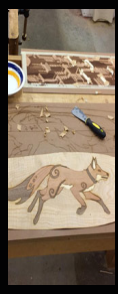
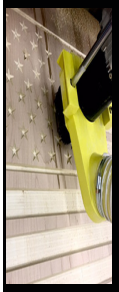


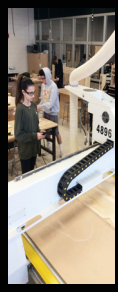
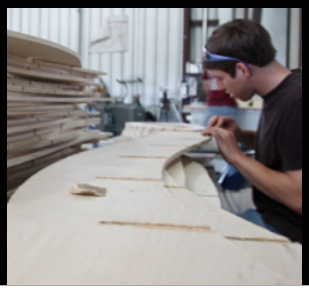


Techno CNC Systems

Educational





Techno CNC Systems
Educational

Industrial CNC Equipment at Exclusive Educational Prices

Techno CNC Systems Educational Sector offers high speed, affordable industrial quality CNC Routers and CNC Plasmas in a wide range of sizes with work areas available from 12 x 12 to 5 x 10. All machines offer endless STEM opportunities. We have made it our goal to help the next generation of woodworkers/machinists to learn on the best CNC equipment in the country. We provide exclusive educational discounts to schools and Universities that are looking to incorporate CNC technology into their schools without surpassing a budget. Every machine is installed and supported by local Techno CNC Systems representatives to ensure a successful startup. We offer trainings to schools and Universities and live demos to help ensure success in your FabLab!

Routable Materials:
Wood, Plastic,
Foam, Non-ferrous metals,
Composites
And More!

We are proud to have installed our routers at over 100+ schools and Universities throughout the country:

Mineola High School, Commack High School, NYIT, Las Vegas University, South Dakota University, Windsor High School, University of Kansas, Philadelphia University, Lakeview School District, Columbia University, Indiana Senior High School, Cornell University, Armstrong High School, College of New Jersey, Luzerne College, Mifflin County School, New Albany Schools, Barren County High School, Monarch High School, Reynolds High School, Rachel Carson High School, Ohio Northern University, Pathways Academy and Design, Schuykill Valley High School, South Fayette High School, Syracuse University, Berea College, Central Catholic High School, York Central School, Plainview High School, Hemfield High School, Wentworth Institute of Technology, MIT, WM Grady Car Ted Ed HS, Stevens Institute, Bellingham Schools, Immokale HS, Sehome HS, Squalicum HS, Columbia University, Teachers College, Hartnell College, Farrell Area High School, Harold L Richards HS, Essex High School, Dwight D Eisenhower High School, East Stroudsburg University, Penn State University, Alan B Shephard HS, Floral Plain HS, Gorham HS, Ingomar Middle School, Auburn University, & more

See our complete line up of Educational CNC Routers to better your curriculum

Titan Series CNC Router
- 4x4, 4x8 and 5x10 Standard sizes
- 12 HP HSD high frequency automatic tool changer spindle with 8-position tool rack
- Maintenance free brushless motors and drives
- Automatic tool length calibration via closed loop touch pad
- Pneumatic material pop-up pins
- Vacuum t-slot table with main control gate value
- Easy to use hand-held controller • Open architecture works with all industry standard CAD/CAM software

Atlas Series CNC Router
- 4’ x 4’, 4’ x 8’ and 5’ x 10’ stock sizes (Special sizes available upon request.)
- 4 HP HSD high-frequency collet spindle
- Maintenance free brushless motors and drives
- Vacuum t-slot table with main control gate valve
- Easy to use hand-held micro stepper controller
- Open architecture works with all industry standard CAD/CAM software

HDII Tabletop CNC Router
- 20” x 34” Process area
- Precision ball screws on all three axis
- 2 HP high frequency collet spindle
- Brushless micro stepper motors and controls
- Vacuum T-slot table for easy part fixturing
- Automatic tool calibration pad
- Linear rails and bearings
- Easy to use Hand-Held Controller

HDS CNC Router
- 4x4, 4x8 and 5x10 Standard sizes
- 12 HP HSD high frequency automatic tool changer spindle with 8-position tool rack
- Osai industrial AC servo controller
- Maintenance free brushless Yaskawa AC servo motors and drives
- Automatic tool length calibration pad
- 4-zone vacuum T-slot table
- Pneumatic material placement stops
- Hand-Held pulse generator
- Easy-to-use Techno CNC interface
- Open architecture works with all industry standard CAD/CAM software

