



NEWSLETTER

March 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."

"In the spring a young man's fancy lightly turns to thoughts of woodworking and 3D printing" Maybe Lord Tennyson didn't say exactly that, I'm sure he meant young women as well. Spring is near, which means garden bird houses, trellises, wind sculptures and spinners must be built.

C.E. hosted a class on beginning stained glass work which was well attended. A stained-glass mobile would be a great addition to the garden.



Earlier in the month we had the "Master Lathe Competition" in which Elizabeth Jones took the honors. Thanks goes to John Webb for organizing and providing food for the award ceremony.



On Wednesday, March 2nd we will have an informal workshop on learning about electronic test equipment. This should help members understand the purpose of those strange boxes in the electronics lab. This will be a precursor for the "Practical Electronics for Makers" class which will start later this month.

Enjoy the improving weather and be safe.

George Carlson
President,
MakerBarn

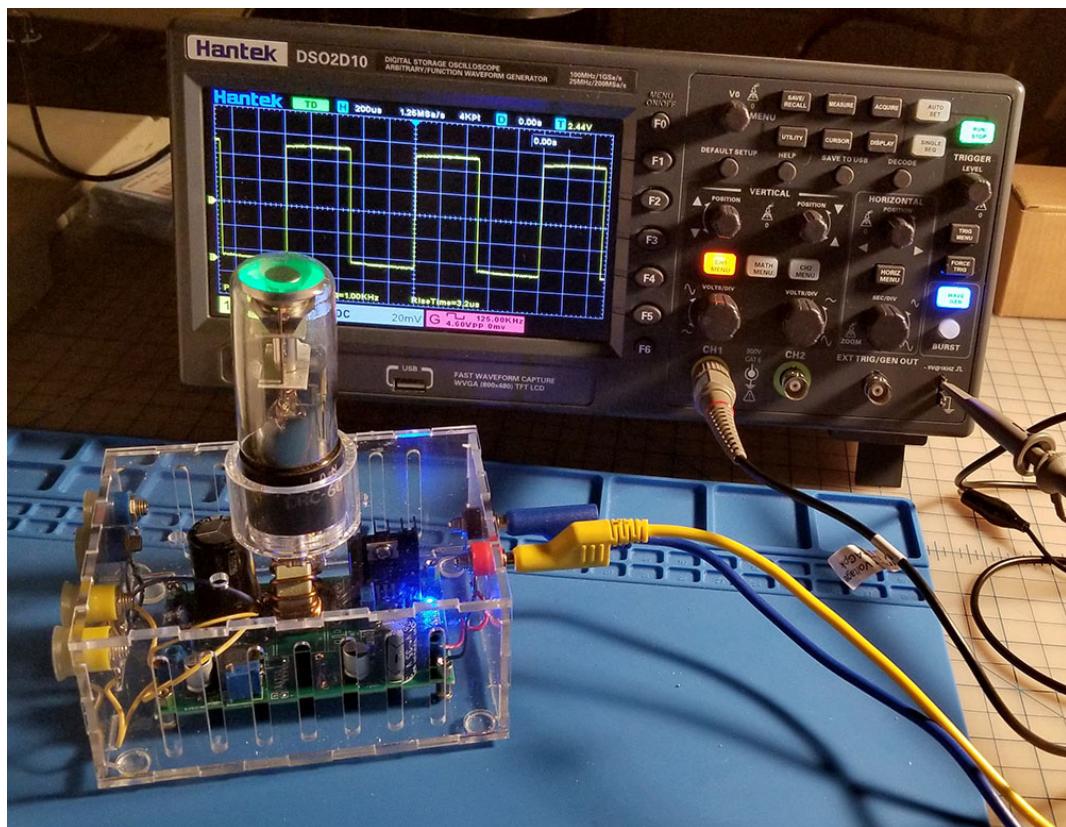
Electronics Test Seminar/Meetup, March 2nd

Have you ever wondered what all that stuff in the electronics lab was? **Wednesday evening, March 2nd, at The Lab**, I will be holding a workshop on Electrical/Electronic Measurement. We have several different types of test devices in the electronics lab. We will explore the basic use of several of these instruments. The purpose of the workshop is to help members be more comfortable with using the equipment to explore electronics or simply repair a broken appliance. It's just for fun, nothing serious.

