



COMPETITIONS & BREAKOUTS

Session		Sponsor/Host	Description
SKILLED TRADES COMPETITIONS			
S1	Advanced Carpentry Competition	Swartz Contracting	Teams of up to 3 students entering the Advanced Carpentry Competition will be a creative construction project by each team. Teams will be given building materials, hand tools and a fixed time to construct a project of their choosing. The finished project will have maximum dimensions of 6'x6'x6' and must include <u>one</u> of the following: window opening, incorporation of hinges, drawer, four legs or mitered cuts.
S2	Automotive Repair Competition	UNOH	Students will work independently and will be given 3 hours to complete 5 different automotive repair tasks. Scores will be based on completeness, accuracy, and quality of the work performed. Each student must supply a resume and cover letter for this competition. Note: If there is a tie, the tiebreaker will be a two paragraph essay describing the 4-stroke engine.
S3	CNC Programming Competition	Apollo Career Center	Students will be given a CNC programming assignment, with a maximum of 3 hours to complete the tasks. Scores will be determined based on accuracy of the code written, and time to complete the task. Students should bring their own laptop or simulator for this contest.
S4	Construction Teamwork Competition	Apollo Career Center	A 4-special team competes to complete a multi-dimensional construction project within the timeframe allotted (3-4 hours). Team members' skills must include carpentry, masonry, electrical, and plumbing. The assigned task will apply all 4 disciplines to the construction project. Students are responsible for all PPE and tools to complete this contest. Students should bring battery operated tools if possible.
S5	Electrical Competition	Apollo Career Center	Contestants are required to complete a residential electrical project adhering to the latest edition of the National Electric Code (NEC). Working from drawings and specification sheets, contestants are required to rough in and device out an electrical residential project. Judging is based upon general workmanship, accuracy of layout and installation, and adherence to the current NEC and standard industry safe practices. Installation will be tested at judge's discretion after completion of contest. Students are responsible for PPE and tools to complete this contest. Students should bring battery operated tools if possible.
S6	Excavator Rodeo Competition	Bobcat of Lima / Apollo	Each competing student will have approximately 10 minutes to attempt to maneuver a front-end loader to pick up a basketball and drop it in a basket as often as possible in the time allotted. Scoring will be based on successful performance.
S7	MIG Welding Competition	Diamond Manufacturing	Individual welders will be given specifications to complete several MIG welding exercises in the fastest time possible. Scoring will evaluate precision, quality, and accuracy of the welds, in addition to time required to complete the assignment. Maximum time available is 90 minutes. Students must have all PPE to participate.
S8	Pipe Welding Competition	Plumbers & Pipefitters UA Local 776	Individual welders will be given specifications to complete several pipe welding exercises in the fastest time possible. Scoring will evaluate precision, quality, and accuracy of the welds, in addition to time required to complete the assignment. Maximum time available is 90 minutes. Students must have all PPE to participate.
"BRAIN GAMES" (STEM Competitions)			
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BG1	Business Simulation Challenge	UNOH Jim Bronder	Teams of up to 3 students run a computerized business model (instructions provided at the beginning of the event) that simulates financial operations for a hypothetical manufacturing company, attempting to maximize profits each quarter for twelve quarters. Students are able to control sales, staff costs, operating expenses, transportation and logistics costs. The team earning the most profits wins the Gold medal.
BG2	Cake Craziness	Apollo Career Center & Shawnee High School Vanessa Gronas	Students are challenged to ice the most creative, best looking cake possible using professional baker tools, against the clock!
BG3	Crane Design Challenge	Ohio Northern University Todd France	Teams of up to 4 students will be given a standard Tinkertoy set and will be challenged to create an original design that most effectively lifts a given weight
BG4	Design a Catapult Competition	Tuttle/Touchstone Construction, Inc. Brent Stechsulte	Teams of up to 3 students will be given a set of materials and a reference photo. Using their engineering ability, creativity, and the materials provided, they will need to construct a catapult in the given time allotted (see schedule). They will also have to test fire and ultimately compete against other teams to see who can catapult their projectile the farthest total distance.
BG5	Engineering in a Box Competition 2.0	Ohio State University Sabrine Jeschonneck	Teams of up to 3 students are provided with an undisclosed engineering "build" challenge to construct a secret working prototype using only the pieces and parts provided in their sealed cardboard carton. All competing teams are provided the same components, and are tasked to build their prototype to optimize its performance. Team scores are based on best performance measured.
BG6	Hammer Down	Apollo Career Center Mike Sebenoler	Teams of up to 3 students work together to create a bookshelf out of pallets and wood pieces, looking only at an existing fully built example and a list of materials required. Tools provided are hammer, nails and a tape measure. Team results will be scored based on time to complete, accuracy, and workmanship.
BG7	IT Network Assembly Showdown	Perry ProTech & UNOH Michael Yee	Teams of up to 3 students attempt to build and configure an operating computer network as quickly as possible from the components provided. Requires a working knowledge of network software, routers, switches and operating systems.
BG8	Mind-Numbing Escape Challenge	UltraSound Special Events Kevin Wieging	Teams of 3 students compete in an Escape Room (trying to solve mysteries to ESCAPE the room ahead of the clock), Mind Ball Hockey (moving a ball to the goal using only your brain waves), and two more mystery puzzles soon to be announced. Students will need to use their problem solving skills together as a team in order to score points.
BG9	Operation Game Challenge	UNOH Mindy McDonald	Teams of up to 3 student identify medical terminology and conditions by placing them accurately on a giant Operation Game Board. The team with the fastest time and most accurate identifications wins the Gold.
BG10	Perfection	Crown Brad Jordan & Tess Elshoff	Perfection isn't Just a Game....What can you Perfect? Do you have what it takes to PERFECT our process? Can your team of 6 be the first to put all the PERFECTION pieces correctly into the board before your competition ends? Test your skills in teamwork, problem solving, creativity and scientific thinking to WIN at this game! Put your ideas into ACTION and don't stop! You'll need to be quick to BEAT the CLOCK!



