



NEWSLETTER

October 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."

A Bit Closer...

We are a little bit closer to moving into the front of the building. The property owner had a big estate sale and sold quite a bit of the stuff that was being stored in suites 201 and 202. At least things are moving in the right direction. Hopefully we will be putting up Christmas decorations in the new space later this year.

It seems that September was the month for close tolerances, making precise measurements that is. In August C.E. showed us how to make wood joints that fit perfectly. In September we learned how we could use a light beam to make measurements in the billionths of an inch. We also took delivery of a surface grinder. This machine allows us to machine metal to within a 10,000th of an inch. Talk about splitting a hair, this machine allows us to split a hair 20 ways. We now have a group working hard on learning how to machine metal on the Bridgeport milling machine. The course is 8 weeks long, so hopefully we will have plenty of members who will be able to make new tools and machines for the Shop and Lab.

The holidays will be here before we know it, so start working on those ideas for decorations and gifts. If you have ideas, and would like to share them, use our facilities at either the lab or shop to share them with other members.



Getting together and brainstorming ideas helps everyone come up with new inventive projects and methods. Don't be bashful! Post a note on Slack about a meeting time and see where it leads. We have the tools, we can get the materials, all we need is the ideas.

Keep on makin!

George Carlson
President, MakerBarn

Surface Grinding arrives at MakerBarn

It seems like every month we add another tool or machine to our arsenal. This month it is a surface grinder.

Grinding produces the highest-level precision and surface quality of any machining operation except lapping and polishing. The grinding wheel act like a cutting tool with thousands of microscopic razor-sharp cutters. So, the accuracy and finish are much better than that made by a conventional milling machine or lathe. The downside is speed. Milling machines and



lathes can remove large amounts of material quickly, grinding operations remove small amounts of material, but do it with much higher precision.

The surface grinder uses a magnetic chuck to hold the workpiece. The grinding wheel runs on a high precision spindle that can be adjusted vertically to set the distance from the edge

of the wheel to the table. This distance can be adjusted in increments of 1/10,000 of an inch. The handle on the front of the chuck is used to turn the chuck on and off. When the chuck is installed on the machine, it is “ground in”. This makes the surface of the chuck parallel to the movements of the machine. This enables the machinist to produce flat, parallel surfaces accurate to 1/10,000th of an inch.

In the photo, MakerBarn member Mark Bush is grinding a pair of precision spacers that are made of a very hard steel alloy. The goal was to produce spacers 0.2000” thick, the result came out about two ten-thousandths of an inch undersize, so he was off about 1/10th the diameter of a hair, not too bad.

This tool will be valuable to people making precision tools, models, and knives. It is a great addition to our machine shop.

Next Potluck Dinner - Sunday November 13th, 4:30 - 6 PM



Our last MakerBarn potluck dinner was such a success, we're planning to hold another one! Join us on **Sunday November 13 from 4:30 PM until 6 PM**. Sign-up sheet is coming soon, and no you don't have to cook to attend (although you are welcome to do so) - just sign up and bring your appetite!

Another set of wood blanks on the way!

A huge thank you to Kevin Slaback and family who made the latest round of wood blanks for our friends at BrightLife Special Needs. They made wood 'blanks' of snowflakes, snowmen and calendars.

