



NEWSLETTER

January 2021

“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.”

The New Year is upon us. I sure hope it's better than last year. With several Covid-19 vaccines already being distributed, it's certain that by mid-year everyone will be able to relax and go back to working together on projects. I'm looking forward to it.

For the last few months, the Executive Committee has been discussing a couple of issues. I'd be interested to get some response from the membership.



First, we need to appoint a new President for the Executive Committee. The President serves as the chairman for the Executive Committee. The Executive Committee acts as the day-to-day manager for The MakerBarn and the primary interface to the membership. Although having the same President for a long period of time simplifies operations, it is better to move the job around a bit so we don't find ourselves getting stale. Ultimately, the Board of Directors selects the President. The Board of Directors, Greg, Jeanie, and myself, are the individuals listed on the charter with the state of Texas. If you know of someone who would make a good President, or would be interested in the job yourself, contact one of the Executive Committee members and let them know. The pay is twice that of the Barn Manager's pay, = \$0.

Secondly, we have been talking about the possibility of moving The MakerBarn Shop to a new location. This is a difficult decision, there are many factors at work. Having 24/7 access to the Lab for the last 7 months has taught us the value of the open access. But, moving the shop would be costly and require quite a bit of labor building out the new facility. It took a year and more than \$30K to build the facility we have. The good side was that we purpose built the facility to fit our needs. We may not have that degree of freedom if we move. The limited access and the high cost of rent make taking the risk of a move attractive. Let's discuss it a bit, I would be interested to see how the membership felt, and if they would be willing to donate their time and skills to get a new place going.

George Carlson
President, MakerBarn

MADE AT MAKERBARN!

Colleen Helz made a Texas flag at the lab and the shop.



Robert Lee made a special jig at the Barn to enable glue-up of cutting boards.



MADE AT MAKERBARN!



Elizabeth Jones made this 18" x27" x 2" end grain cutting board at the Barn. She made it for her cousin, who is a US Navy seal. It's made of maple, mahogany, and walnut woods, and many hours of literal blood, sweat, and tears went into this final project!



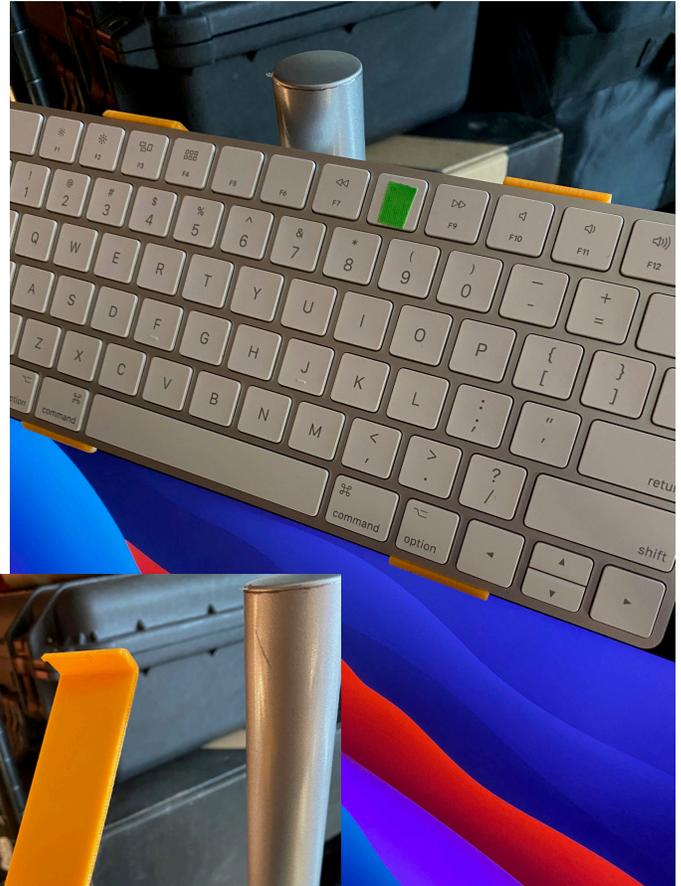
MADE AT MAKERBARN!