There will be a little history of how and why the instruments were invented. You will learn how to use the digital multi-meter to make simple voltage and resistance measurements. We will discuss the function generator, power supplies, and even have a chance to learn about oscilloscopes. It will be a casual workshop with plenty of hands-on opportunities. Everyone is invited and there is no charge.

The workshop will start at 7:00pm and will probably last about an hour and a half. This will be a lead-in to a series I am putting together to teach basic practical electronics.

Thanks, George Carlson



Practical Electronics Class Begins This Month

Practical Electronics for Makers will be an introduction to electronics for the hobbyist/maker.

The course is designed to help the student become familiar with common electronic components and their uses. Each class session will have hands-on experiments. In one of the sessions, the student will construct a discrete component version of a famous integrated circuit, the LM741 operational amplifier. The student will assemble and solder a circuit board, then test it for correct operation. The course will use some math, but it will be kept at a bare minimum.

All parts and electronic test equipment will be furnished, the student should bring their own calculator, safety glasses, and close-up glasses. If you don't already have magnifier glasses, an inexpensive pair of reading glasses of +2 diopter should work well. Each seat will be equipped with a Multimeter, Power Supply, Digital Oscilloscope, and necessary test leads and supplies.

Due to the limitation of equipment and space, only 5 seats will be available per class. Since more people are expected to want to attend, there will be two classes running concurrently. Group A will meet on Tuesday evenings, Group B on Wednesday evenings. The sessions will last two hours, from 7:00pm until 9:00pm. There will be 12 sessions in the course, a total of 24 classroom hours. If a child and parent wish to attend, they can share equipment/materials and be considered one seat. The course is limited to The MakerBarn members. **There is a lab fee of \$30 to cover materials.** The classes begin on Tuesday March 8 and Wednesday March 9. If you would like to attend this course, please email George Carlson at geotekds@swbell.net. If you have a preference for either Tuesday or Wednesday, please state it in the email.

1	Ohm's Law, Voltage, Current, and Resistance. Digital Multimeter use.	7	Transistor circuits, simple applications of NPN and PNP transistors.
2	DC circuits, resistor circuits, power	8	Build an integrated circuit using discrete components. Soldering and troubleshooting.
3	Capacitors, simple RC circuits, Intro to the Digital Oscilloscope	9	Simple Operational Amplifier circuits.
4	Inductors, types and how they are used.	10	Special applications of Op-Amps.
5	Resonate LC circuits	11	Introduction to the LM555 timer.
6	Introduction to bipolar transistors	12	Q&A, Course review.

Welcome new Members!

In the month of February, MakerBarn welcomed the following new members:

Brandon Courmier	Joined Feb 16
Forrest Lundy	Joined Feb 16
Skyler Rosenberg	Joined Feb 15
Jon Green	Joined Feb 15
Norm Smith	Joined Feb 15
Gary Oakley	Joined February 2
Lucas Jackling	Joined Feb 1

MakerBarn Newsletter Back Issues Now Available!

It's hard to believe this is the 20th issue of the MakerBarn newsletter - well, at least the editor finds that hard to believe :-)