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BG11	Rescue Mission	Apollo EMS and Fire Brock Yinging & Jeff Orphal	Teams of 3 will work together to rescue a "patient" from a harmful accident. The team will use their problem solving skills to determine if there are health issues to triage and navigate obstacles to save the "patient" from additional harm.
BG12	Robot Coding Challenge	UNOH & B & K Tool Ben Frail	Teams of up to 3 students will compete in a robot programming challenge to navigate a robot through an obstacle course. Each team member will have to work together to program the robot to navigate through the course by configuring its path. Teams will be scored based on their time through the course along with any penalties incurred.
BG13	Robotic Roundup	Ohio State Extension Mark Light & Jason Hedrick	Teams of 3 will work together to determine a cost effective manner to handle "livestock". The challenge is to build a handling system that will not break the piggy bank and get "livestock" from one location to another efficiently.
BG14	T-shirt Design Competition	MODO Media Sally Windle	Students electronically submit graphic design entries in advance of MakerFest for judging by design professionals of their best design for the student T-shirts to be distributed and worn at MakerFest. Student submissions will be judged on creativity and design principals. The judges will select the winning T-shirt in time to create T-shirts displaying the winning design. All entries will be displayed on a video display at MakerFest.
BREAKOUT SESSIONS			
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B1	AcuMax Index Assessment - How Are You REALLY Wired?	Acumax, Inc.	Participants take a 5-minute survey and then learn from the results how they are "wired", why they react the way they do to certain situations, and what kinds of jobs are just not a good match for their "wiring".
B2	Amazing M1 Abram Tank Technology	General Dynamics	The experts from General Dynamics will demonstrate how the M1 Abrams Tank operates using a min-tank called "Half Pint" and talk about what types of jobs in Lima it takes to create this amazing vehicle. Experience the 1/2 scale fully operational mini-tank and enter a drawing for a tour of the plant in Lima, Ohio (must be a U.S. Citizen)
B3	Apprenticeships: The Other 4-Year Degree	Plumbers & Pipefitters UA Local 776	What it takes to land an apprenticeship in the construction trades, plumbing and pipefitting trade, electrical, HVAC/R and welding trades, and why you should care.
B4	Becoming an Electrician! See What It Really Takes!	IBEW Local 13	An information discussion from a licensed electrician about what this skilled trade offers its practitioners, how much money you can make, what kind of schooling is needed, and how an apprenticeship in the International Brotherhood of Electrical Workers (IBEW) can ensure you a successful career.