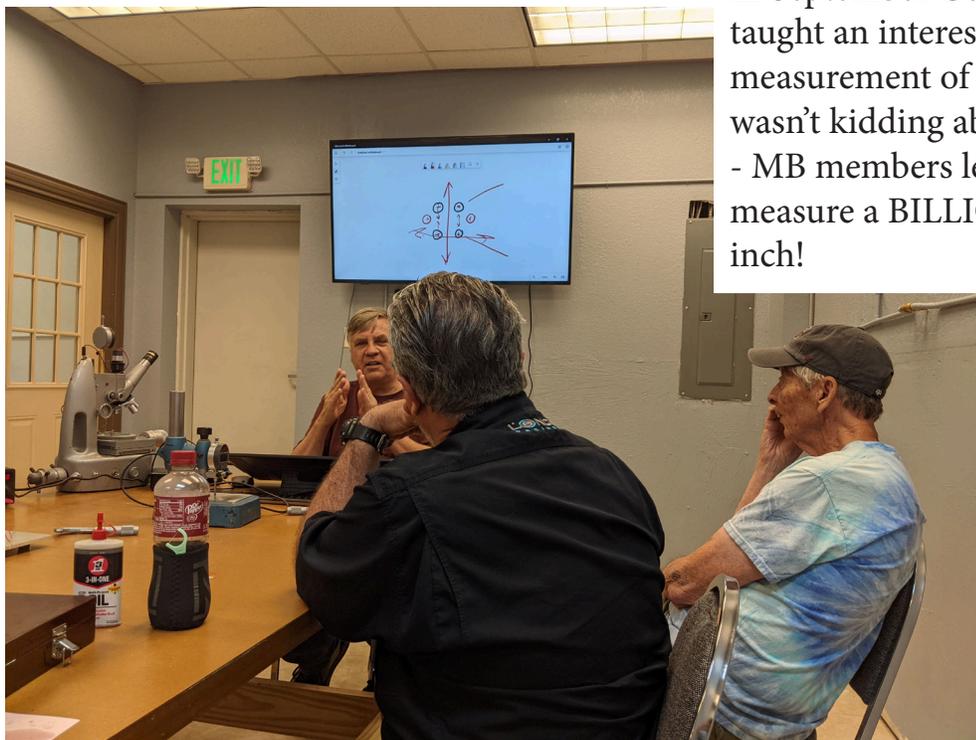
Members are always needed to cut out wood "blanks" (shapes) of various items for the special needs art sales. Will you volunteer to help? Takes only a few minutes of your time on the laser or woodworking equipment and they do all painting and decorating after that. ***Send a slack or email to John Buckley jb332699@gmail.com to help out.*** Thanks!



Are you Manager Material?

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



In September George Carlson taught an interesting class on the measurement of tiny things. He wasn't kidding about tiny either - MB members learned how to measure a BILLIONTH of an inch!

MADE AT MAKERBARN!



Colleen Heltz made birdhouses using woodworking tools in the Shop. They are named after her dogs.



MADE AT MAKERBARN!

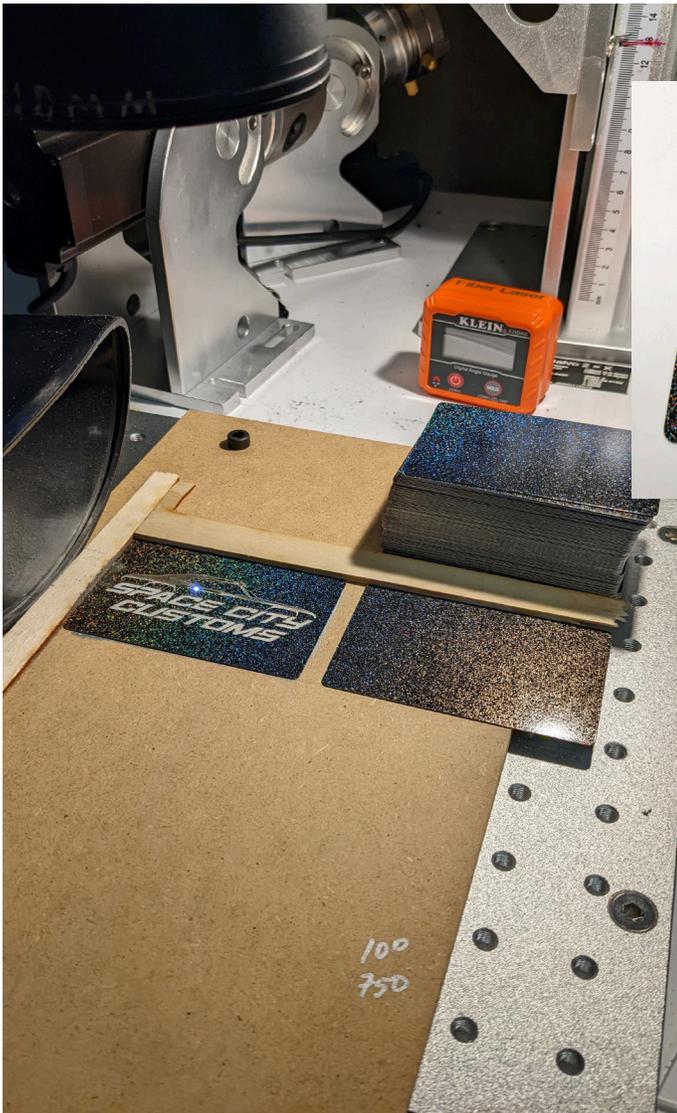


Hamilton Alexandre restored a vice. Pictures are before and after restoration. He sand blasted all parts and powder coated the iron parts at MakerBarn Shop.

