



NEWSLETTER

April 2024

"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."

Springtime is Here!

We actually get remarks on how "clean" our Shop is from visitors and other members. It happens more frequently than we would expect and it's always a bit surprising and enjoyable to hear. When you care about a place, you take care of it. That's what's going on here at The MakerBarn through efforts by members like you and, in large part, due to the efforts of our volunteer Shop Managers.

Once a year we like to do a deep clean in the Shop and the Lab to clear out the cobwebs. That day will be **Saturday, April 20th from 8:00 AM to Noon**. Both the Shop and the Lab will not be open for use during that time while we get down to the dirty business of cleaning.

It'll be a BYOB party! Bring your own Broom and Bucket. Look for a SignUpGenius coming soon with all the details.

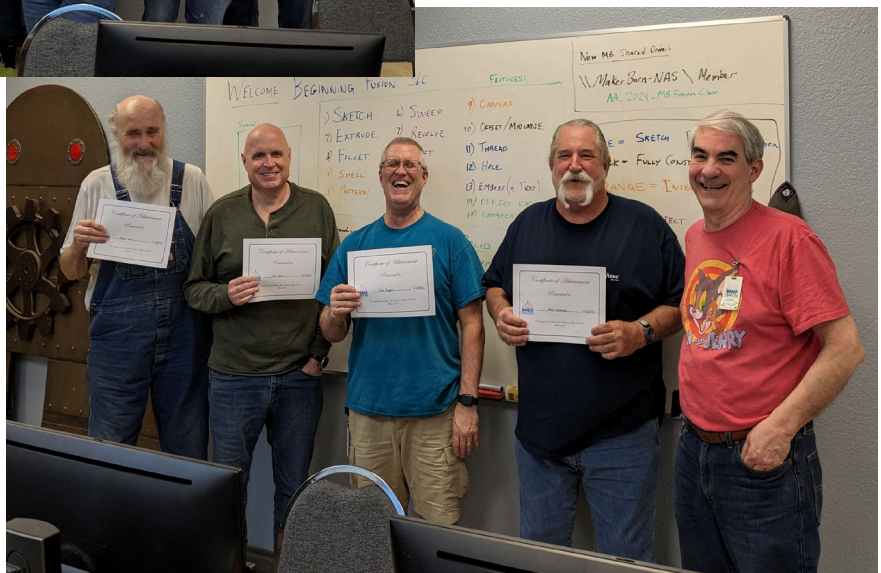
Kathy Barbieri
President, MakerBarn



Congratulations New Fusion Users!

A big congratulations to the members of MakerBarn who recently completed 10 weeks of training on Fusion 360 3d design software! These members were guided through nine projects utilizing nineteen features of the Fusion software by their teachers John Buckley and David Long. They are ready to design their own “stl” files for use with the 3d Bambu printers at MakerBarn.

Plans are underway to create a Fusion Special Interest Group (SIG)



Ceramics at The Barn

Interested in getting involved in ceramics? Don't miss the **General Ceramics Orientation** on April 2nd at 7:00 PM in the lab! This is the required orientation for ceramics and only offered once a quarter.

On April 16th our Ceramics SIG will focus on **Beginner Wheel Throwing**. This will include basics of throwing on the wheel, as well as specific protocol for using the Maker Barn wheels.

Register for both classes on The MakerBarn website under Events and Classes. If you are interested in participating in the Ceramics Program at The MakerBarn, please complete the interest form at

<https://forms.gle/uwCXZwiWCpKso2tX7>.



Are you Manager Material?

The MakerBarn runs on volunteers. If you have been an active member for two months or more, we would like you to consider becoming a Shop MakerBarn Manager.

MakerBarn Managers work 3-4 hour shifts during which they supervise the general operation of the Shop keeping a close eye on safety and noting any maintenance issues that arise. They also devote a fair amount of time to general cleaning of the shop floor and emptying the dust collection and trash systems. They give prospective members tours and update MACS access cards as needed for members.

Oh, and they enjoy 24/7 access to the Shop!

If the Shop manager role sounds interesting to you, contact Jim Barron via Slack. Thanks!

