

NEWSLETTER January 2022

"The MakerBarn is a member-driven family-friendly makerspace that exists to provide a place for our members to envision, design, and realize creative projects. We are dedicated to building a creative maker community among our membership and the community at large."

2021, What a Year!

Snow and ice for Valentines Day, temperature in the 80's for Christmas!

But all that aside, we had a pretty good year at The MakerBarn. The Shop was moved from Extrodinary Education to our new location. We were able to have our 5th anniversary party in the new shop. The build-out of the shop was an expensive and complex project, however, with the help of all our volunteers, is was a great success.



The Shop got a Mortising Machine, a 12" Jointer, and a member donated a very nice Band Saw. Through the generous donations of members, we were able to build a new welding shop.

At The Lab we also had some additions. We set up a video editing suite, a new resin 3D printer with cleaning and curing stations and Dye Sublimation capability was added to our arsenal of crafting tools.



This last year was very good year for The MakerBarn, I certainly hope it was good for you too. I'm excited to see what 2022 will bring us.

If you have any ideas on how we can improve The MakerBarn, be sure to let someone on the Executive Committee know about it. We are always working to make the great greater.

Let's keep on make'n!

Thanks, George Carlson President, MakerBarn

Christmas 2021 at the Barn - a new tradition!

On Friday, December 10 about 30 members of the Barn gathered for what is hopefully a new annual tradition; our potluck Christmas Dinner! It turns out that MakerBarn makers are as good at making food as they are at many other things. Many thanks to all who cooked and attended!



Christmas 2021 at the Barn - a new tradition!



Dye Sublimation for Tumblers Class

Date: Sunday

Time: 3:00 PM at The Lab



MakerBarn member Kathy Barbieri will demo dye sublimation on tumblers. Bring a mug or a tumbler made for sublimation. Amazon has some and a company called "JoinUs" on Robinson Road has them. Kathy will supply other items needed which include; special printer paper, shrink wrap and heat tape. No need to buy these until you learn if you want to do this.



Collen Helz - made this cutting board at the Shop. She used the jointer, drum sander, and sawstop.



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Bob Chmielewski made this is a Model T car from maple, walnut and oak. Used a bandsaw and a lot of sanding, and glue. Wheels were made using a 2 1/8 " hole saw. This was a Christmas present for my grandson.





George Carlson made ten personalized mugs for Christmas Eve hot chocolate using dye sublimation

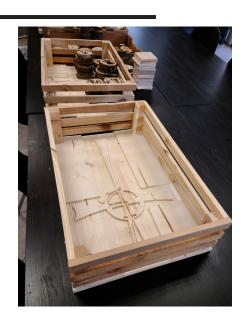
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David Long made two cutting boards this month. He used the saw stop, planer, jointer, CNC drum sander and lasers.



John Webb made these crates from scrap material left in the scrap bin at the Barn. Good reuse!







Iohn Webb has made no less than seven items this month! (1) Christmas Ornaments, (2) life size Nativity Scene with stable, (3) 6ft Light Switch for a Christmas Tree lighting ceremony (switch actually lights up when turned on), (4) 6ft Nutcracker Toy Soldiers, (5) several live edge cutting boards (one pictured is a black walnut cutting board without handles and (6) the one with handles is made from white oak), and (7) several pizza peels of different sizes and from different varieties of wood.







CAD/CAM GCode Maker Barn Software Explained

The purpose of this document is verify where to find and how to use appropriate software for each CAD/CAM machine at MakerBarn. NOTE: This paper is current as of the date listed above. Please be sure you are reading the most current version for the most up to date information

At MakerBarn we are fortunate to have a number of machines that are capable of using computer generated code to drive the manufacture of an object. This type of configuration (computer + machine) is relatively new and has often been called Computer Aided Design (CAD) for the computer software side and Computer Aided Manufacturing (CAM) for the hardware machine side. This combination is often abbreviated as simply CAD/CAM.

