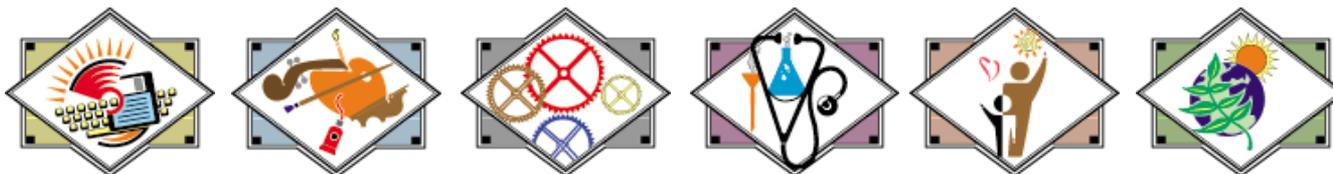




Chippewa Valley Schools

Career Technical Education



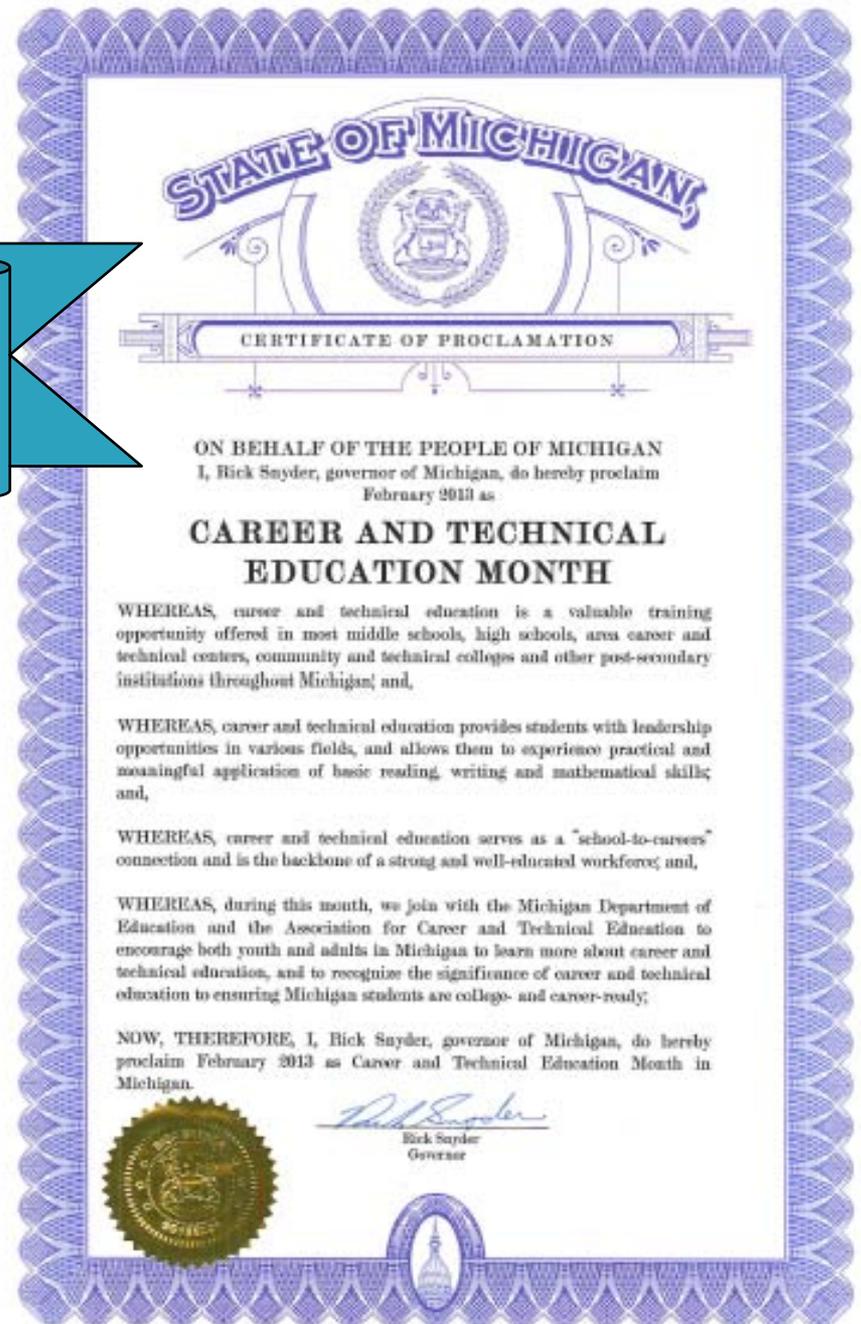
Board of Education Meeting - February 25, 2013



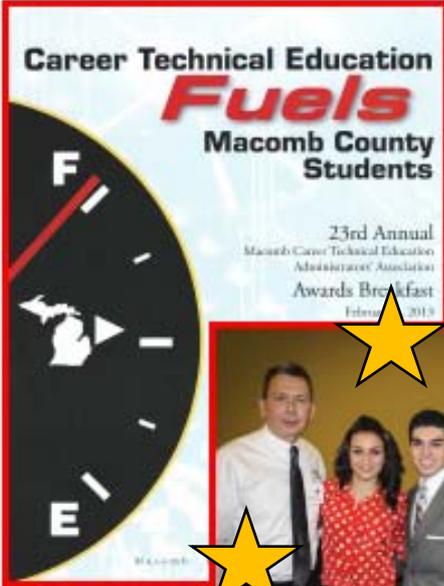
February is
National CTE Month!



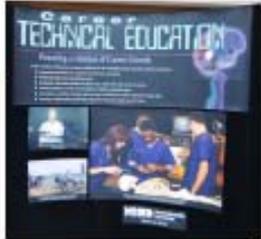
Learning that works
for Michigan



February is National CTE Month!



Educators, family and friends share in the celebration.



Chippewa Valley Schools 2013 MCTEAA Award Recipients Karl Kilmek, Sydney Jeney, Joseph Bommarito, accompanied by Dr. Jerry Davisszon and Superintendent Ron Roberts



Local legislators and dignitaries congratulate our award recipients.



