

# NEWSLETTER May 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."

## Makers Making a Makerspace (again!)

We are now involved in the largest project since the construction of the makerspace in the barn.

About a year ago we moved the lasers and all the equipment on the second floor of the barn to a new location we call The Lab. This has worked out very well for The MakerBarn. The new Lab is a much better environment and gives us 24/7 access. Now we are doing a similar thing with the shop.

Moving the shop is much more complicated than the lab. We are currently installing electrical, dust collection, and compressed air services. This is all being done by volunteers. Without the labor provided by our membership we could never have been able to afford such a project. The shop is carefully designed with equipment and facilities that would be the envy of many commercial shops. The barn will cease operation on May 19th for the start of the move. We will reopen on June 1st at the new location. Although professional movers will be moving the Bridgeport milling machine and the big CNC router, all the remaining machines and other stuff will be moved by volunteers. So, watch Slack and emails for more information on the move.



Although the welding area could be located inside the main shop, we feel that it would be much better if the welding area had its own well-

ventilated area outside of the main shop. The property owner has given us permission to build a 10x30 foot steel structure on the backside of the shop. This will be a totally steel structure for safe efficient welding and metal casting. To finance this endeavor, we are looking for donations from the members. Even if you never plan to do any welding, remember that those who do enjoy welding also support the Lab, woodworking and machine shops.

Thanks to the many members who made this move possible.

A sidenote: June 4th will be the fifth anniversary of The MakerBarn! We are planning to have an anniversary celebration at the new Lab and Shop. Planning is just getting underway, if you would like to get involved, contact Kathy Barbieri through Slack or email.

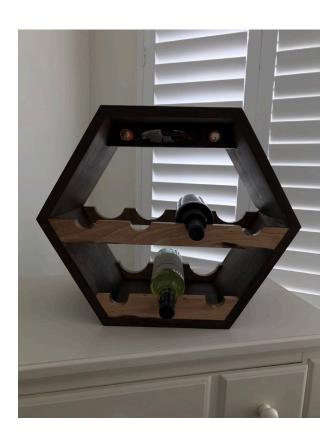
George Carlson President, MakerBarn

# DOUBLE YOUR IMPACT! 7-DAY CHALLENGE!

A MakerBarn family has offered to weld an extra dollar onto any donation you make between NOW and May 7th in our "Let's Build A Welding Shop!" campaign until we reach our \$10,000 goal!

PLUS the largest donor in this 7-Day Challenge will receive a custom made wine rack made and generously donated by Bob Woz, another MakerBarn member!

Let this create a spark of joy in you for helping us help you have a future welding experience.





#### **REMEMBER!**

MakerBarn will be closed to all users beginning Wednesday May 19, 2021. We anticipate reopening at the new location on June 1st.

No.	Sun	Mon	Tue	y 20 Wed	Thu	Fri	Sat
17							1
18	2	3	4	5	6	7	8
19	9	10	11	12	13	14	15
20	16	17	18	19	20	21	<b>X</b> 2
21	23	24	26	26	27	28	X
22	30	31					

ALSO, The storage container may or may not be moved to the new location. In any case, the container must be emptied before it can be moved. Remove *all* personal items from the container and the barn by May 19th. The move is a complex project, please don't make it even more difficult by forcing others to deal with your personal items. We intend to have a storage container at the new facility, but it may be awhile before we can have it installed.

## Updated mask wearing requirement at the Barn and at the Lab:

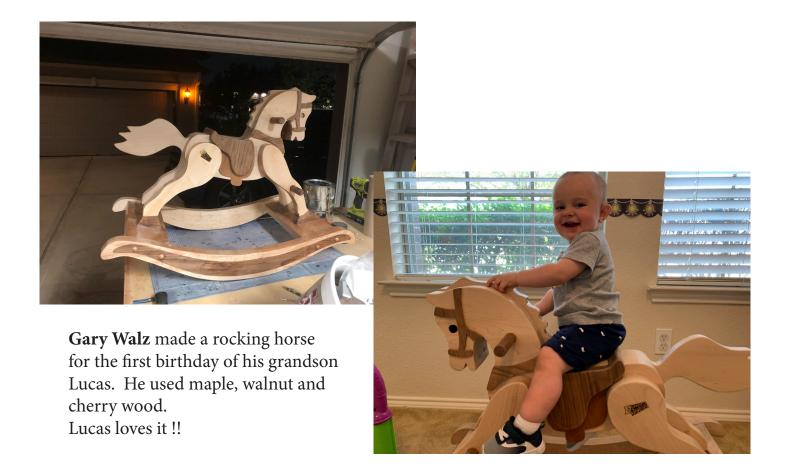
Members, we have updated our mask wearing requirement at the Barn and at the Lab