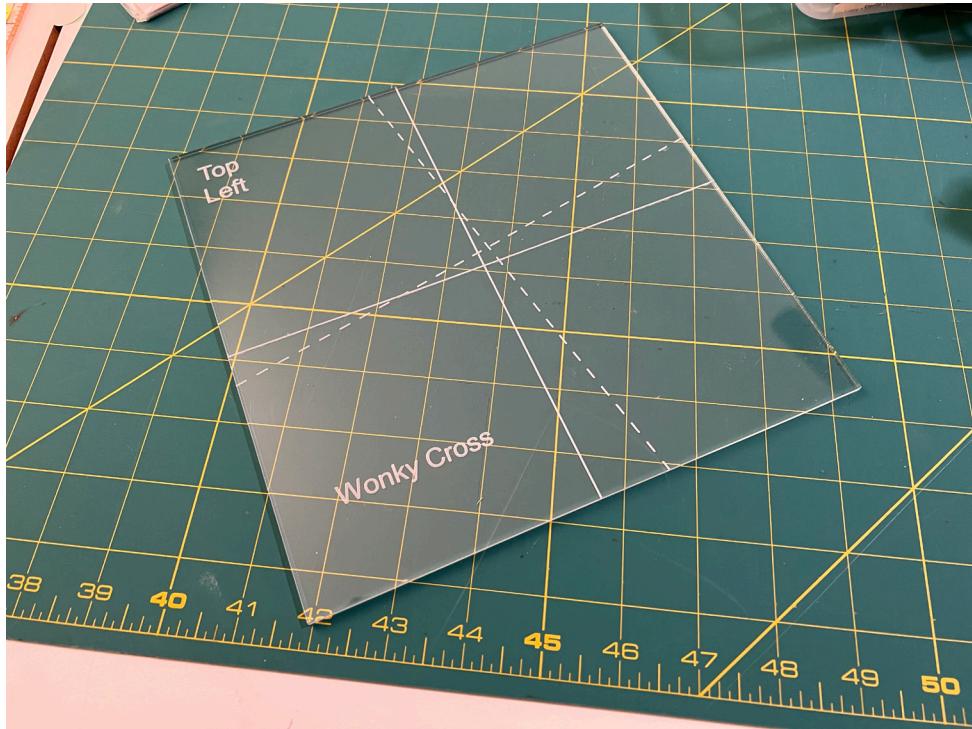
If you are new to the Barn, you may be wondering what other things have people made around here? Well, now you can see all the many projects we've documented since May of 2020. Just head over to the the MakerBarn website at <https://www.themakerbarn.org/> and scroll all the way to the bottom where you will find our new archive of every issue - enjoy!

Newsletters

- [February 2022](#)
- [January 2022](#)
- [December 2021](#)
- [November 2021](#)
- [October 2021](#)
- [September 2021](#)
- [August 2021](#)
- [July 2021](#)
- [June 2021](#)
- [May 2021](#)
- [April 2021](#)
- [March 2021](#)
- [February 2021](#)
- [January 2021](#)
- [December 2020](#)
- [November 2020](#)
- [October 2020](#)
- [September 2020](#)
- [August 2020](#)
- [July 2020](#)
- [June 2020](#)
- [May 2020](#)

Made at MakerBarn!

Joe Foster made a quilting template for each member of his wife's quilting group.



Joe Foster made a key rack near the door to their apartment. The inlay work was done with the laser similar to how you would do it with CNC.

The black walnut was etched with the laser, and then the opposite was done on the birch wood. Glued the two together, and finally used the CNC to take off the excess.



MADE AT MAKERBARN!

Joe Foster explains, “our apartment complex provides every resident with grey garbage cans and mandates that we use them (and not harm them). I wanted to make ours unique with a very simple project; a second garbage can (black), some gaff tape, and the vinyl. The Barn portion was cutting the vinyl.”



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!

Robert Wozniewicz made four Charcuterie boards and two cutting boards. Made from a variety of hardwoods. Primarily using bandsaw and router table.



David Long made organizing parts for his Milwaukee tools. He used Lulzbot, Ender and Prusa 3D printers.



MADE AT MAKERBARN!

Joe Beagle made end grain cutting boards



Rod Garza won points with his wife by making her a heart shaped “Catch All Tray”. It was made with Maple and Paduk using CNC.

Rod also turned his first Acrylic Pen on the Makerbarn lathe.