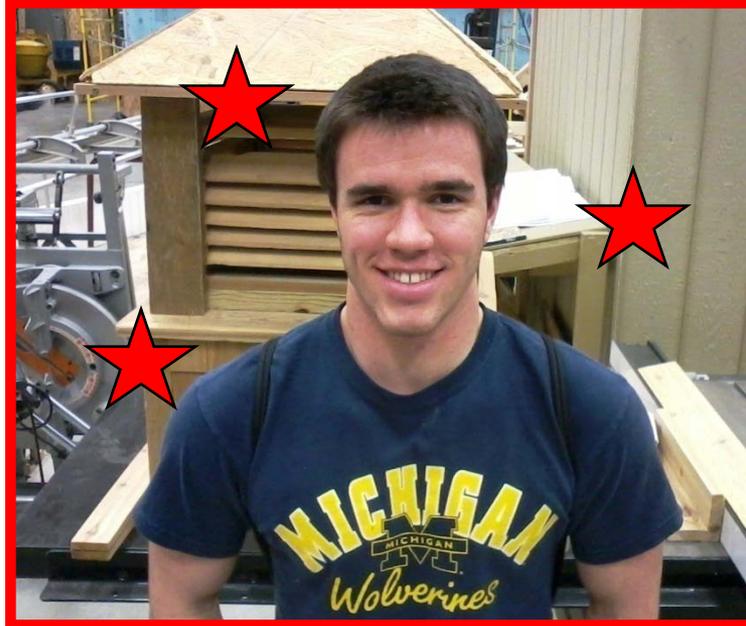
February 1st, 2013





**National
Association of
Home Builders
Student
Chapter**

**2013
International
Builders'
Show**



Jeff Rouse
**Outstanding
Student!**
Construction

And the winner of the CNC router is...

Joe Churches
Construction Trades
Dakota High School

Joe being congratulated by

John Martincic
Forest Scientific Corp

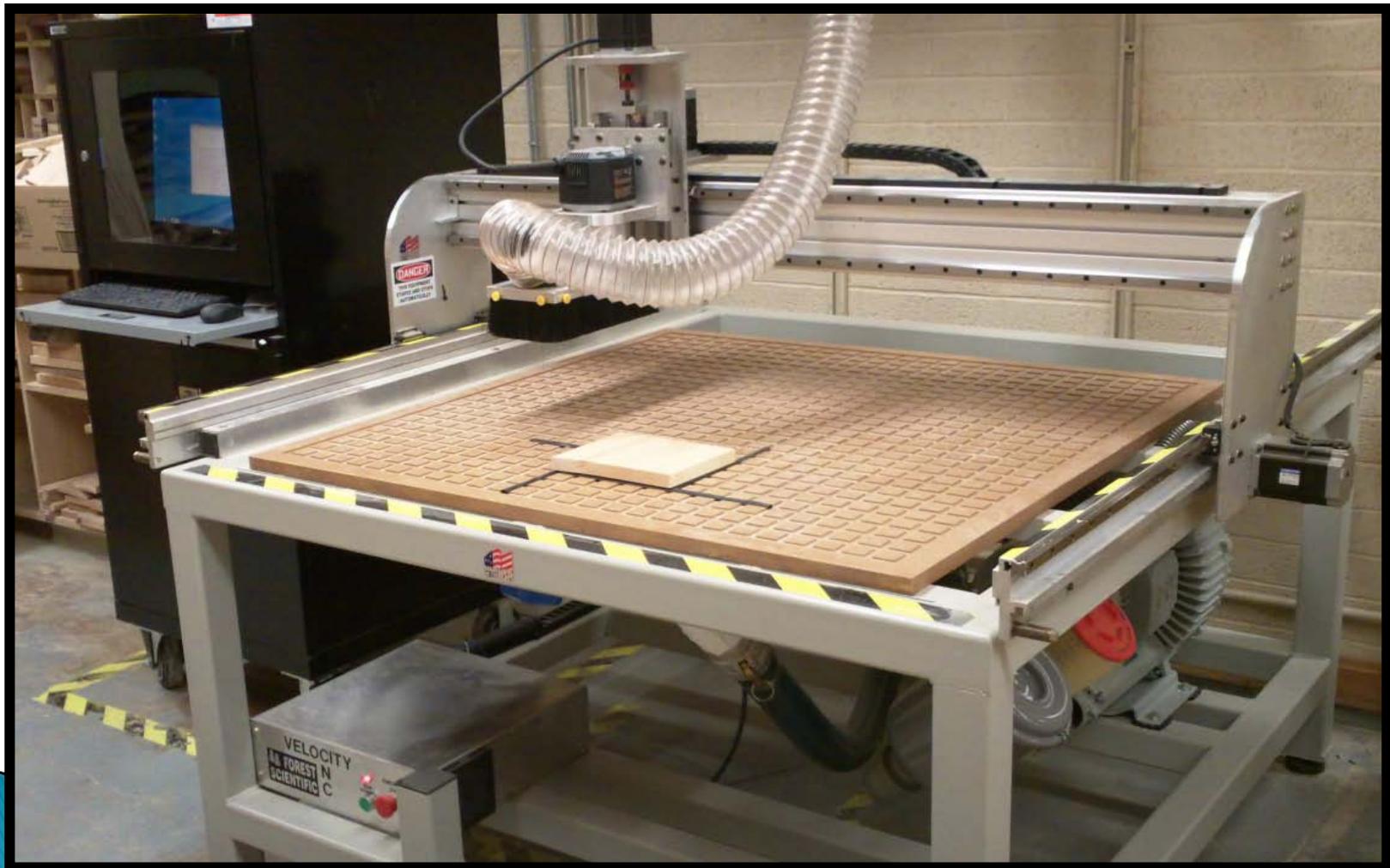
who donated the \$24,000 CNC router package that Joe won for his Construction Trades program at Dakota High School!



State MITES Convention
May 11, 2012



Thank you John Martincic
And Forest Scientific Corporation!



