfolio of bottled waters for healthy hydration. Brands such as Poland Spring®, Nestlé® Pure Life®, Perrier®, and S. Pellegrino® have driven Nestlé Waters North America to be the third largest non-alcoholic beverage company by volume in the U.S. Nestlé Waters North America also owns and operates ReadyRefresh SM by Nestlé®, the largest home and office water delivery service by volume in the U.S. Based in Stamford, Connecticut with some 8,500 associates, Nestlé Waters is committed to reducing its environmental footprint across its operations. As a natural resource company, Nestlé Waters sustainably manages our 47 spring sources and maintains nearly 14,000 acres of natural watershed area. The company is also committed to creating shared value and being a good neighbor in the 140 communities where it operates in the U.S.



Poynter

Poynter is Indiana's largest full-service sheet metal and custom metal crafter. Our capabilities include fabrication and installation of ventilation and exhaust systems, dust collection and extraction systems, vent and fume hoods, architectural wraps and cladding, tanks and pressure vessels, structural components, handrails, paint and spray booths, machine guarding, duct cleaning services, and custom fabrication. Headquartered in Greenwood Indiana, Poynter serves clients throughout the United States. No job is too large or too small for Poynter's professionals. Our team of innovative engineers and skilled craftsmen can design and fabricate anything from complex CAD designs to customer ideas. Our highly trained installation crews can then put these components and systems into operation. Whether they're installing a simple component or a complex system, their attention to quality and detail assures our customers of long-term reliability and efficiency. Because we understand that it's important not to have a negative impact on normal business operations, our crews operate 24/7. We are always there when our customers need us to be there. Recently, Poynter was honored to be accepted into the premier Peer Group of like-minded sheet metal contractors focused on implementing best practices nationally across the country.



Purdue Polytechnic Institute - Purdue University, West Lafayette

The Purdue Polytechnic Institute academic programs encompass a learn by doing philosophy with team based projects, global immersions, and theory-based application. Areas of interest include Aviation, Computing and Graphics, Construction Management, Engineering Technologies, Technology Education, and Technology Management. The Polytechnic learning experience is designed to produce graduates who not only have deep technical knowledge and applied skills but also possess problem-solving, critical thinking, communications, and leadership skills sought by global industries and communities.



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.



University of Indianapolis

University of Indianapolis, founded in 1902, is a private liberal arts institution offering 100+ undergraduate degree programs, 37 master's degree programs, six doctoral programs, and a variety of certificate programs. Personalized attention, experiential learning, energetic culture and a student-to-faculty ratio of 12:1 are just the beginning of what makes University of Indianapolis unique. The university recognizes that college is more than taking classes; the experience is about building a lifelong foundation. The university's motto, "Education for Service," is central to the institution's identity and purpose. This philosophy is integrated into the curriculum of every academic program. Students and faculty alike participate in service learning trips, volunteer opportunities, and community involvement projects, often in the context of their own careers.



Wilhelm Construction

Often, the word construction is associated with images of pencils, tools, cranes and hard hats. In reality, construction is people. Our people who assist in the design and drawing process, build with tools, operate cranes and don safety gear. Because of our people clients trust us to deliver construction management, general construction and specialty trades. Through their exceptional quality, unbreakable commitment to communities, and fundamental core values like honesty and integrity, our people work tirelessly to make a difference. Wilhelm is honored to be part of the many buildings and structures showcasing the strength, passion and endurance of the human spirit. From complex, new and renovation projects for higher education, healthcare, life sciences, commercial, parking, industrial, manufacturing, power and public works facilities, Wilhelm's legacy is Building Together.

Career Pathways Activity

Located in the Automation Building (Building G)

NEW ACTIVITY!

Make sure to stop by the Career Pathways activity to find out more about eight STEM career paths! You will learn from industry professionals about the education, skills and job role/responsibilities for the career paths.

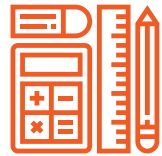
Skilled Trades

Occupations that require a special skill, knowledge or ability which can be obtained at a college, technical school or through specialized training. This career path provides an alternative to jobs that require four years of college education.



Manufacturing Support Engineering

Support production or manufacturing operations to ensure products meet customer requirements; improve manufacturing processes.



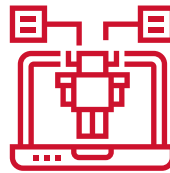
Product Engineering

Develop new products, redesign existing products, and perform research and testing on product concepts.



Process Engineering

Develop, install and monitor the equipment and processes that turn raw materials into an end-product.