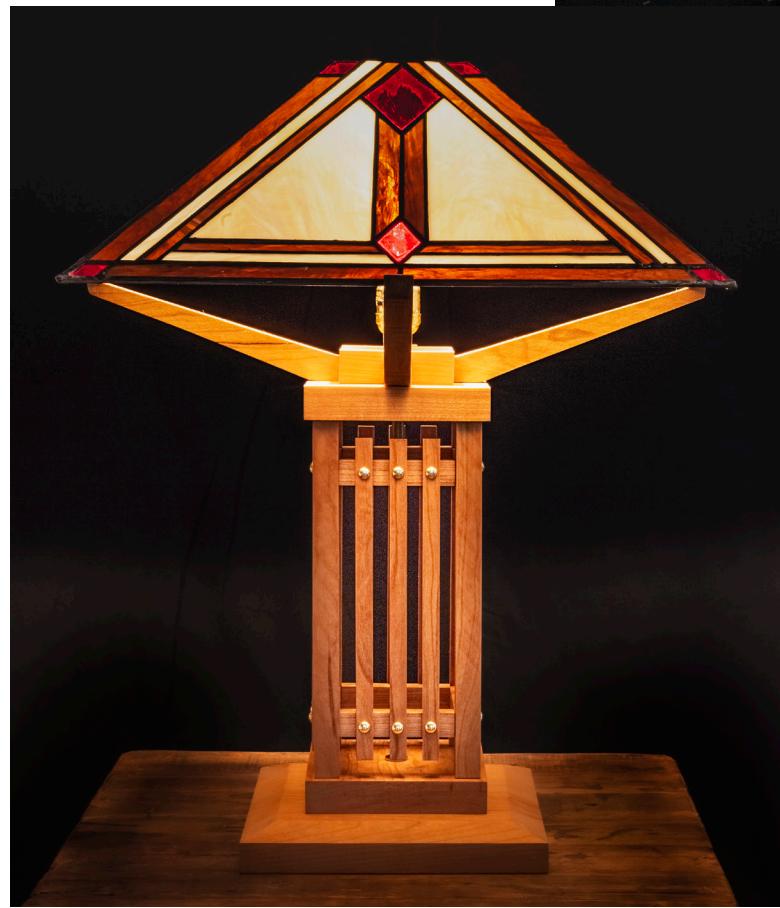
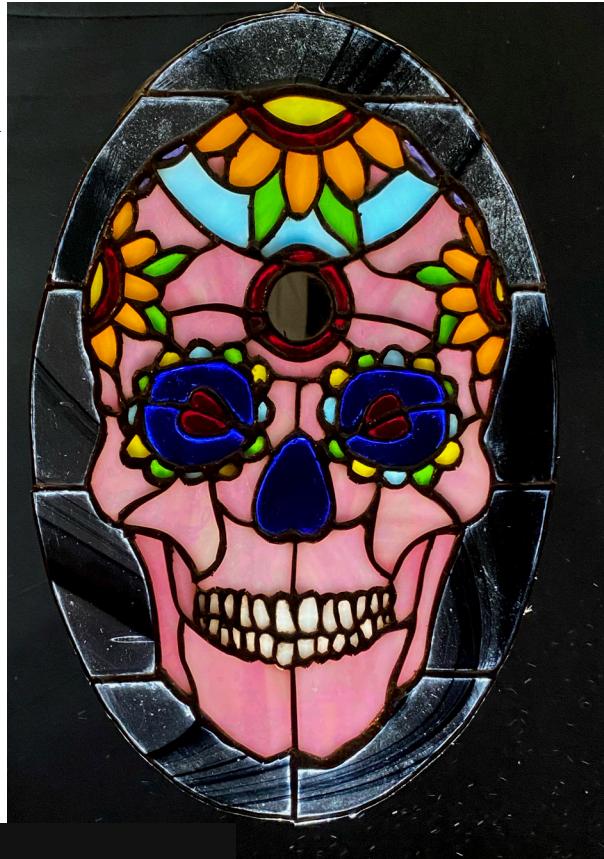
MADE AT MAKERBARN!

Joe Beagle made a wall plaque with the logo and the kids' names from a wrestling club one of his sons plays in. The plaque was a going away gift for the head coach, who is moving to Las Vegas.