CAD/CAM software typically outputs a special set of instructions for each manufacturing machine it supports. These instructions are called "generated code" or "G-code" and they are of a specific type for each supported manufacturer's machine.

It is very important that you use a CAD software that generates the proper G-Code for the type and brand of machine you are using at MakerBarn!

There are three basic types of CAD/CAM available at MakerBarn: 1) Laser Cutting/Engraving, 2) Computer Numeric Control (CNC) and 3) 3D Printing.

Machine:	Software:	Special Price*	Contact
LASER	Lightburn	Yes	Greg Radliff
CNC	Vectric VCarve Pro	Yes	Jim Barron
3D PRINTER	Fusion 360/Cura/Simplify3D/Prusa	No	Jody Cochran

^{*}reduced price available for makerspaces like MakerBarn

SOFTWARE	USED BY	MakerSpace Pricing
LightBurn	LASER Thing One – The Lab LASER Thing Two – The Lab	LIGHTBURN is \$20 for MakerBarn users by using the special license code. \$30 per year for additional upgrades
VCarye*	CNC 4'x4' – The Shop CNC Carvey – The Lab CNC Mini for PCB – The Lab	VCARVE PRO Special Makerspace Client Edition is free by downloading the current version trial and then entering the special license code. Note that we keep a special Makerspace Master Edition at MakerBarn and only it can export code to CNC machines
F AUTODESK* FUSION 360*	SPEC #1 – The Lab SPEC #2 – The Lab	N/A
	PRUSSA – The Lab	
	TAZ – The Lab	
	Resin 3D – The Lab	

Meet The Area Managers!



WOODWORKING & CNC

Jim Barron has lots of experience with woodworking and CNC. He holds occasional CNC classes that demonstrate the Vectric VCarve Pro software we use. Jim can check you out on woodworking and CNC tools at the Barn. Contact him via SLACK.



LASER PRINTING

Greg Radliff is an artist and expert at using Laser Cutter and Engravers. Greg can show you the LightBurn software we use and can check you out for use of the Laser printers in the Lab. Contact him via SLACK



3D PRINTING

Jody Cochran is a graphic artist with deep experience in 3D printing and other graphics tools. Jody can show you slicer and other software used with the 3D printers. Contact him via SLACK.



<u>METALWORKING</u>

Bryan Manka is area manager for metalworking which includes the metal mill and the metal lathe at the Barn. He can check you out for use of either of these machines. Contact him via SLACK.



ELECTRONICS

Raul Garcia is area manager for electronics. More of a fixer than designer, but willing to help and learn together. See Raul for anything related to microcontrollers, electronic devices or other electronics related projects. Contact him via SLACK.



WELDING

Daniel Claybaugh is area manager for welding

For New Members

WELCOME to the wonderful world of making!! We know you'll come to love this place as much as we do. First and foremost, this place is about the people. We would like to encourage you to see yourself as more than just a member. We are a community. Because we don't have any employees, we rely heavily on our community to keep things running. So please join in, pitch in, and get involved. Ask lots of questions. We are a really friendly group and love to help one another. The MakerBarn is a fantastic community of makers and we are glad you are here!



Maker Barn: The Shop 28030 FM 2978, Suite 204 77354 Phone: 832-663-6377



MakerBarn: The Lab 28030 FM 2978 Suite 101 77354 Phone: 832-663-6377

MakerBarn Directors:

George Carlson, Director and President Jeanie James, Director Greg Radliff, Director

Executive Committee:

Kathy Barbieri - Procurement and Acquisitions
Jody Cochran - Secretary
Raul Garcia - Member at Large
Jim Barron - Membership
Matt Folsom - IT
Daniel Cielecy - Treasurer
Doug Green - Web Site
John Buckley - Newsletter Editor

Area Managers: (Guru or Custodian)

Woodworking - Jim Baron Lasers - Greg Radliff 3D Printing - Jody Cochran Metalworking - Bryan Manka Electronics - Raul Garcia Welding - Daniel Claybaugh

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