Venture Plus Series CNC Router
- 12 HP HSD automatic tool changer spindle with an 8-position rotary carousel
- Maintenance free brushless AC servo motors and drives
- 4-Zone vacuum t-slot table
- Pneumatic material placement stops
- Hand-held pulse generator with rotary hand wheel controls the axis selected
- PC with flat screen monitor, keyboard and mouse
- Open architecture works with all industry standard CAD/CAM software

Phoenix Series CNC Plasma Cutter
- Standard sizes: 4’ x 4’, 4’ x 8’, and 5’ x 10’
- PC based WinCNC controller
- Unique design, easy to learn and operate
- All steel construction for rigid platform
- Precision helical rack and pinion on X and Y axes with ballscrew on the Z-axis
- Electronic Torch Break away
- Brushless micro stepper motors and drives
- High-speed cutting up to 800 IPM
- Cuts up to 1.5” thick steel capacity
- Water table / Steel V-grid / Downdraft
- Automatic torch height control (THC)
- Multiple torch options available

HDII Tabletop CNC Plasma Cutter
- 20” x 34” process area
- Precision ball screws on all three axes
- Hypertherm torch
- Brushless micro stepper motors and controls
- Stainless steel water tray with vertical grid
- Automatic torch height control
- Linear rail and bearings
- PC based WinCNC Controller
- Electronic Torch Breakaway

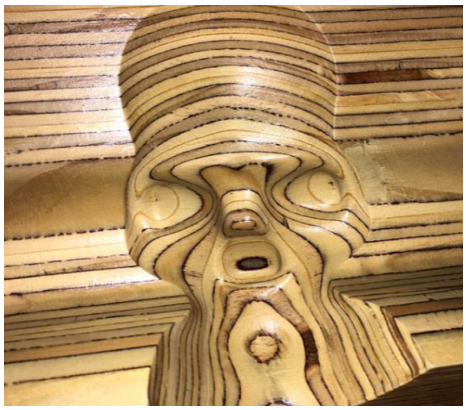
Venture Series Drill Bank Nesting Machine CNC Router
- 12 HP HSD high frequency automatic tool changer spindle
- Maintenance free brushless
- AC servo motors and drives
- 4-Zone vacuum t-slot table
- Pneumatic material placement stops
- Hand-held pulse generator with rotary hand wheel controls the axis selected
- PC with flat screen monitor, keyboard and mouse
- Easy to use Techno CNC Interface
- Open architecture works with all industry standard CAD/CAM software

Techno CNC STEM Educational Program Gallery

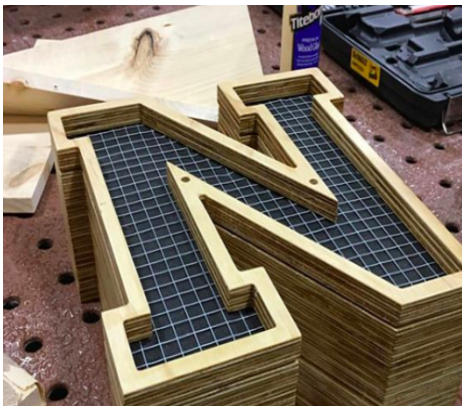
White apoxy and walnut used for the top of a wood table by Liberty High School students! Another school using their Techno CNC router for endless STEM opportunities.

We always love seeing the amazing work done by the students over at Fresno City College. Great work, Chris Lemas! (student at Fresno City College)

Awesome photos from Caroline Career and Tech Center! They are putting their Atlas Series CNC router to good use!! Great work, CCTC!

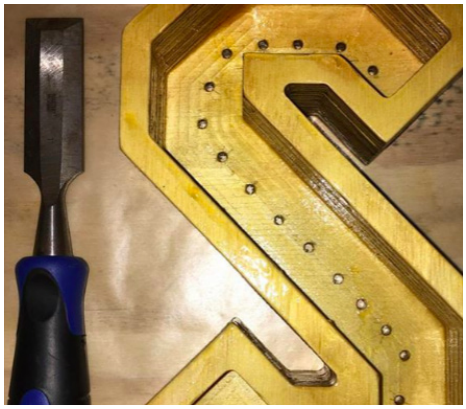


Cement skull project done by @the_fab_lab from Fresno State using one of our routers. Awesome job.



A project done by the Tech Ed students over at Fresno City College. They are using their CNC equipment to its fullest potential

A project done by the students at Snohomish High School. We love seeing how you all have flourished and adapted to schooling with CNC technology.