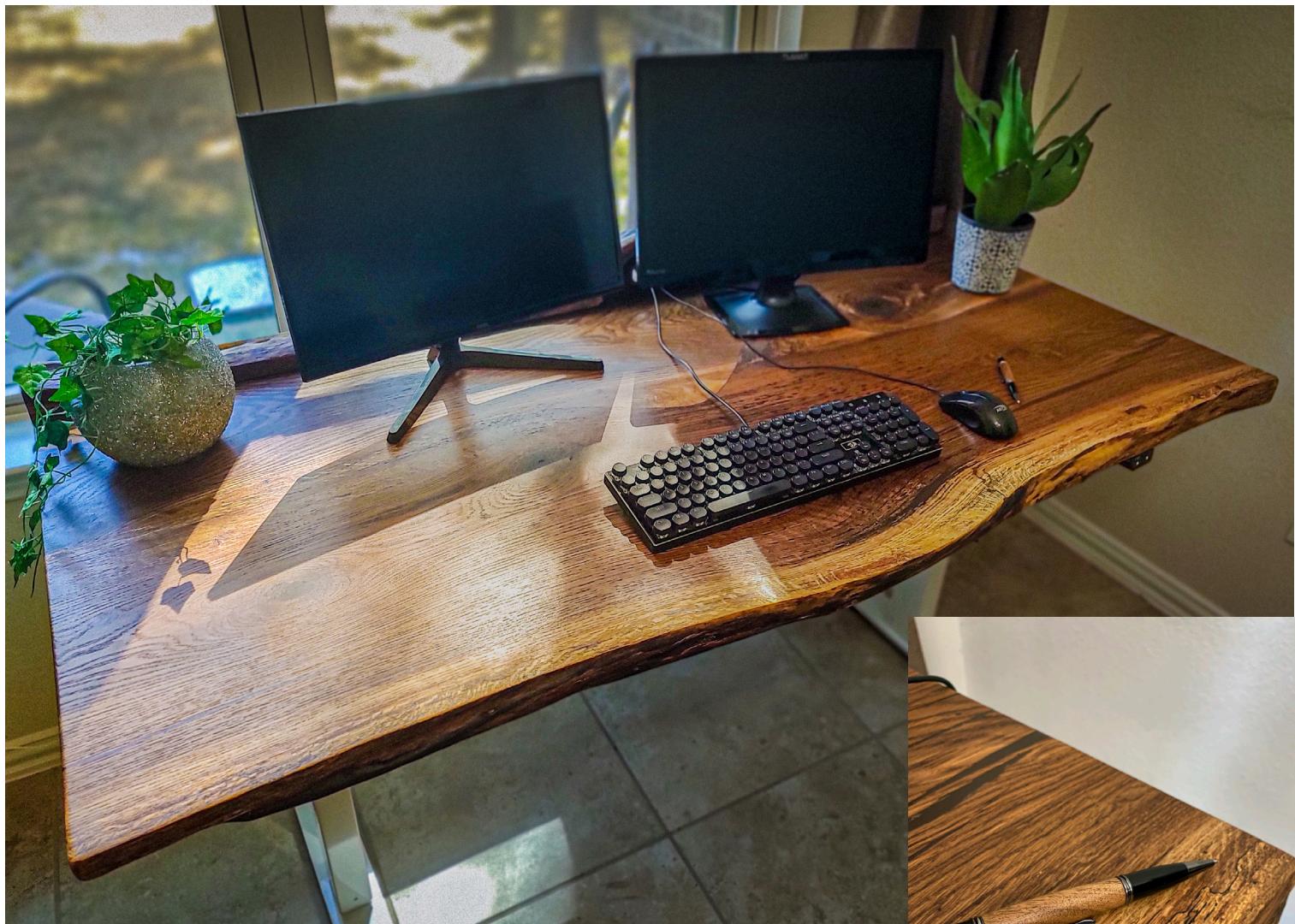
MADE AT MAKERBARN!

CE Raum made a Stained Glass Sugar Skull. He purchased a pattern on-line, and after a few changes and LOTS of tool purchases he was able to make this sugar skull inspired design. The pink glass came from a large donation of materials to the MakerBarn.



CE Raum made a lamp shade and “electric reading lamp” from cherry wood and stained glass using a pattern from a Dover book first published in 1911. He used the Shop mortiser for the first time and was very pleased with the strength of the joints and how everything was self squaring. He made lots of jigs to help keep the spacing even and straight for all the little pieces.

MADE AT MAKERBARN!



CE Raum made a desk from a wood slab. He credits John Webb with helping him locate large slabs of aged wood to create a sit/stand desk using epoxy resin. He used the Shop CNC to repeatedly flatten and finally create a matching curved joint to marry two slabs into one. In The Shop he created a large waterproof box out of MDF, Flex-Seal and Tyvek tape so he could pour 2 3/4 gallons of dyed epoxy resin to stabilize and make beautiful these aged pieces of oak. He also used one of the live-edge cut-offs (at Elizabeth Jones' suggestion) to create a "backsplash" and a wood grommet on the CNC for a cable pass-through. The circular saw added a nice chamfer on the straight edges.