- As states are administering the COVID vaccine in greater numbers each week and our state governer has relaxed mask mandates, we have revised our rules too.
- Masks will only be required when you find yourself working in close proximity to another member.
- Maintain a 6' social distance and masks will not be required.
- If you feel more comfortable wearing a mask, then you should continue to do so

## MADE AT MAKERBARN!



Doug Green made this great set of cubbies for his wife who is a teacher. She uses it to organize copies and have students submit work. This was his first time to use dados on a project.

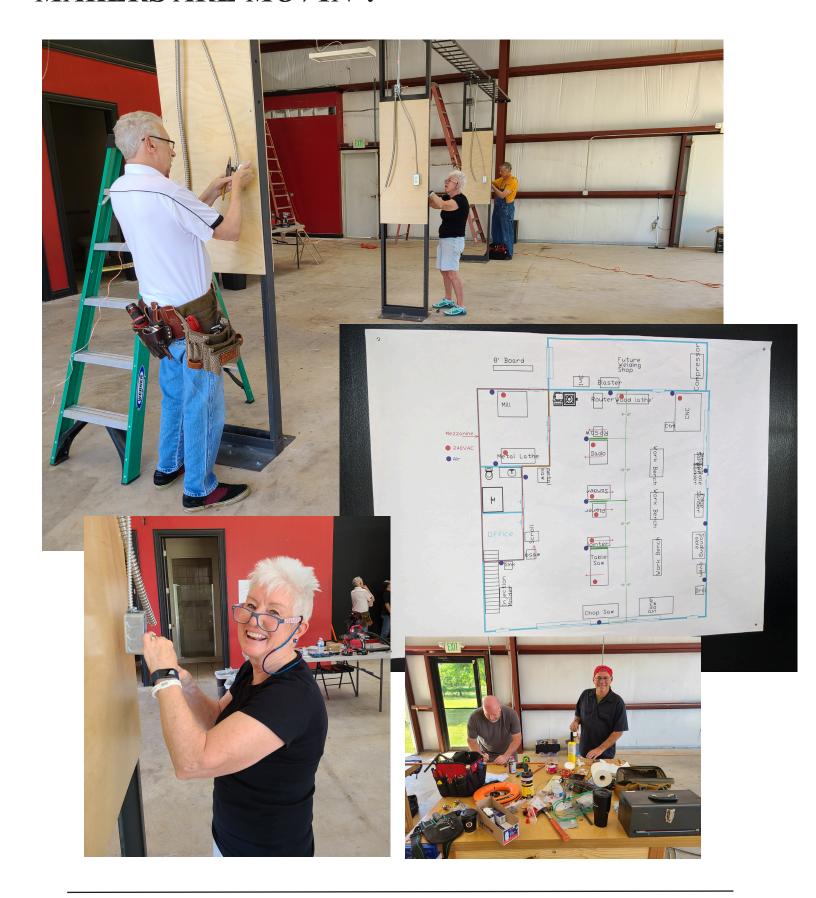


## MADE AT MAKERBARN!



Robert Wozniewicz has created a chess board with chess piece storage built in. The storage cabinet is solid cherry and the playing surface is Birdseye maple and an exotic called katolox. The chess pieces were purchased. Beautiful!

## MAKERS ARE MOVIN'!



### **MAKERS ARE MOVIN'!**









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!

## **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

<sup>\*</sup>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.



#### METALWORKING

**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

We have no one assigned to area manager in this area at this time

#### 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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