



January 2019

Computer-Aided Design AND Engineering Technologies

News about a College Tech Prep Program from the Six District Educational Compact

Worksite visits highlight opportunities in manufacturing

Seeing molds made at Colonial Machine



During October, which is National Manufacturing Month, CADET students took advantage of worksite visits including seeing advanced manufacturing at Colonial

Machine in Kent. They observed processes from engineering and designing of plastic injection molds for everyday recognizable items to the production of molds. Students were able to see Colonial's DMG Mori 5 Axis machine, mold polishing, assembly and fitting as well as watch the EDM (electrical discharge machine) cut highly detailed mold parts that would take longer to machine traditionally.



Visiting Copen Machine to see Swiss Lathe

CADET students also toured the high production facility of Copen Machine in Kent. Students learned about tolerances in the 4th and 5th decimal places. Copen Machine produces parts by the thousands using a style of machine called a Swiss Lathe. All of the chips from the machining process are separated from the coolant oils and then both chips and coolant are recycled.

Kyocera SGS Precision Tools hosts students

Kyocera SGS Precision Tools hosted the CADET students at the End Mill Division in Cuyahoga Falls, where students witnessed the production of high-quality carbide end mills. Company representatives showcased their LEAN production methods and highlighted their involvement in major industries like aerospace, energy, automotive and medical. Students heard how they could become part of the K-SGS Precision Tools team and benefit from their online Tooling U assignments.



Watching airline interior manufacturing at Schneller

Airplane interior materials are designed and manufactured in Kent by Schneller, LLC. After a tour, CADET students interacted with many Schneller's engineers and production associates. **Trudy Cheney**, director of Human Resources, expressed the company's interest and need to get

young people interested in manufacturing. She talked about the "soft" skills, required when working on a team and what it takes to succeed in a career in manufacturing. Schneller is the world's largest supplier of interior laminates for commercial airlines. With more than 50 years in the industry, Schneller has grown to serve virtually all of the world's major aircraft manufacturers, airlines, and rail car manufacturers with cutting-edge design, technology, and flexible manufacturing.



Six District Educational Compact

Cuyahoga Falls • Hudson • Kent • Stow-Munroe Falls • Tallmadge • Woodridge

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Professionals share knowledge in CADET lab



Reuther Mold president talks to CADET students

Karl Reuther II, president and third generation owner of Reuther Mold in Cuyahoga Falls, visited the program where he learned more about CADET, as well as

shared the opportunities in the machining and engineering fields at Reuther Mold. Students learned that the work they complete through Tooling U, an online industrial curriculum, is recognized at Reuther Mold.



Architect talks about careers

Architect **John Elsey** of GBC Designs in Akron spoke to CADET students about careers in architecture and internship possibilities. He shared some of his favorite design and design-build stories, as part of the architectural unit.

Engineers with Sandvik Coromant relate stories

Tim Finnegin and **Heather Motz**, Applications Engineers with Sandvik Coromant, a global industrial engineering group, visited the CADET program to talk about careers in manufacturing. They related their stories of their career journeys and finished those with encouraging words. Motz addressed women's opportunities in the manufacturing industry.



Working part-time at Kyocera SGS

Mark Montgomery, Stow-Munroe Falls CADET II student, is currently employed part-time with Kyocera SGS Precision Tools in Cuyahoga Falls. He is pictured with **Dan Yoak**, Manufacturing Coach.

Meet a completer working at Swagelok in Solon

Dominic Bernadine, 2015 Roosevelt graduate and Wood Product Technologies completer, is working in the advanced manufacturing world running a multi-axis turning center at Swagelok in Solon. He was encouraged to apply for the job by classmate **Bryce Hammond**, 2015 graduate and Wood Product Technologies completer, who has worked at Swagelok for two years. Both students learned about G code and how to set up machines in the program. Swagelok offers training, as well as tuition reimbursement.



Mastercam demonstration highlights new software

Kevin Richardson, FASTech Mastercam sales representative, demonstrated the

newest release of the Mill Turn module, which works specifically with the turning center in the lab. Level II student **AJ Tassone**, Stow-Munroe Falls, capitalized on the new information and received assistance in designing a mold for fishing lures for his senior capstone project.



Making a fire pit for silent auction

Do you like a good old-fashioned wiener roast and s'mores? CADET Level II students were treated to food and fun while testing out a fire pit designed and fabricated in the lab by **Jarod Shumaker**, Tallmadge. The steel fire pit design included a number of manufacturing processes including CAD drawings, CNC programming, waterjet cutting and welding. The fire pit was donated to Roosevelt's Silent Auction to raise funds for the prom.