Woodworking & Cabinetmaking



Learning that works
for Michigan



Building our Future
Mr. Chad Campau

▶ Student Introduction

- Program Overview
- Careers
- Course structure
 - Teamwork
 - Independent projects
 - Various substrates
 - Various design sources
 - C.N.C. engineering software application

▶ Conclude

Careers of today and of the future...

Architectural Millworker
Bench Carpenter
Boat Builder
Cabinet Installation
Cabinet Maker
Cabinet Sales Representative
Carpenter
Casework Fabricator
CNC Operator
Counter Top Fabricator
Finish Carpenter
Forestry Product Engineer

Furniture Design
Furniture Repair
Hardwood Floor Installer
Interior Design
Industrial Machine Sales
Kitchen Design
Machine Operator
Product Designer
Staircase Fabricator
Wood Finisher
Woodworker

1st year students vote on the project they will build.
This group selected a small hall cabinet.



This group selected a Mission-style table.



1st year students focus on safety and proper use of machines while developing basic technical skills.



Fundamental to success...

Good communication skills and teamwork!



Teamwork creates a positive and supportive learning environment.



Students help each other with projects.



After the 1st year,
students can select
their own individual
projects.



Students work with many materials:

Carbon Fiber
Concrete
Metals
Veneers
Wood
Acrylics
Fiberglass
Plastics
Glass
Epoxy Resins
Solid Surface

This was made from solid surface material.

One familiar brand of this is called Corian.



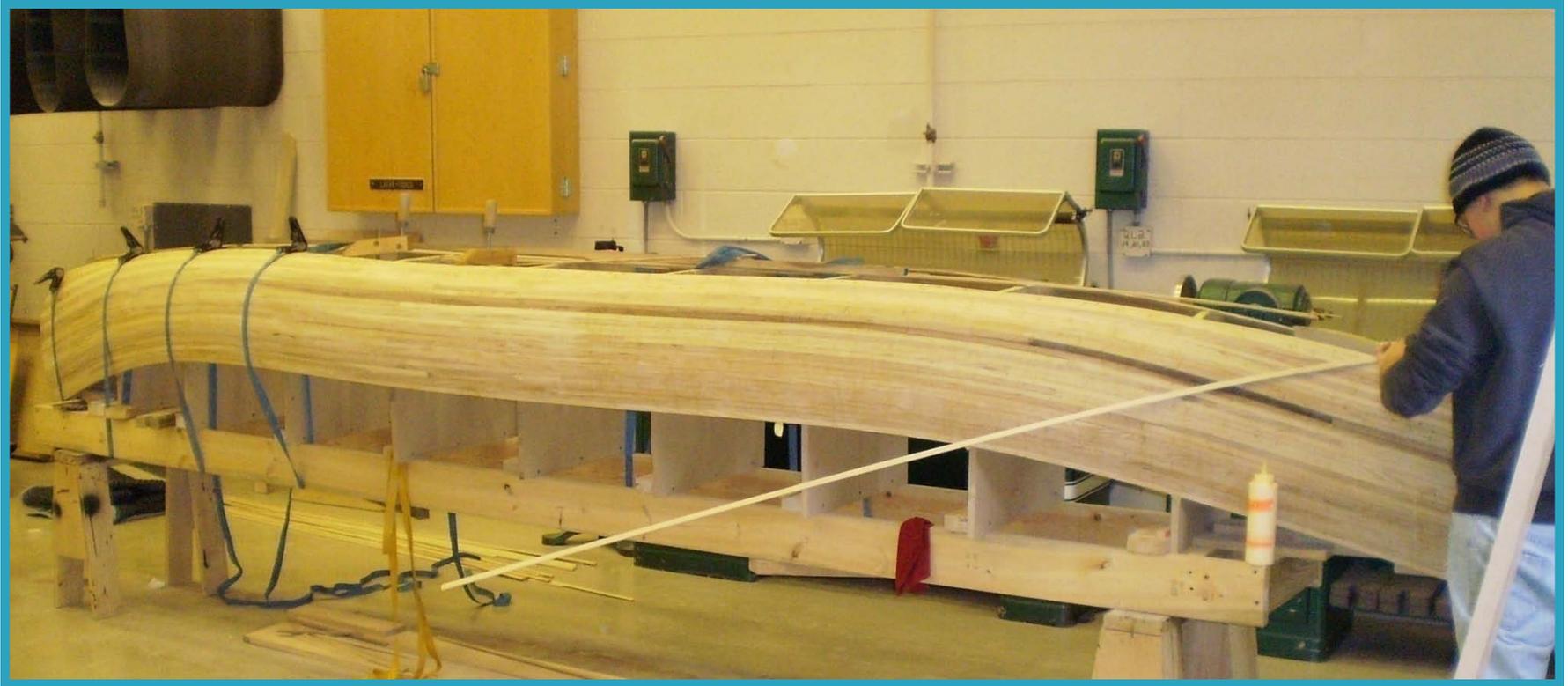
This boat began with wood...



Once the strips were added...



...and the hull was complete...



...fiberglass and epoxy were applied to protect the boat.



This student
used plastic
laminates.



Julie-ann used an epoxy inlay for her 1st year project table top:



Multiple materials can be used in one project:

This drum has metal parts embedded into the wood.



Corian and acrylic are both used here:



This may look like a simple desk, but Robert had to apply math skills to work out the angles in this original design:



An award-winning duck boat...



Some students have pursued furniture design at FSU & NMU



This project was inspired
by the movie

Beauty and the Beast

Ryan designed it for his
nephew.

The curvature proved
to be a difficult problem
to resolve and his
calculations had to
be precise.



An original design by Justin with a hidden drawer.

He utilized
a vacuum
press for
application
of the
veneer:



Structurally complex, calculating angles and...

...how the
top would be
supported
was challenging.