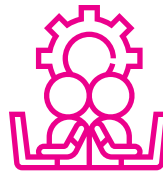
Computer Sciences

Write computer codes for IT devices and keep devices and networks safe.



Technical Customer Support

Connect customers with the product(s) they need. Help repair or troubleshoot customer's existing equipment.



Mathematics

Analyze and interpret statistical data. Help predict market trends or customer needs.



Science

Collect information and analyze organisms including plants, animals, bacteria or chemical substances.



Are You Smarter Than an Engineer?

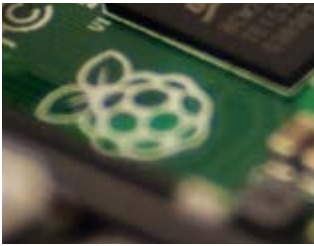
Located in the Automation Building (Building G)



Do you think you have what it takes to outsmart an engineer? Come by the Are You Smarter Than an Engineer station to test your STEM knowledge against one of Endress+Hauser's engineers.

CodeBusters Activity

Located in the Automation Building (Building G)



Make sure to check out the CodeBusters activity. Use Raspberry Pi to see how easy and fun programming can be. Examples displayed will illustrate the wide range of possibilities with Raspberry Pi and the various programming languages available. The open concept of the Pi allows you to see how technology, that you use every day, simply works!

3D Printing

Located in the Automation Building (Building G)

Guess what? The 3D Printing booth is back again this year! Stop by the 3D Printing booth to check out live printings and get a 3D printed giveaway item.

You can also check out the 2019 CCEF 3D Printing Content winning design. The Greenwood Public Library partnered with CCEF to host a 3D printing content. Entries were designed and submitted to a selection committee. Come by the booth to see the winning design and find out details for next year's content.

Outside Exhibit



Make sure to go check out Cummins, located outside the Sales Center (brown brick building).

See the Marketplace map for location details.

PTU CHALLENGE

Sign-up inside the PTU®
5:30–8:00 p.m.



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!



Student participants only.

Winner will be announced after the event via email.



Student Passport

Instructions for this activity are listed on the passport. When you're ready to turn in the passport, fill in your contact information and drop it off at one of the passport drop box locations. Winners will be contacted by phone or email after the event.



STEM Studios

Located in the Automation Building (Building G)
6:00–8:00 p.m.

STEM Studios provides future subject matter experts an opportunity to be in front of the video camera. You'll answer STEM-related questions in a short, interview-style setting. Come up with creative answers to the questions asked to demonstrate your knowledge and insight!





Robotics

Located in the Customer Center Auditorium
5:45–8:30 p.m.

Join us in the Customer Center for a Robotics exhibit you will not want to miss! Robotics teams from the local Johnson and Southern Marion County school systems will be on-site to show off their work, talk about how STEM and robots go together. Come score a goal with the robots! Experience the thrill of driving a robot and filling up your passport.



CyberCards Robotics
 (Southport High School)



6190 Cyberstorm
 (Center Grove High School)



Disaster Management
 (Center Grove High School)



Red Alert Robotics
 (Center Grove High School)



Wired Warriors
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Panic In The Build Room
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MECHAlosaurs
 (Indian Creek High School)