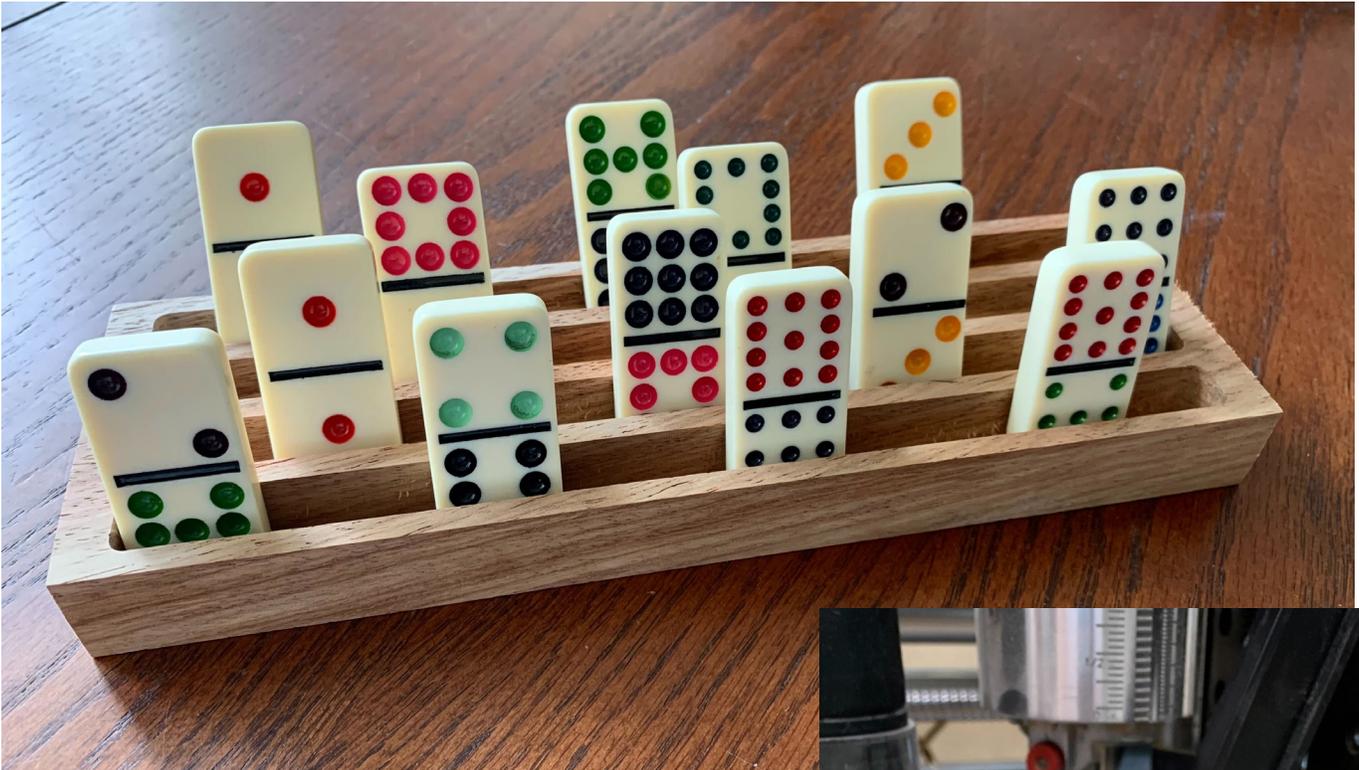


MADE AT MAKERBARN!