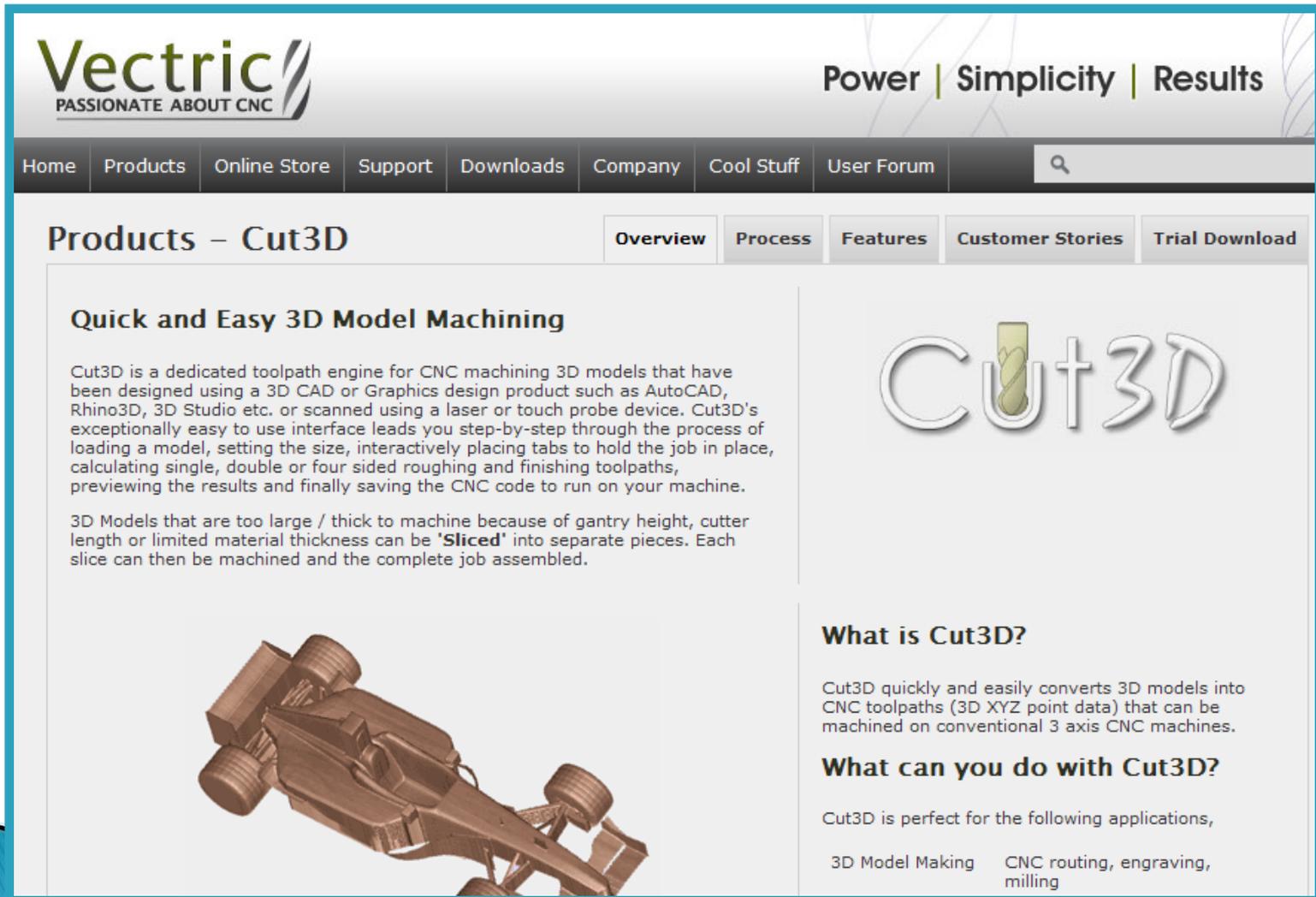
Chris obviously mastered the skill of creating a multiple-piece, veneer, compass rose:



“When the projects get complex, we find ourselves seeking guidance after school and on weekends...that’s how much we love this class.”



The state-of-the-art CNC router incorporates a variety of software and incorporates both design and programming skills.



The screenshot shows the Vectric website interface. At the top left is the Vectric logo with the tagline "PASSIONATE ABOUT CNC". To the right is the slogan "Power | Simplicity | Results". Below this is a navigation menu with links for Home, Products, Online Store, Support, Downloads, Company, Cool Stuff, and User Forum, along with a search icon. The main content area is titled "Products - Cut3D" and includes sub-tabs for Overview, Process, Features, Customer Stories, and Trial Download. The "Overview" tab is active, displaying the heading "Quick and Easy 3D Model Machining". The text describes Cut3D as a dedicated toolpath engine for CNC machining 3D models, highlighting its ease of use and capabilities for slicing large models. A 3D model of a race car chassis is shown in the bottom left. On the right side, there is a "What is Cut3D?" section with a brief description and a "What can you do with Cut3D?" section listing applications like 3D Model Making and CNC routing.

Vectric
PASSIONATE ABOUT CNC

Power | Simplicity | Results

Home Products Online Store Support Downloads Company Cool Stuff User Forum

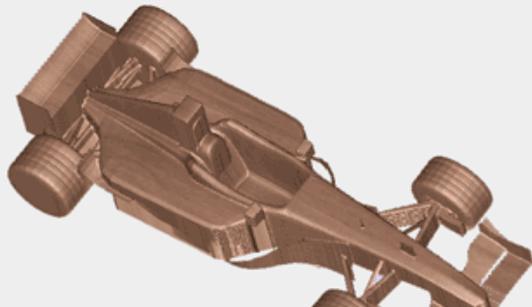
Products - Cut3D

Overview Process Features Customer Stories Trial Download

Quick and Easy 3D Model Machining

Cut3D is a dedicated toolpath engine for CNC machining 3D models that have been designed using a 3D CAD or Graphics design product such as AutoCAD, Rhino3D, 3D Studio etc. or scanned using a laser or touch probe device. Cut3D's exceptionally easy to use interface leads you step-by-step through the process of loading a model, setting the size, interactively placing tabs to hold the job in place, calculating single, double or four sided roughing and finishing toolpaths, previewing the results and finally saving the CNC code to run on your machine.

3D Models that are too large / thick to machine because of gantry height, cutter length or limited material thickness can be '**Sliced**' into separate pieces. Each slice can then be machined and the complete job assembled.