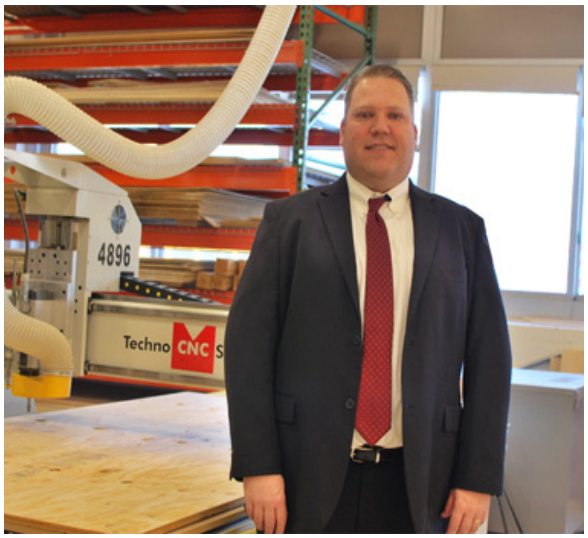
Fresno City College always tags us in the coolest projects. Here is a succulent planter they routed using our educational CNC router.

CNC milled shelves shared by Philadelphia University students.

Student quotes made on the CNC today at Castlemount High School. These signs look excellent.

CNC TECHNOLOGY DRIVING MHS STUDENTS TO A BRIGHTER FUTURE

The students of Mineola High School are some of the most talented individuals that Long Island has to offer. Eager to learn, students work hard day to day, not only in their core classes like math, science and ELA, but also enthusiastically in the wood shop to learn everyday skills. The school recently updated their entire Tech Ed woodworking and metal working classroom, switching from standard conventional methods of producing projects to an exclusive "Fab Lab" that consists of some of the most advanced technological equipment used in the industry. The new Fab Lab at Mineola High School is equipped with machinery that few other schools have on the Island– a CNC Plasma cutter and CNC Router from Techno CNC Systems. Whitney Smith, Principal at MHS, spoke proudly about the new Tech Lab and how it has effectively and efficiently changed the way the students are learning.



"Adding CNC to our high school program was really the next step for us," stated Smith. "We are always on the cutting edge of technology. We are always searching for the best tools for our students. Lastly, we have always had a traditional wood and metal shop, but now we are focusing on showing the students the latest and greatest technology in automation and the students are very excited about it. We already knew our students had such great ideas, but now, it is incredible to be able to see these students take their ideas from inception to completion, using CAD/CAM technology," said Smith.

"The school was able to transform the lab from a conventional shop to an advanced lab for students to learn and enhance their engineering skills. The new technology in the Fab Lab has changed everything. All of our 8th graders get introduced to all the new equipment and do a problem solving activity. They get introduced to Aspire CAD/CAM software by choosing a letter of the alphabet, and setting up the job and creating a toolpath. The students are shown how to setup and operate the CNC router under the direction of the instructor," said Paul Sommer, Tech expert/teacher at Mineola High School.

"Having a space like this is unique. We are the only school on Long Island to have made the commitment to adding this technology and advanced learning which benefits our students. Another benefit about the space is that the 8th grade students are all given a chance to find a passion in CNC, thus getting them excited for the more advanced tech courses offered in 9-12 grade. We also partnered with Queensboro College, where students can also receive college credits for courses taken," Smith said.

Transforming the shop and learning the equipment was a challenge for the school, at first. The transformation was a huge commitment, but overall, was a necessity for the school to further their knowledge and better their classes. MHS now has grades 8-12 students flowing through the shop for all 9 periods of the day. "We are still learning how to integrate the new equipment into our teaching curriculum. It is a work in progress, but very much worth it. We also spend more time on designing and learning the Aspire, AutoCad and Inventer CAD/CAM programs. As a result, the types of projects have changed tremendously. Before, we used a lot of hard and soft woods, and now, we are using more plywood. We are getting the students to solve more real world problems such as seating, flat pack furniture, and space organizers." Sommer stated that, "The biggest challenge to adding CNC into our program was that we were given two high end CNC machines and high end computer design programs all at once. This was overwhelming in the beginning, especially since we had little to no experience with these types of machines/software. Thanks to the training and exceptional tech support from Techno CNC Systems, we were able to get through the first few months and begin to develop a curriculum for our students. Now, our students are able to use the software and run the machines with no problems. The possibilities are endless."