Laser SIG



Our area manager of Laser Printing, Greg Radliff will host a Laser SIG (Special Interest Group) to begin meeting at the Lab **on the 4th Thursday of the month.**

Anyone interested in talking about and sharing tips and tricks on laser cutters is welcome. Bring your projects for show and tell.

The next gathering will be April 25 at 7:00pm until the discussions end.



WELDING WONDERS



If you are interested in TIG or MIG welding, The MakerBarn has you covered.

We have both the **EverLast PowerTIG 250EX** and **Millermatic 251** welding units set up and ready to go. In addition, we have an oxyacetylene torch for your heating and brazing needs. To facilitate cutting we have 3 metal cutting saws (horizontal band saw, chop saw, and roll-in band saw), a handheld plasma cutter, and CNC plasma cutter.

As a reminder the welding area is under control of the reservation system, so don't forget to check the reservation calendar before using the area and remember to reserve it in advance if you can.

I am happy to report that the hands-on welding class backlog is finally gone. Over the last year 32 students have participated in the welding classes. Each student received one-on-one training, 2 hours a week for up to 6 weeks. These were individualized classes, so whether you are having a good day or not, you still had fun learning.

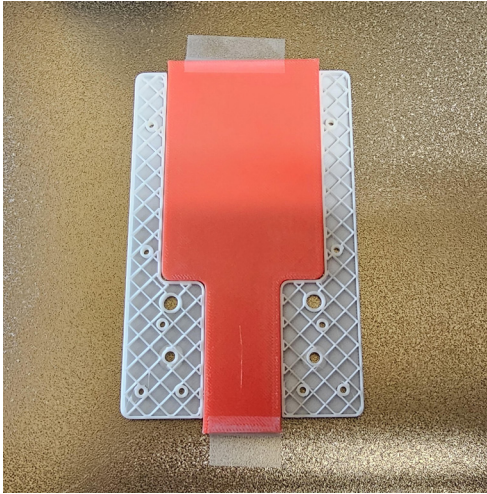
If you think you were on the original welding lesson backlog list and have not participated in the lessons or have not been contacted about participating, please direct message Joe Foster via Slack. In addition, there still may be time to offer a few lessons to new students before the summer heat arrives, so if you are interested in participating in welding lessons (same format as above), please direct message Joe Foster via Slack.



The cost of the lessons (including materials) for new TIG students will be \$60 (donated to The MakeBarn) and for MIG students \$25 (donated to The MakerBarn).

3d Printing the MACS Front Plates

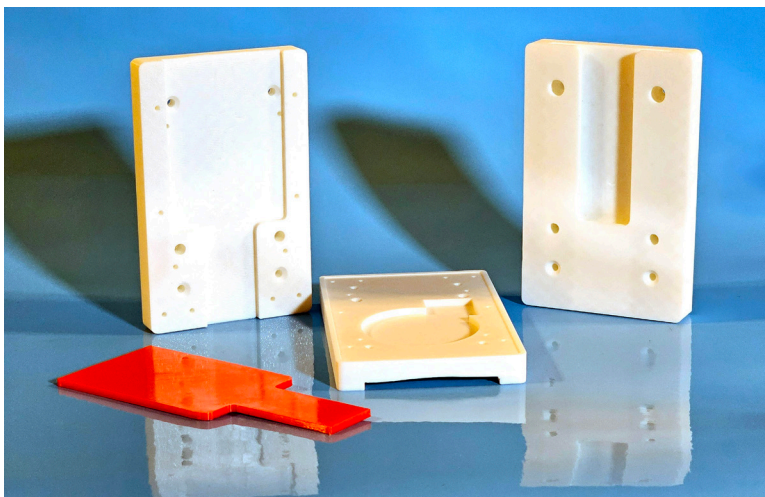
Recently I was making five more MACS readers so we would have some spares. I found I was out of the white Corian I used for making the front plates. Would it be possible to 3D print front plates that would look as nice as the Corian ones? Since the original plates had to be machined with recesses front and back, the challenge would be to print the plates so both sides came out clean and accurate. The back side is quite complex due to the recesses, the front side would have to be the side using support. The problem was that the large recess on the front was over two inches wide and three inches long. This would have required a substantial amount of support. Slicer generated supports would be hard to remove and leave a terrible surface.



