



NEWSLETTER

March 2023

"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 Very Busy Month of February

Things were very busy this last month. Early in the February we moved the new (to us) CNC milling machine into the shop. On the 18th several of us went to the **Makerspace Crawl Kickoff at The ION** in downtown Houston that was hosted by Innovation Spark. Innovation Spark organizes many makerspace events such as the MakerFaire at the George R. Brown. We had our **quarterly Pot Luck Dinner** on the 19th. I didn't count, but there were probably about 40 or more people attending. We had some guests from Innovation Spark and a couple of guys from a new startup makerspace also visited. Toward the end of the month we received delivery of a **new 90 watt laser** dedicated for rotary use, more about that later.

On March 24th, Mayor Czajkoski, the **Mayor of Conroe** came for a visit. He wanted to learn about the makerspace concept and see if a makerspace could help educate and give direction to the underprivileged youth in Conroe. He seemed to enjoy seeing The MakerBarn and thought it was a very special place.

Slowly but surely the surplus **ceramic molds** are finding new homes. David Overland, from CreatorMakerspace called and said they would like some. I told him to come and bring a big truck. If you have any ideas about people who may want some of our extra molds, have them get in contact with The MakerBarn and we can certainly provide them with some ceramic molds.

Our ranks continue to grow. Several new members have joined us. If you see a person you don't know, be sure to introduce yourself and welcome them to the makerspace.

As always, if you have any ideas to help make The MakerBarn even better, don't keep it a secret.

George Carlson
President, MakerBarn



Finally, the New CNC Mill is Here!

Well, it took awhile but it's finally here - the new Makerbarn CNC Milling Machine. We had a hard time finding a company capable of moving this 4,500 pound monster across a field and through the woods then down the highway to our shop but it's here now.

In many ways, the CNC mill is much like our CNC router. They both use electronic control systems from the same company, Centroid. They both have 3 axes, X,Y, and Z. And they both require a bit of skill to operate. The primary difference is in the material they are designed to work with. The CNC mill is capable of machining almost any material from soft to some of the hardest metals. It can do this with about 10 times the precision of the CNC router.

The machine is a Trak DPM built in 2002. It was updated with a Centroid control system in 2016. We have updated the software to the latest version from Centroid. Since the machine was well cared for and in a hobby shop environment, it is almost in like new condition.

We have quite a few computer controlled machines around the makerspace. The lasers, 3D printers, vinyl cutters and router all rely on a computer to control the machine. External software like LightBurn and V-Carve are needed to compose programs to run the machines. The CNC mill is much the same. Although we could use V-Carve, this software is not designed for metal cutting. Software like Fusion360 and MasterCAM will fit much better. For those that are interested in the machine's specifications; The table size is 10"x50". Movements are 30" x 17" x 24" (190 liter build volume for the 3D printer people). The table is big enough to surface the cylinder head from a V8 automobile engine. The spindle motor is 3HP and runs 200 to 1800RPM. Using the machines variable speed transmission, it has a range 100 to 4200RPM. The spindle is a CAT40 with power drawbar. Tool holders will be provided, but users must supply their own cutting tools. If desired, tool holders can be purchased through Amazon, and they are not too expensive.



A huge thank-you to everyone involved in acquiring and moving our newest machine!

MADE AT MAKERBARN!

Amanda Kerdahi made a woven cutting board at MakerBarn



Here's an important reminder to all members; the primary communications tool for the MakerBarn is our Slack Account and the channels within it. Email is **only** used for the monthly newsletter and any urgent news that must be shared with all members.

Ask any manager to send a SLACK invitation text to your phone and then you can activate the SLACK app for the MakerBarn.

Please be sure to use Slack and join all channels that are of interest to you. By doing so you are assured of staying in touch with everything going on at the Barn.

MADE AT MAKERBARN!

Colleen Helz made a candle centerpiece from a live edge piece of black walnut. She used the resaw, drill press and drum sander.



Colleen Helz made bowls were from some Aspen logs that she found in Colorado. She used the resaw, and the wood lathe.



MADE AT MAKERBARN!

Jerrel Geisler made a sign for his niece's wedding. Pictures are before and after finishing.



MADE AT MAKERBARN!

Joe Foster made flying fish for a teacher friend's class. They were designed in Fusion 360 and printed on the Prusa 3D printer using some of the mystery filament from the lab. When you squeeze the clothes clip the wings flap. Neat design idea!



MakerBarn is considering creating a community garden in 2023. What do you think about this idea? How would you like to see it done? We might operate it similar to the “veggie garden” run by Interfaith of The Woodlands. Share your ideas in the new Community-Garden channel of

MakerBarn SLACK for now and if enough interest is shown we may just call a meeting & explore this further!

<https://woodlandsinterfaith.org/programs-services/veggie-village-5/>

MADE AT MAKERBARN!

