



NEWSLETTER

March 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."

February was a memorable month. Like a bad dream. To look on the brighter side, many of us learned much more about primitive life and plumbing than we ever thought we would. Anyone got a ½" copper elbow?

March gives us much to look forward to. One thing to look forward to is the "Ask the Expert" Zoom session on the evening of March 18th. Information on the link and password for Zoom below.

We have several new members which is always nice to see. If you see anyone you don't recognize at the Lab or Shop, introduce yourself and say "Hi."

As I write this the water at the Shop is still down. Extraordinary Education had a real tough time with the freeze. Apparently quite a bit of damage happened on Campus, so please be patient. The Lab did not have any damage, and as far as we know, the Shop came through unscathed as well.

So have a good March, plant some stuff, make some stuff. Don't forget the Q&A Zoom session on March 18th.



George Carlson is inviting you to a scheduled Zoom meeting.

Topic: MakerBarn Q&A

Time: Mar 18, 2021 07:30 PM Central Time

Join Zoom Meeting

<https://us02web.zoom.us/j/2817038279?pwd=aTlWaUc1Mk5UU0FCRXoyR25oakIxUT09>

Meeting ID: 281 703 8279

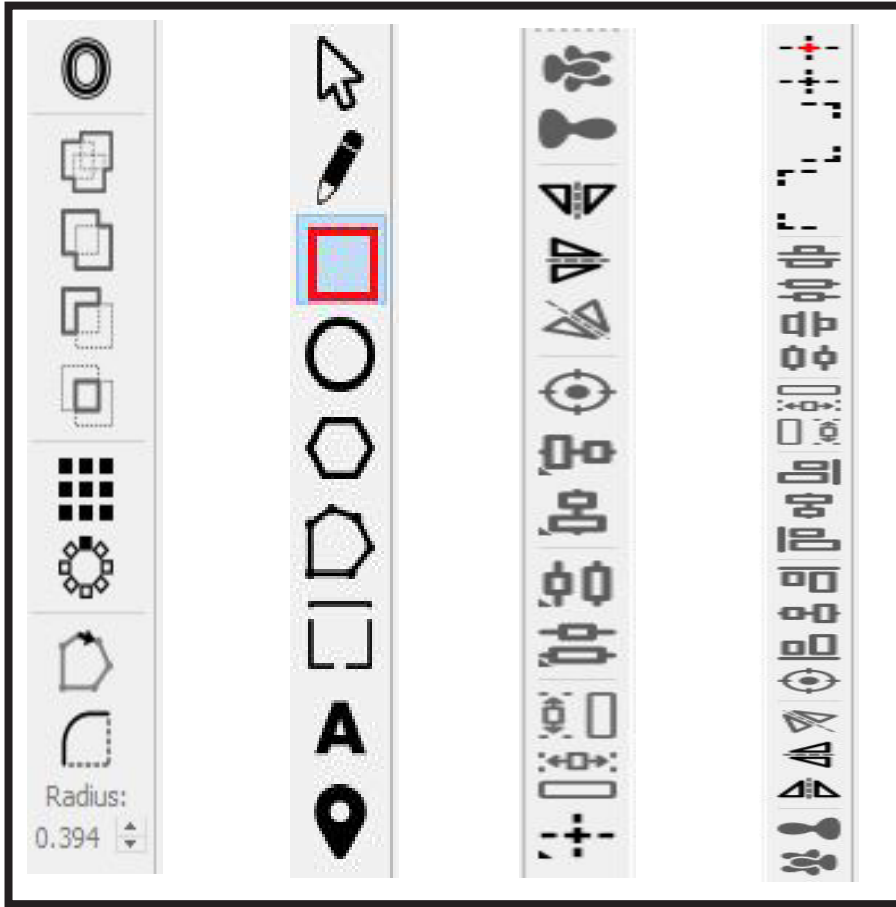
Passcode: Maker

Thanks,

George

Learn to Make via ZOOM

The COVID virus has made in-person learning difficult, but MakerBarn members are determined to see our training activity continue! A series of Zoom training sessions has begun and we are learning to enhance the zoom sessions with multiple cameras and microphones to make these learning sessions (almost!) as good as training in person.



Do you recognize all these icons from the LightBurn software? Greg Radliff probably does! That's why he is teaching LightBurn via Zoom on Monday March 1 at 7:30 PM

We have two MakerBarn Zoom sessions set for March:

- Monday, March 1 7:30 PM - **LightBurn Laser Software Training**
- Thursday, March 18 7:30 PM - **"Ask the Expert"**

Watch your email for join instructions.

MADE AT MAKERBARN!

Matt Folsom made a 3D printed pen/pencil holder, EMS Star of Life shape morphed to a round base. Designed in Fusion360, printed with PETG on my Ender 3



Ed Franini and his daughter Karla have been making phone stands that are used as donation incentives. We contribute material and labor. The Maker Barn equipment is key to the production of these items. To date, we have raised over \$2000 for the Houston chapter of the National Multiple Sclerosis Society.

All made possible by the Maker Barn. This fundraiser is an ongoing project so let us know if you would like to participate.

MADE AT MAKERBARN!

Colleen Heltz made a Texas cheeseboard using light burn, laser engraver, jointer, drum sander and sawstop at the Shop.



MADE AT MAKERBARN!

Devon Buffington is making a small paddle board wall mount (48") for a friend. It has an outline of Galveston island and will include epoxy inlays. It took about 4.5 hrs to cut this.



MADE AT MAKERBARN!



Danielle Roberts made these signs for Valentines Day. She cut the letters in the laser machine at the Lab.

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
 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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