What is Cut3D?

Cut3D quickly and easily converts 3D models into CNC toolpaths (3D XYZ point data) that can be machined on conventional 3 axis CNC machines.

What can you do with Cut3D?

Cut3D is perfect for the following applications,

- 3D Model Making
- CNC routing, engraving, milling

Marketable Skills:

Andrew is working as a CNC operator in the aerospace industry!

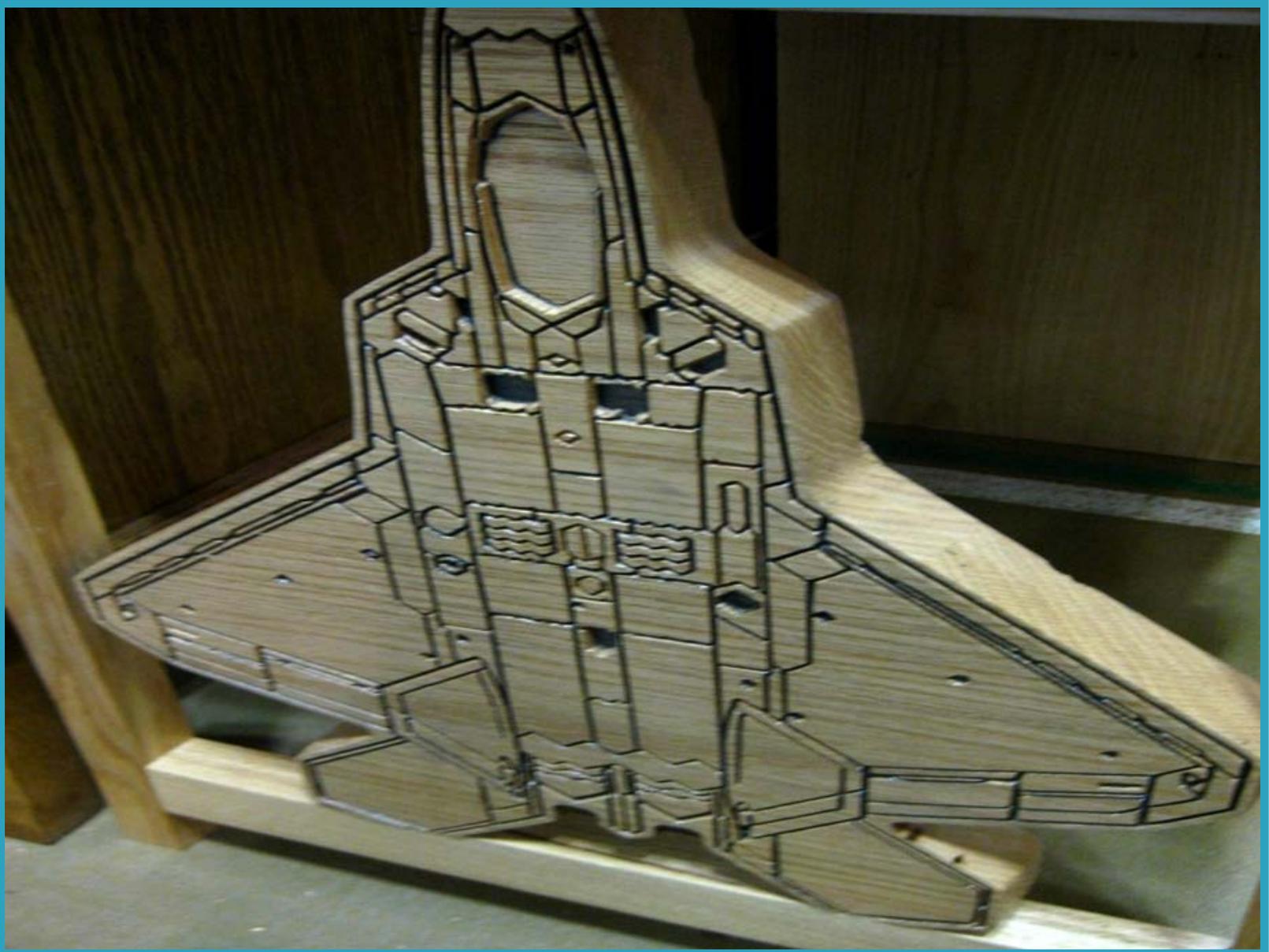
An opportunity he received by way of his experience with the CNC router.



The right side of Andrew's desk:



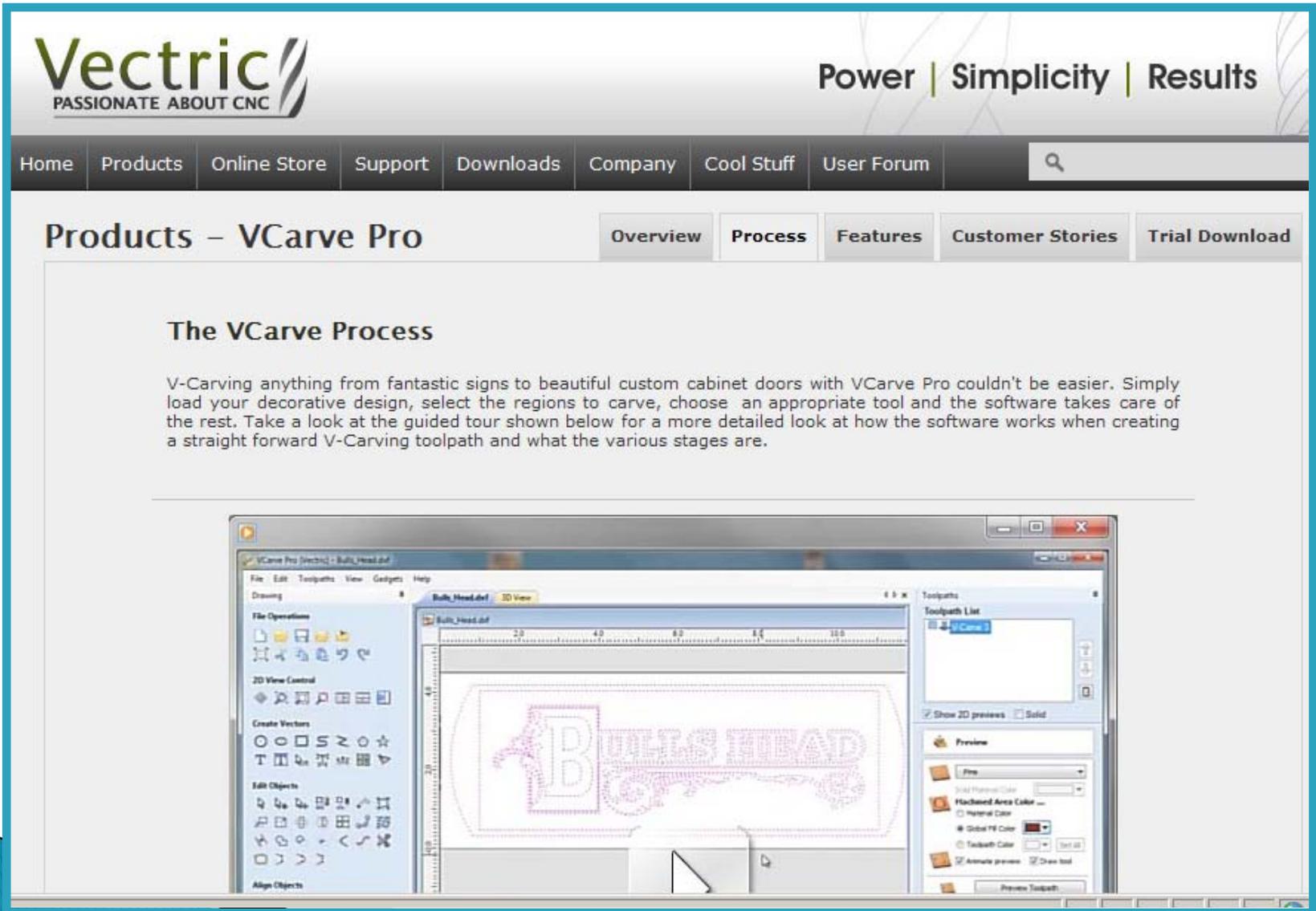
The left side :





Great front inlays

VCarve Pro is the first type of software students learn to use:



Vectric
PASSIONATE ABOUT CNC

Power | Simplicity | Results

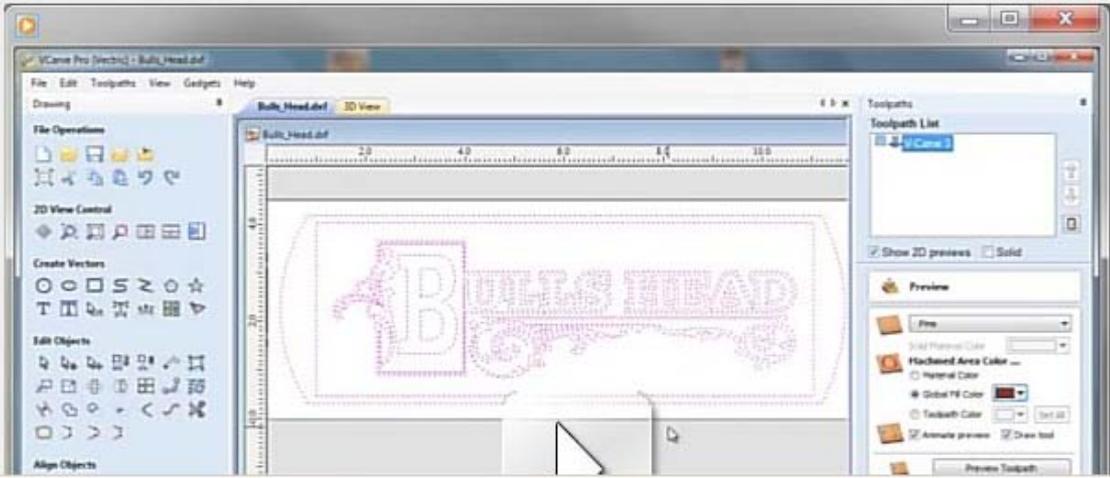
Home | Products | Online Store | Support | Downloads | Company | Cool Stuff | User Forum