Robert Wozniewicz - made a traditional pendulum wall clock. It is made from solid walnut with brass accents and an etched glass front. Thanks to Greg R for an assist with the intricate etching.



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!

MADE AT MAKERBARN!

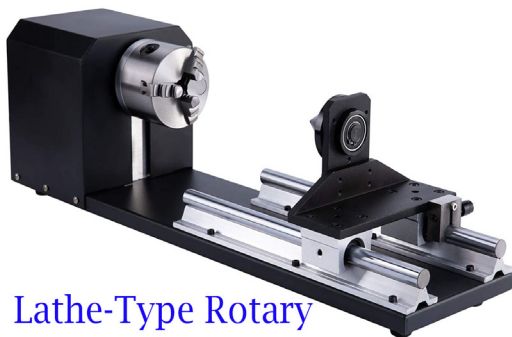
Hey, what is that big green thing that just landed in the Laser room? Why, that's our new CO2 Rotary Laser! It will be dedicated for rotary use, with both a lathe-like rotary and a roller type. The lathe-like rotary has a 3-jaw chuck and a tailstock. The roller type has wheels to roll the workpiece. It is great for objects like wine bottles because the rollers can be adjusted for odd shaped round items.

Both rotaries will be permanently aligned and attached to the bed of the machine. A handheld electronic crank will allow precise location of the gantry over the object to be engraved. There is no need to operate a switch to go into rotary mode or select which rotary. The system will be much simpler to operate than we had before.

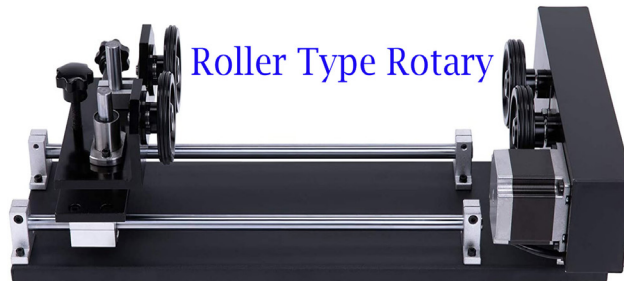


The laser has a 90-Watt Reci laser tube. This should provide plenty of power and a long life. The system should be ready to use in about a week. It will be located in the main Laser Room. Watch Slack for

announcements of demonstrations and educational opportunities.



Lathe-Type Rotary



Roller Type Rotary



There are two events coming up! First, MakerBarn members are invited to the Hewlett Packard (HP) campus on Thursday, March 9th from 2:00 - 5:00 PM to make t-shirts. The goal is to show HP that we have a wonderful community of makers and skills.

The second event will be held at The MakerBarn on Saturday, April 8th, 10:00 AM - ????. We will invite kids from the community to do some crafting with the laser cutters and 3D printers.

Last year, member Jody Cochran, was awarded a grant of \$5,000 for a similar event. He is hopeful that another grant will be awarded this year. If you are available and interested in either event, direct message Jody on Slack or send an email to info@themakerbarn.org.

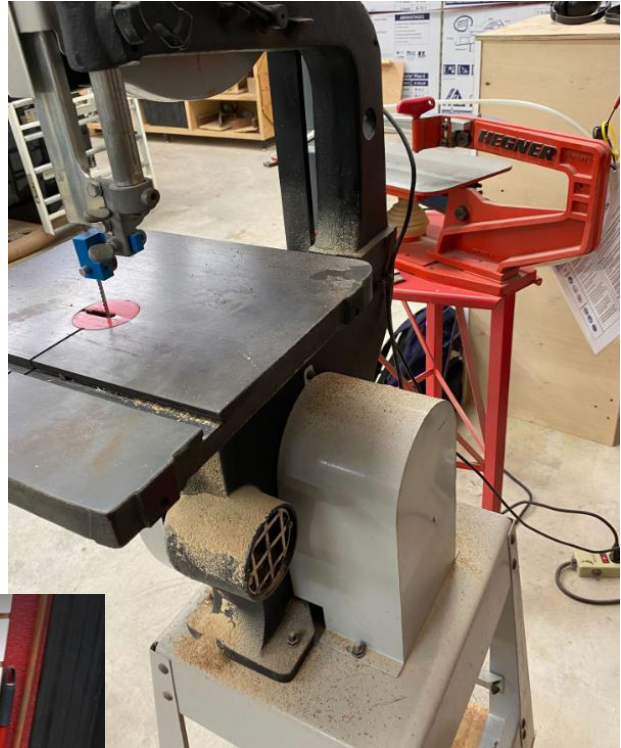
A big thank-you to everyone who cooked and/or ate at our Winter MakerBarn PotLuck dinner on February 19. No one left hungry! And everyone enjoyed meeting other members. We will do it again in Spring, stay tuned for details!



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

	<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 & The Lab

28030 FM 2978, Suites 201, 202, 203 & 204, Magnolia 77354

Phone: 832-663-6390

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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