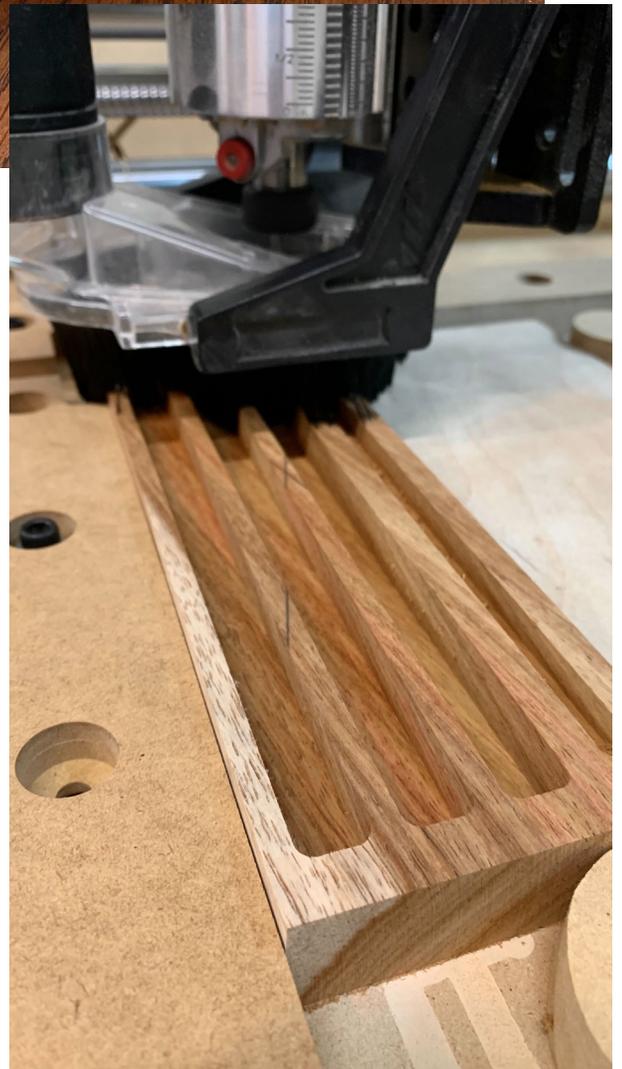
Hamilton Alexandre made custom business cards out of aluminum and etched with fiber laser. One hundred cards had a special glitter clear coat applied for a neat effect in the sun. Boxes were cut from 6mm MDF with the CO2 laser.



MADE AT MAKERBARN!



John Hoaglun made hardwood domino holders. This is the first prototype.



MADE AT MAKERBARN!



Jim Pontiff completely disassembled and rebuilt an old steamer trunk. He says, "Some things I knew how to do and some things I didn't - and still don't know!!" (Editor Note; he makes a great Jambalaya too!)



MADE AT MAKERBARN!



Robert Wozniewicz made solid walnut jewelry cabinet with brass accents using woodworking tools at Shop.



MADE AT MAKERBARN!

Mark Bush made this silverware organizer for my wife. It has a birch base and Maple dividers. I used the table saw, dado saw and resaw bandsaw for most of the work. Finished with a matte clear lacquer from Mohawk.



Mark Bush made this Chess board with Walnut, Maple and a Baltic Birch base. I used the table saw, resaw bandsaw and 70+ trips through the wide belt sander. Finished with a matte clear lacquer from Mohawk.

MADE AT MAKERBARN!

Mark Bush made these bowls on the wood lathe. These started from a fresh cut log from 2 different Oak trees. After rough turning these a few months ago and weighing them on a kitchen scale, they dried enough to do a final turn. I filled the holes with a variety of things (Brown CA glue, sawdust with wood glue and coffee grounds with clear thin CA glue). I finished them with a hard wax finish.



CE Raum made cutting boards with Houston Astros logo in the MakerBarn Shop (and maybe he finished them at some other maker space, but we won't tell!!)

MADE AT MAKERBARN!

Aniwat Akarasuthikorn (also known as “Parm” or Peter) is an artist who spends one day a month at MakerBarn making the raw shapes for as many of 100 of his popular unique wooden characters. You may follow him at

<https://www.instagram.com/wood.youmind/>

<https://www.facebook.com/Wood-you-mind-115888979797180>

<https://www.etsy.com/shop/yarnsterday>



Members, please remember!!

Members - PLEASE remember to clean up after using any equipment in the Shop or the Lab. Pictured here is equipment that was NOT left in acceptable condition.

Also, if you leave anything in the Shop or Lab you MUST label it with your name, date and when you will be returning to pick it up.



Items left without ID may be moved or disposed of at the manager's discretion!!

Meet The Area Managers

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|  | <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>Daniel Claybaugh</p> | <p><u>WELDING</u></p> <p>Daniel Claybaugh is area manager for welding</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
28030 FM 2978, Suite 204 77354
Phone: 832-663-6390



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
Doug Green - Web Site
Ashley Dickson - Member at Large
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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*MakerBarn Lab
28030 FM 2978 Suite 101
Magnolia, TX 77354*

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