Products – VCarve Pro

Overview | **Process** | Features | Customer Stories | Trial Download

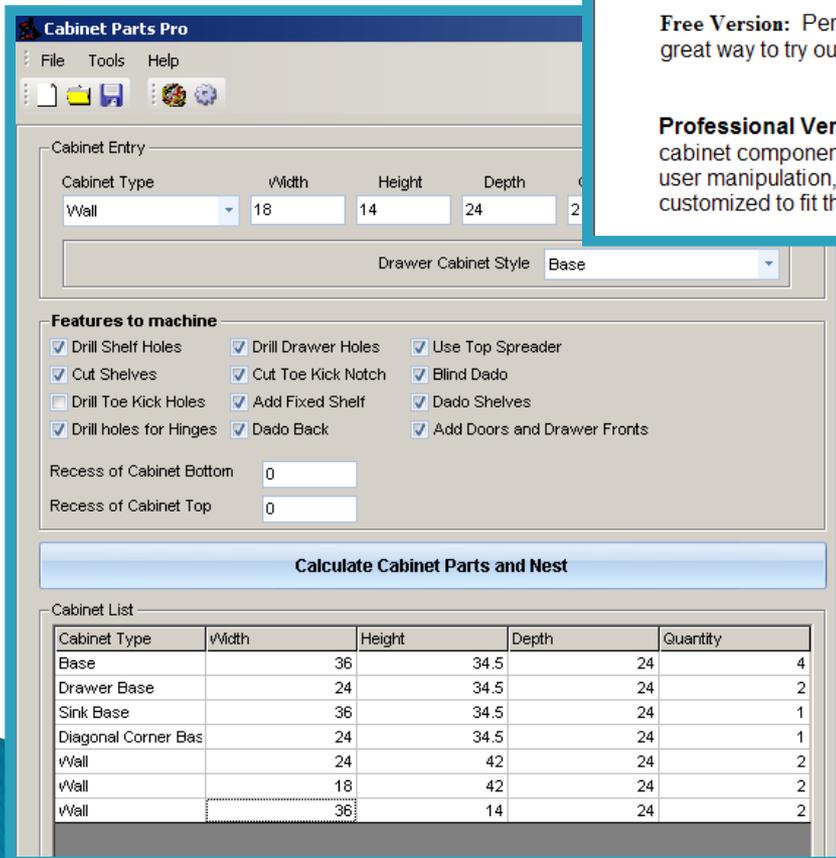
The VCarve Process

V-Carving anything from fantastic signs to beautiful custom cabinet doors with VCarve Pro couldn't be easier. Simply load your decorative design, select the regions to carve, choose an appropriate tool and the software takes care of the rest. Take a look at the guided tour shown below for a more detailed look at how the software works when creating a straight forward V-Carving toolpath and what the various stages are.



The screenshot shows the VCarve Pro software interface. The main window displays a 2D drawing of a sign that says "BULL'S HEAD" with a decorative border. The software interface includes a menu bar (File, Edit, Toolpaths, View, Gadgets, Help), a toolbar, and a "Toolpaths" panel on the right. The "Toolpaths" panel shows a "Toolpath List" with "V-Carve" selected, and a "Preview" section with various settings like "Solid Preview Color", "Hatched Area Color", "Global Fill Color", and "Toolpath Color".

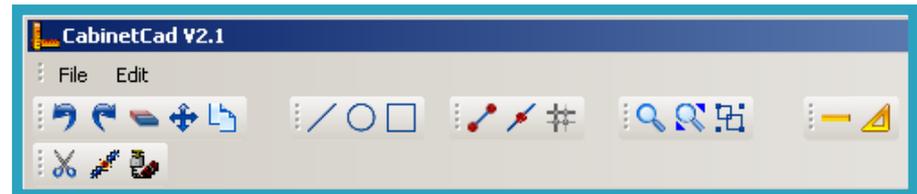
Cabinet Parts Pro is another software we use



Powerful CNC Software to automate and simplify cabinet making ... at a very reasonable price.

Free Version: Perfect for the individual who has a CNC and needs to make a few cabinets. Also a great way to try out the software before making a purchase.

Professional Version: Perfect for the serious cabinet maker. Powerful software that generates cabinet components for large jobs, including many customizable options. Efficient parts nesting with user manipulation, and creates a DXF file and the cutting code needed for your CNC. Created to be customized to fit the way you build cabinets in your shop



As well as

- Cut 3-D
- Autodesk Inventor and
- Photo VCarve Pro

This is Brad working on veneer layout for the 3-D models on Vectric.



A fabulous CNC project!