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B5	Cracking the Code: Cryptography Techniques	Rhodes State College	Students will be taken through lab exercises to familiarize them with the process of tracking cyber attacks. Students will learn various cryptography techniques to encrypt information and decrypt encoded information to keep data safe from attacks. Solve the puzzle, locate the source and type of attack, and win the competition! Ghi ncu tofl jgnb ddl! (May the best geek win!)
B6	Do You Have What It Takes To Be a Project Manager?	Paychex	There is a huge shortage of trained project managers in construction, in product development, in consulting in manufacturing, in information technology. And it pays very well. Check out what it takes to be a project manager, and see if this professional achievement might be in the cards for you.
B7	Extreme Interview Makeovers	Allen Economic Development Group	30-minutes of personal coaching, one-on-one, first an "Extreme Interview Makeover" with a senior HR executive from one of the region's top employers, giving the student personal advice on how to make a great first impression. Then a mock interview with another professional, giving the student the chance to practice what was just learned.
B8	Fright & Flight OR Calm & Confident: Emergency Response	Lima Memorial Hospital	If you and your friends were to witness or be the first on the scene of a serious vehicle accident, would you know what to do to be of assistance? How about if one of your teammates collapsed and became unresponsive during a basketball practice? This workshop will help you know what to do in these situations and more.
B9	How to Know If You're Cut Out to be an Engineer	Ohio State University - Lima	Engineering is one of the best paying, most sought after professions in the world. But it's NOT for everybody. If you're thinking of possibly getting an engineering degree, this workshop from the experts at Ohio State University give you the truth about what it takes to succeed as an engineer.
B10	How to Launch a Tech Startup	The CoWorking Center	What does it take to start a tech startup? If Bill Gates, Steve Jobs, and Jeff Bezos can do it, how about you? Experts explain how a new tech start gets rolling, from idea creation to finding funding, to protecting your original idea. Come learn if you are up for this exciting world!
B11	Learn the A-B-C's and X-Y-Z's in CNC Machining	Rhodes State College	Learn about and receive hands-on experience on this in-demand career. Following a brief presentation and demonstration on the Computer Numerical Control (CNC) units to be used in this session, students will receive a piece of material, clamp it on a CNC mill and use its interface to program the mill to "cut or engrave" their name or other appropriate text of choice on the material, using the subtracting manufacturing process associated with CNC machining. Students can keep their machined product.
B12	Leveraging Social Media to Land Your Dream Job	NOW Marketing	We will uncover the hidden powers used in social media to land your dream job. We will walk through how to harness the power of social media relationships and walk away understanding how to audit your digital footprint, what recruiters are looking for, how to stand out ahead of the competition and the rules of the new digital resume.



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B13	Pre-Apprenticeships: An Option During High School	Rhodes State College	What is a pre-apprentice? Do you want to explore a career while you are in high school? This program will take you on an adventure to learn about how you can earn college credit and gain job experience. Set yourself up immediately for employment in an in-demand occupation. Take the first step toward additional credentials and degrees for better paying jobs in these careers.
B14	Professional Truck Driving, Can You Handle It?	Apollo Career Center / American Trucking Association	There is no professional more in demand right now than a professional truck driver with a Commercial Drivers License (CDL). Everybody's looking to hire them, and the money is quite simply terrific. If you don't know what it takes to do this great gig, check out this breakout session and experience first-hand what it feels like to be behind the wheel of a semi using a state-of-the-art simulator.
B15	So You Want To Make It In The News	WLIO/Lima	Students will get to experience story-telling skills by playing the role within a news cast team that will be reporting the the field about MakerFest. Students will work in teams to practice the roles of a real news production team as reporters subjects, camera operators and writing a script
B16	The Down and Dirty of Soil Careers	AC Soil & Water	Working with soil is fundamental to many exciting and challenging careers from food and fiber production to infrastructure, building and development. Explore soil limitations and the concept of load bearing capacity through hands on activities. Learn how many different professionals must have an in-depth understanding and working knowledge of this important natural resource.
B17	A Robot's Guide to the Galaxy	UNOH	Discover the ever changing world of robotics and automation with the faculty from the UNOH Robotics & Automation program. Together, we will explore how automation influences our daily lives and how it is being used to shape our future. Through discussion and hands on demonstrations, come and see what it's like to be part of the Robotics & Automation program at UNOH.
B18	This is Women's Work, Too!	Ohio Women in Trades	"THIS BREAKOUT IS FOR GIRLS ONLY! Up to 20 girls each hour will be given the chance to learn about and explore, hands-on, the highly lucrative careers available to young women in the skilled trades – as a welder, pipefitter, electrician, carpenter, and more. Participants will get to cut through steel with a orch and try different tools of the trades under the guidance of professional tradeswomen. They can ask questions, hear stories, and consider if a skilled trades career is right for them. No prior experience with tools is required."
B19	How to Market YOUR (Generation Z) Resume to the Top in a World Full of Baby Boomers!	OMJ - Allen County	How do you make sure your resume gets noticed? This workshop presents you with tips and tricks from the professionals at OhioMeansJobs Allen County who deal with hundreds of resumes every week and who also work with over 500 local employers. You are Gen Zers and you are sending your resumes to those who are GenXers, Millenials and Baby Boomers! How do you relate? Learn how to relate to these generations! In addition, tips on how to survive in the working world if going there directly after high school or graduating college will be discussed. This session will be helpful as you move into the workforce.