MHS recently created an entire robotics team. Smith states, "The CNC equipment has been tremendously beneficial for our new robotics team, as well. We are able to manufacture our own parts. We can customize any of our parts. It has also helped us with our alliances with other robotics clubs. We are now able to help other schools manufacture their own robotics parts." Not only is the Fab Lab used for classes and manufacturing robotic team parts, but it is also utilized for many other activities that the entire town requires. Sommer explained how the CNC equipment has completely transformed the theatre clubs in the elementary, middle and high schools of Mineola. "Once word got out that we could manufacture pretty much anything, we were getting requests from everyone asking if we could create their designs."

Paul Sommer and Andrew Woolsey, technology teachers at MHS, were also asked to help with theatre design. They were given the project to create stage lighting from the bottom. They were able to route out an entire stage lighting template. "If we had to do these by hand, it would have taken months. We had to create 6 of these and I was able to program it all within minutes, letting the router do the rest," said Andrew. The theatre director also requested props for the play Aladdin. The tech teachers were able to design and route perfect (and huge) theatre props for the play.

"The students are taught the software, but are given freedoms to think out of the box, challenging their young minds," says Sommer. Sommer uses online tools available to him and the students for learning and finding quick solutions to immediate challenges. He believes this is a great tool for students to use at home or in the shop, as a secondary way to master Aspire and AutoCad software. The program at MHS has completely transformed the learning process from conventional hand tools to now being able to design, program, and route whatever they imagine, as well as cut metals with their new CNC Plasma metal cutting machine from Techno CNC. "We had trouble cutting thick material so I had wanted to research a plasma cutter. We found Techno CNC and fell in love. The machine had great reviews and Techno was a local company. The plasma cutter has changed the welding class by allowing us to cut thick plate steel accurately. In the past, we used a torch or hand held plasma. Having local customer support has been so great– there is always someone there to help whenever we call and they come to us, as well," said Sommer.

The students have developed a passion for CNC's, and are even considering manufacturing as a future. "As a high school, it is our job to prepare our students for the real world. We want our students to leave high school with an idea and direction, and with the possibility of getting a job that they love after college. We are really focused on getting kids to pursue a pathway for their future here at MHS and we concentrate on having electives that pave that pathway. We are using this CNC equipment not only in tech classes but in our business classes, as well. The CNC equipment has allowed us to create a school store where students can actually showcase and sell their projects. Not only has the CNC equipment benefited the tech students in particular, but it has also made it possible for business students to practice marketing, design and advertising, while having an idea come to life," said Smith.

The Fab Lab is designed to let the kids design whatever they want. "Basically, if you can draw it, you can route it," Sommer explained. So the students are taught to create, design, program and route, and have their visions come to life. The Business Ownership & Marketing class at MHS works closely with the students from the Tech Class to design and create a finished product. The Business Ownership & Marketing class students are responsible for designing the product to hopefully be sold in their new school store. The students then bring their ideas to the Tech students who bring their concepts to life. "I first started to think of a product that I could sell at local events, like our musical events or our school store. I came up with a picture frame that has an adjustable picture frame in the center, where you can easily take the photo in and out of the heart shape (photo shown). And the cooler part? We came up with our ideas based upon stats that we took based on what people would be most inclined to purchase," said Tara, 17 year old student at MHS. Tara then brought her idea to Sareem Jabar, intern and student at MHS, who was able to bring her idea to life. The two worked together to make a design into an actual tangible product. "The business class pretty much feeds me the ideas. My job is to then put it on paper and make a tangible item. Once I am able to do that, I program it into the machine. Just like that, I am able to cut out all of the products for the shop. I am so impressed with how precise everything is. The text is sharp and the corners are crisp, and everything fits together precisely. It is perfect," says Jabar.

The students at MHS were excited to speak about their projects and new passions for CNC. Amazed at all the machines can do, the students bragged about being able to learn using such advanced equipment at a high school level. Most importantly, the students were able to explain and teach other students what they did, how they programmed it, and what tools they used to complete the project. The students' energy is contagious, making more and more students want to enroll in the tech classes offered at MHS. "We have always had good enrollment. But we are definitely getting more students coming in who were intimidated by the traditional machinery in the past. Once they see that they can pretty much rapid prototype anything that they can draw/design on the computer, they immediately want to take the class," says Sommer.

Overall, the Techno CNC router and plasma has transformed the entire tech program at MHS. The school has devoted its money and time to making the program more advanced, more efficient, and more technologically equipped with the best machinery in the industry. The Fab Lab has become a space of pure bliss for students to design, learn, create, imagine, craft, and route pretty much… anything they want. Sommer ends with saying,"CNC is absolutely a necessity for any high school, and we are so happy and proud to have invested in such quality equipment for our students to learn and prosper."