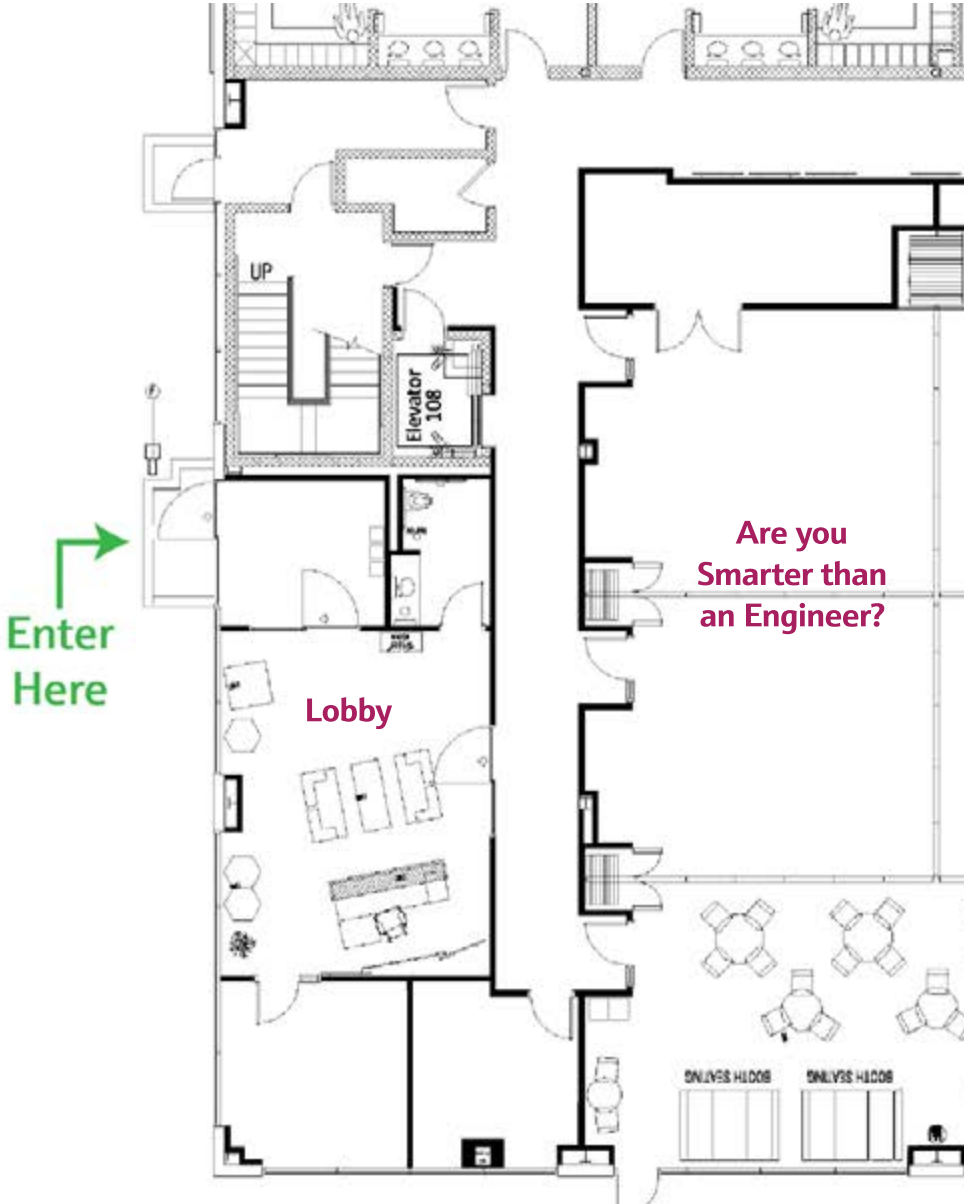


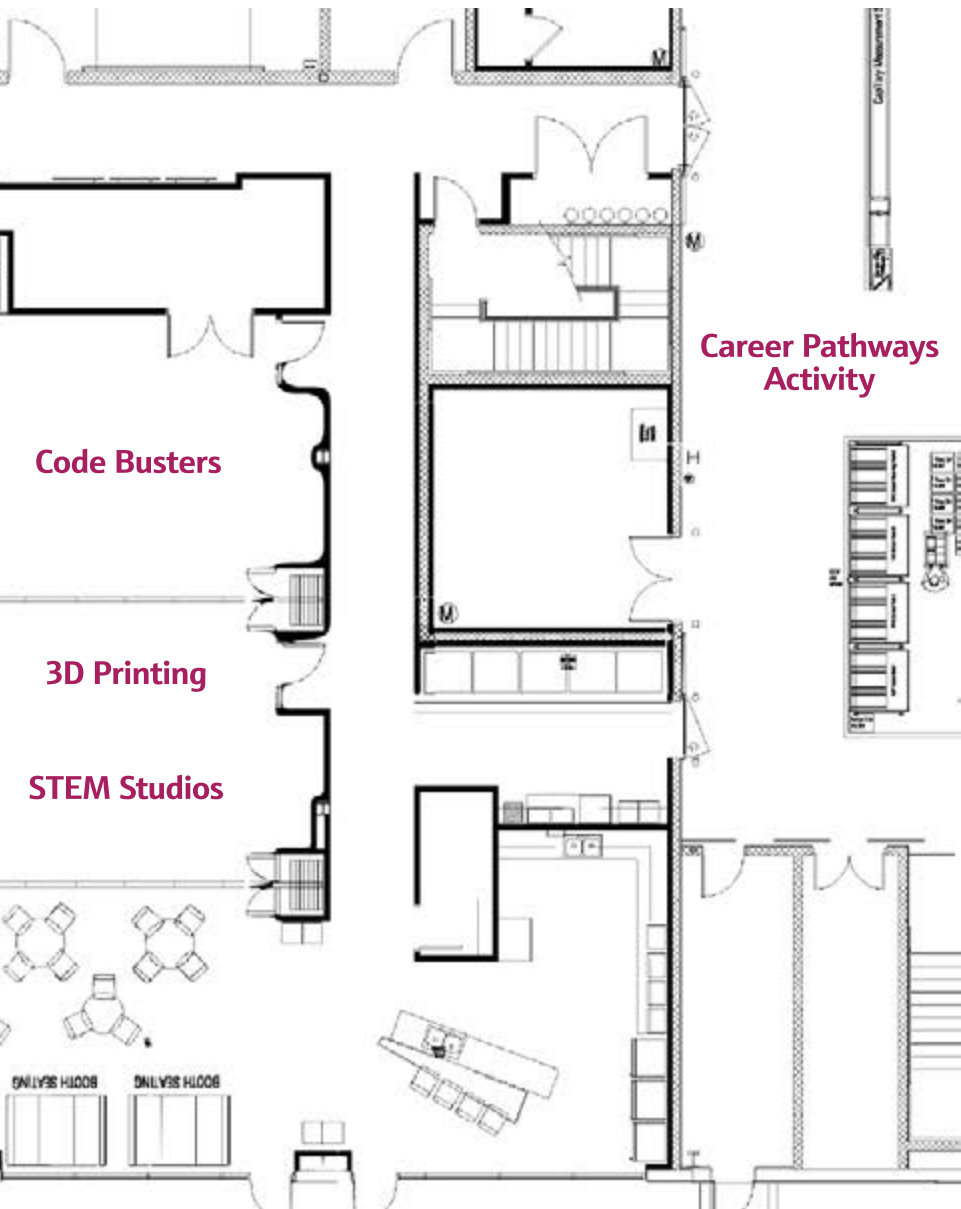
8791 The Green Machine
 (Greenwood High School)