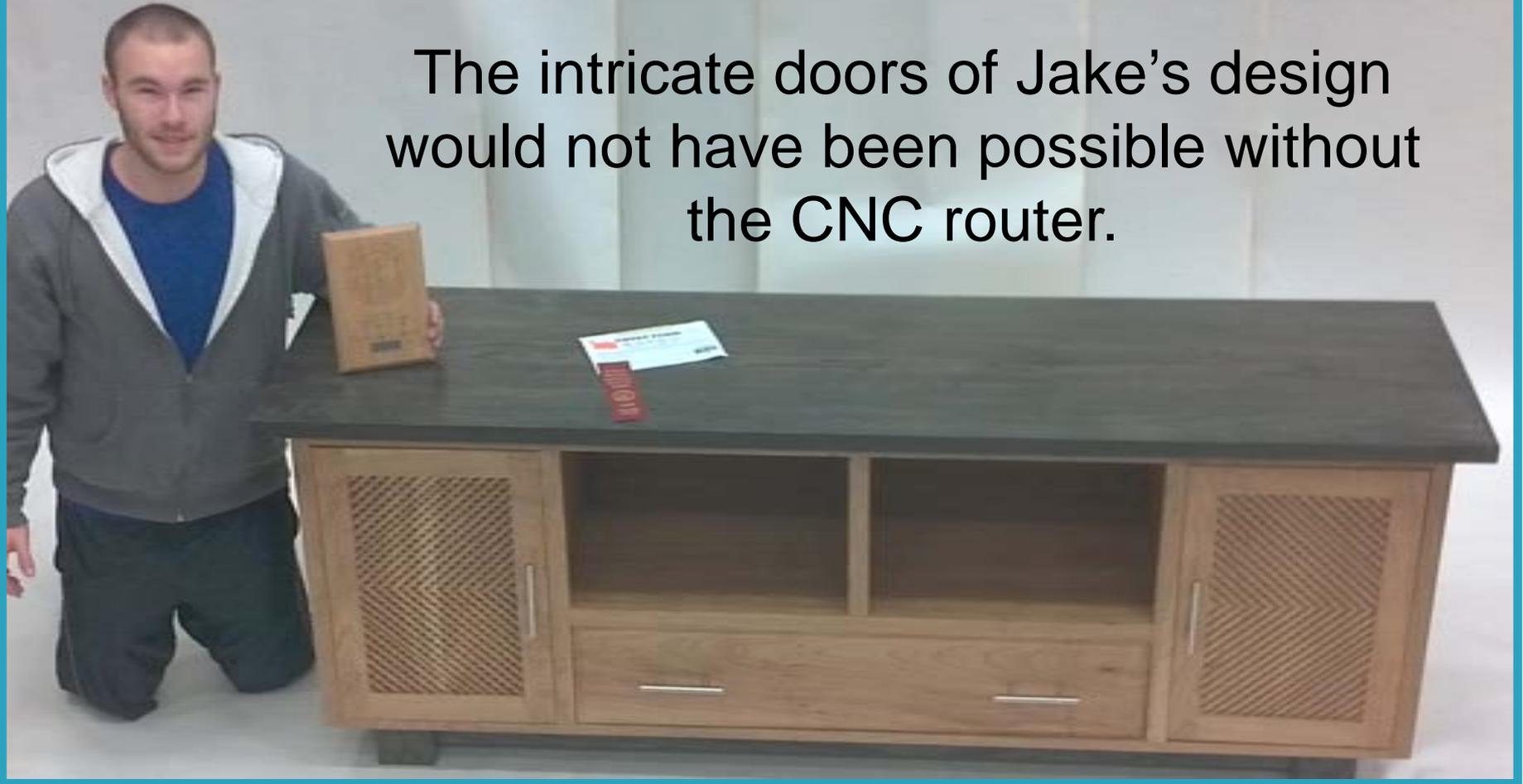




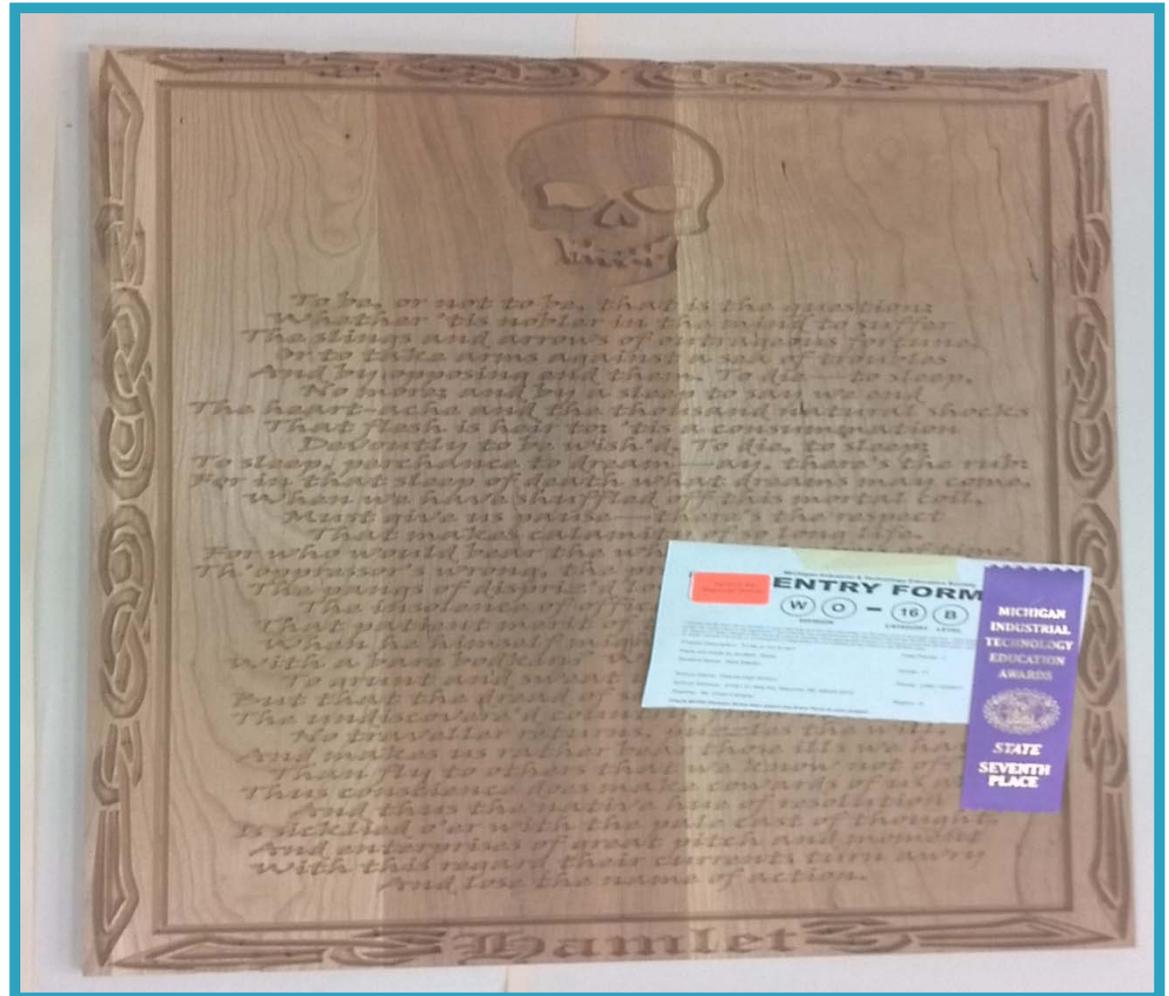
This is Guy using software to design his guitar project:



The intricate doors of Jake's design would not have been possible without the CNC router.



The entire speech from Hamlet comes to life in wood thanks to the CNC router and a skillful student:



Traditional methods are also used.





AWFS Freshwood Finalist 2011!

(Association of Woodworking & Furnishings Suppliers)

AWFS

Freshwood is a national student competition that includes writing a designer's statement in addition to the actual project.



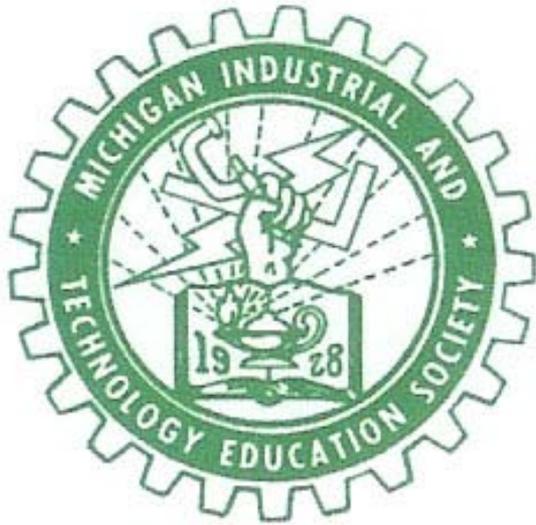
AWFS Freshwood Finalist 2009!

At the high school level, only 15 students are selected as finalists to compete nationally!



Truly a work of craftsmanship and beauty!





So many awards!

Mr. Campau maximizes the potential of every student regardless of the skill level they possess upon arrival.



M.I.T.E.S.
State
Convention
2010

And more awards
...year after year!



Thank you for supporting...



Woodworking & Cabinetmaking!