The answer was to design a “plug” that could be put into place in the part, just before the back of the recesses was printed.

The bridge caused by printing over the recess would be printed over the plug. The plug was printed using PET-G, which has a higher melting point than PLA. The PLA does not stick well to the PET-G, so the plug should be easy to remove.

Success. The job was setup such that the Bambu printer would pause just before it started to cover the recess. When the printer paused, I inserted the plug. The plug was made a little longer than necessary to make it easy to remove. A small amount of Scotch tape was used to keep it from slipping out of place. When the print was complete, the plug was removed, and the print came out great.



Tour de force. So, would it be possible to print the front plate as one piece, so the smoked acrylic cover was not needed? This would mean that the plug would be completely cased in plastic except for the top and bottom. It worked! It was being held tightly by the surrounding plastic, but it slid out without much difficulty.

I think I will stick with the two-piece design. The contrasting smoked acrylic with the filled lettering gives the piece a professional look.

Itching to be Stitching!



We installed our new **Gammill longarm quilting machine** recently. It's working beautifully. What do you do with a longarm? You make quilts!

Recently, Member Cynthia Grimmer, our Longarm of the Law, hosted two demo sessions. She explained basic use and discussed the materials needed, she answered questions, and she instructed a few members during a hands-on experience. Using the easy-glide machine is both thrilling and scary at the same time!

Cynthia will be the gatekeeper in charge of training anyone interested in using the machine. It is MACS enabled, so proper training will be required to use the machine. There are very specific things you'll need to bring to training including a practice piece. The most important thing is to have your real quilt nearly finished (2 weeks from completion). Plan on an hour session. Reach out to Cynthia on Slack for details and join the #quilting--longarm channel!



MADE AT MAKERBARN!

Ed Fraini made little planters using slip casting. It was an easy start for his planned succulent garden, and he can't wait to do many more...



Ed Fraini made ceramic mushrooms with help of Lisa Lane's ceramics sessions.

MADE AT MAKERBARN!

David Grimmer made the Grimmer version of a National Park Sign which was created on a 30"x20" piece of Birch plywood. It was cut to shape on the CNC router. The Arrowhead parts and all of the lettering were cut on the CO2 lasers. Guides to get the lettering straight were designed and 3D printed.



MADE AT MAKERBARN!

Matt Folsom made laser cut 3mm BB plywood, used spray adhesive to attach photos printed in the Lab.



MADE AT MAKERBARN!

Joe Foster made hedgehogs

He makes the bodies out of scrap material around the shop and grade school age children nail in the nails. These two have not yet received all their quills.



MADE AT MAKERBARN!

Joe Shields did a Pantry makeover. Mostly cut and assembled at the MakerBarn.

David Grimmer made The zero clearance insert was created from a piece of scrap white oak on the CNC router. It is used with my 40 year old Shopsmith saw.



Colleen Helz made a bench with cubbies for back entry.

MADE AT MAKERBARN!

Mike Schoonmaker made 3 of these outdoor sofa arm “shelves” with wine glass cutouts. Wood is Ipe, machinery used was table saw, resaw, router, drill press and sanders.



Meet the Area Managers



WOODWORKING

Mark Bush is area manager of woodworking. 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



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.



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.



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.



CERAMICS

Lisa Lane is area manager for ceramics. Contact her via SLACK.



WELDING

Joe Foster is area manager for welding. Contact him via SLACK.



CNC MACHINING

Gary Alose is area manager for CNC metal machining. Still learning but happy to help! Contact him via SLACK.

For New Members

WELCOME to the wonderful world of making!! We know you will 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!



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MakerBarn Directors:

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

Executive Committee:

Kathy Barbieri - President
Jody Cochran - Secretary
Raul Garcia - Treasurer
Jim Barron - Membership
Matt Folsom - IT
Ashley Dickson - Member at Large
Mark Bush - Member at Large
John Buckley - Newsletter Editor

Area Managers: (Guru or Custodian):

Woodworking - Mark Bush
Lasers - Greg Radliff
3D Printing - Jody Cochran
Metalworking - Bryan Manka
Electronics - Raul Garcia
Welding - Joe Foster
Ceramics - Lisa Lane

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