8793 Wired Woodmen
 (Greenwood High School)

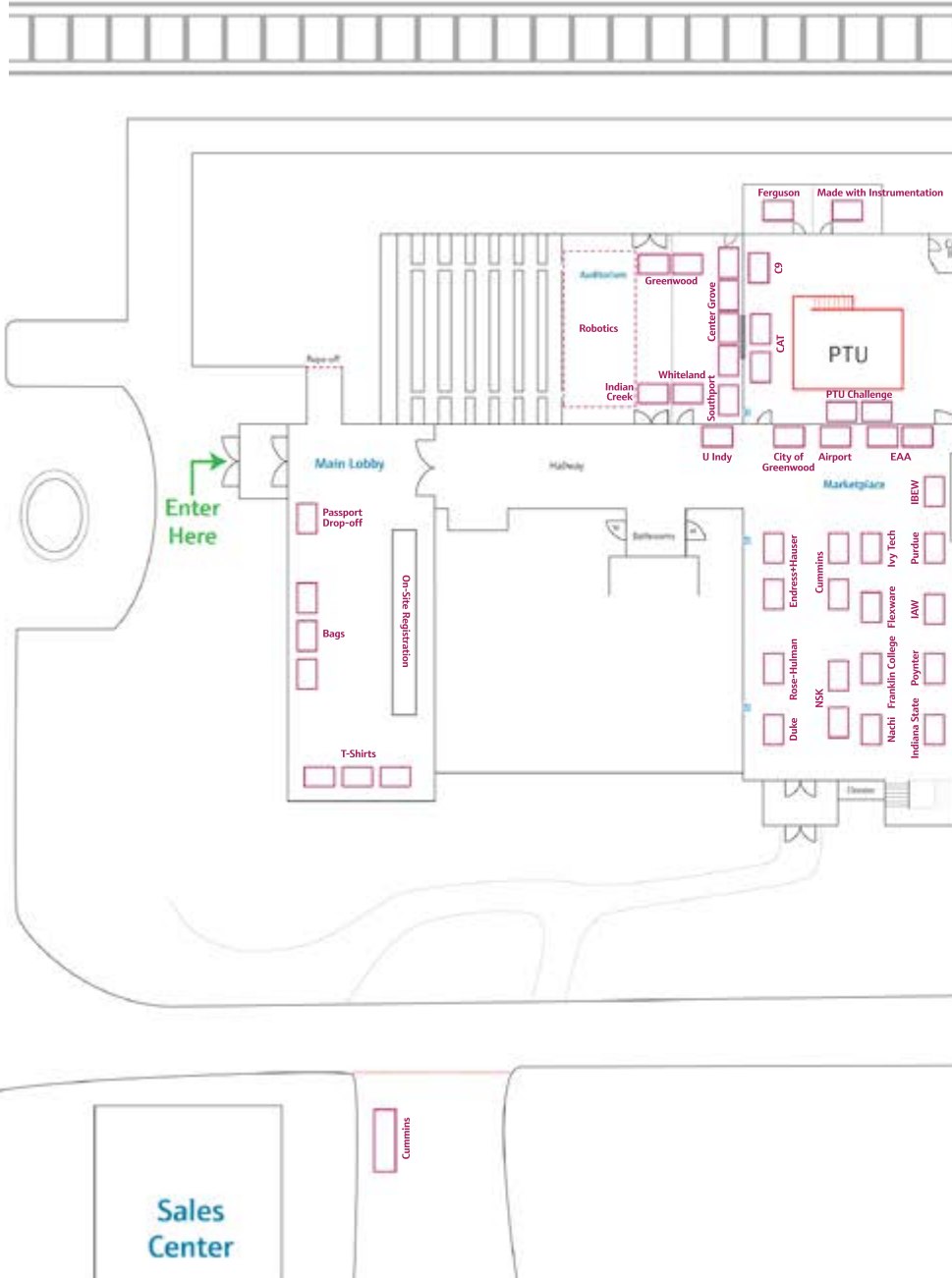
Automation Building (Building G) Map



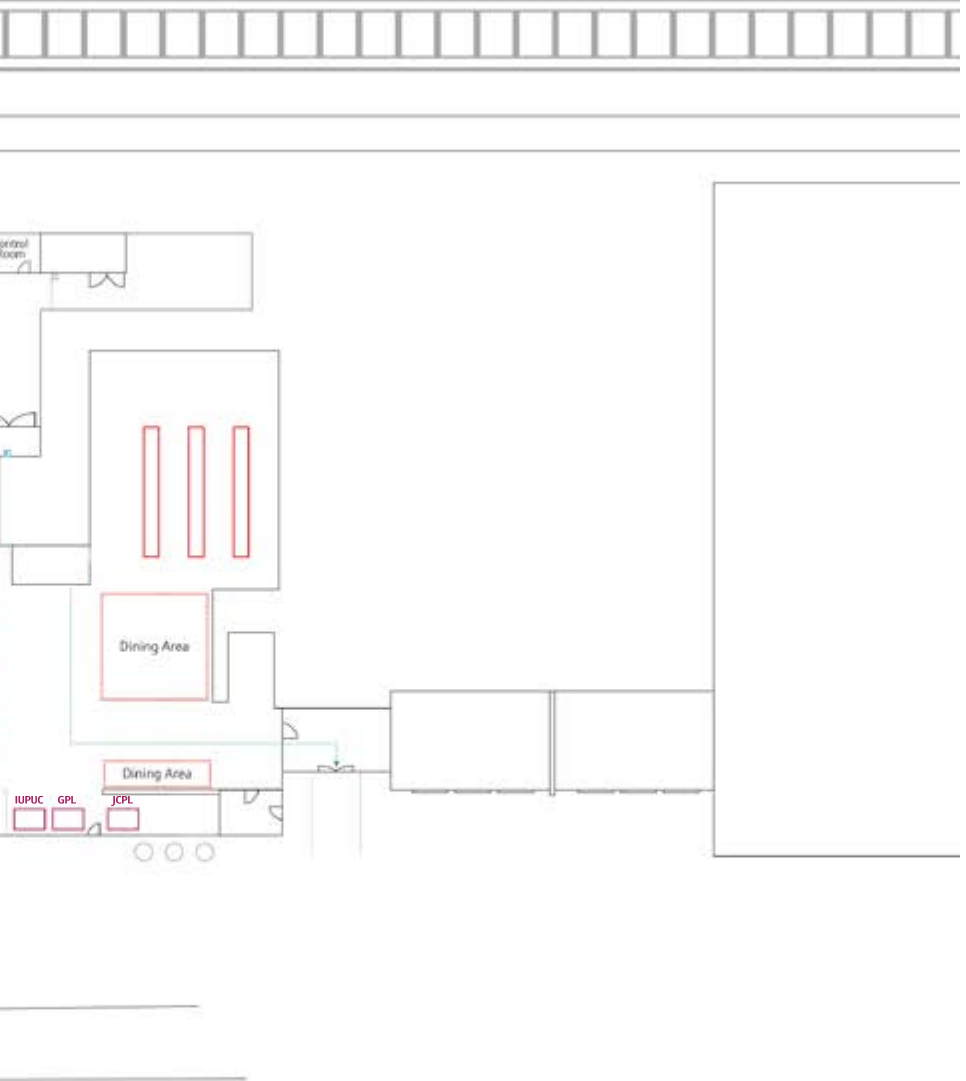


Marketplace Map

Customer Center (main building)



Railroad





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