Fred Morales designed a couple of small items to make working with my Wacom Cintiq easier; printed on the Prusa at the Lab.

First was a pair mini keyboard holder clips to keep my keyboard in an optimal position.

Second was a dual stylus holder to keep my tools at close reach.

Hopefully both of these items will make my workspace even more user-friendly!



MADE AT MAKERBARN!

Ricky Kliensmith made this artwork with VCrave Pro software and CNC Machine at the Barn.



Collen Helz made these pet feeding bowls at the barn for her dogs.



Star Party at Lab, December 21

Sometimes makers use different tools to make things happen. For sky watchers, December 21st was very special day known as “The Great Cojunction”. The Earth, Jupiter, and Saturn lined up in such a way that it appeared that Saturn was remarkably close to Jupiter. They were still 400 million miles apart, but seeing both at the same time through the eyepiece was still remarkable.

At the Lab we setup a small refractor telescope to view the event. Several members came by to view. The sky cleared off just in time. We were able to see these two large planets as they appeared close together in the sky. Ignoring all Covid protocol, the planets were separated by 1/10th of a degree. Hold a dime out at arms length to get the proper viewing perspective. We were able to see Jupiter with its colored bands and 4 moons were visible. With Saturn the rings were clearly visible.

David Long got a good picture through the eyepiece using his cell phone.



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	Vetric 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
 VCarve PRO	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
 AUTODESK® FUSION 360™	SPEC #1 – The Lab SPEC #2 – The Lab PRUSSA – The Lab TAZ – The Lab Resin 3D – The Lab	N/A

REMEMBER - Five COVID Guidelines for the MakerBarn:

Test again BEFORE you return: If you or someone living with you should test positive for the virus, please inform us and do not plan to return to The Lab or The Shop until you have a negative test result.

Masks: Everyone must wear a mask before entering the Barn and for the duration of your time at the Barn. Please bring your own.

Two's a crowd: We want to practice social distancing while also allowing for making. So let's keep it to one member using each area at a time, i.e. one member in the laser room, one member in the sanding room, one member using the sewing, one doing wood working, etc.

Use Sign-up Genius : Please do not come to the barn without reserving time to use equipment. It's easy now to go to the website at <http://themakerbarn.org> and click on the new Sign-Up Genius icon. There you may reserve equipment in one hour blocks. You can always call 832-663-6390 & the manager on duty will confirm your time as shown on SignUp. We are all going to need to be respectful and considerate of one another during this time.

Members with guests: Guests and children are asked to stay at home until we have reliable information that shows the Covid-19 danger is considerably reduced. We are not there yet. Safety and health of our members is top priority.



Are you a Slacker? No, we don't mean are you lazy! We mean do you have an account on the SLACK App and have you downloaded it to your phone?

Nearly all of MakerBarn's internal day-to-day communication is conducted on SLACK within the fifteen channels that have been created for everything from Equipment Maintenance to CNC training. If you are a MakerBarn member and are not currently using SLACK, please write to info@themakerbarn.org and request that you be added to the app & then follow the instructions to you receive to download the app and begin using the channels for the most up-to-date news at the Barn and the Lab!

Meet The Area Managers!

	<p><u>WOODWORKING & CNC</u></p> <p>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.</p>
	<p><u>LASER PRINTING</u></p> <p>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</p>
	<p><u>3D PRINTING</u></p> <p>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.</p>
	<p><u>METALWORKING</u></p> <p>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.</p>
	<p><u>ELECTRONICS</u></p> <p>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.</p>
<p>No Area Mgr Yet</p>	<p><u>WELDING</u></p> <p>We have no one assigned to area manager in this area at this time</p>

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
9522 Carraway Ln
Phone: 832-663-6390



MakerBarn: The Lab
28030 FM2978 Suite 101
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
John Buckley - Newsletter Editor

Area Managers: (Guru or Custodian)

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

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