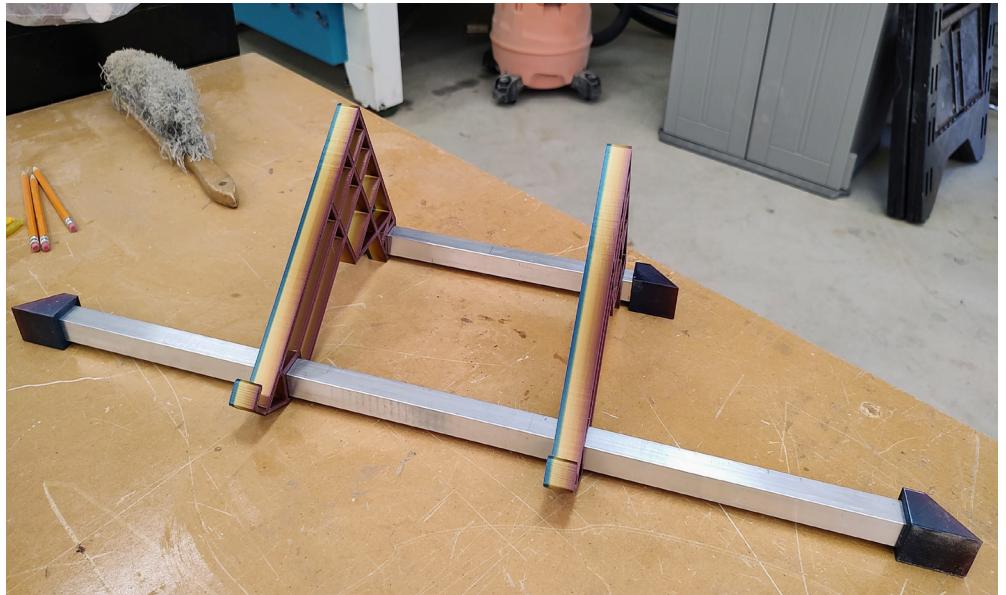


And **Rod Garza** made a pen from one of the desk slabs cutoffs.

Beautiful !

MADE AT MAKERBARN!

CE Raum made 3D printed computer stand. These simple stands were designed in TinkerCad. The stands and end caps have a cut out to accommodate 3/4" square aluminium tubes. Variable color filament was used to give it a pleasing rainbow look. He also printed out another set using the LulzBot printer.



Will You Help Brightlife This Year?

Our friends at YMCA Brightlife special needs have asked us to help them with three projects for their Easter Art Sale which is planned for April 15.

Volunteers are needed to help make wood blanks (= cutouts with no artwork) for three planned items;

- 1) Set of 3 stand up Easter Bunny wood shapes.
- 2) Easter Bunny wooden door hangers.
- 3) Small laser cut wood Easter eggs for use with garland.



If you have time to help, write to John Buckley at jb332699@gmail.com or Slack. Thanks!

Master Lathe Competition



A MakerBarn friendly “Master Lathe Competition” was held this year and it concluded on Friday February 11 in the Shop. Barn member John Webb supplied five pieces of recently harvested hickory for five challengers to see what they could do with it. There were no restrictions on what a challenger could make from the material other than that it had to be made solely on the Shop Laguna wood lathe and from one of the five pieces of Hickory provided.

After intense judging by the experts, Elizabeth Jones took home the honors which included the honorary title of “Wood Lathe Master 2022” and a \$25 Rockler gift card!

Many thanks to John Webb for organizing the contest and the award ceremony evening.

Meet The Area Managers!

	<u>WOODWORKING & CNC</u> 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.
	<u>LASER PRINTING</u> 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
	<u>3D PRINTING</u> 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.
	<u>METALWORKING</u> 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.
	<u>ELECTRONICS</u> 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.
Daniel Claybaugh	<u>WELDING</u> Daniel Claybaugh is area manager for welding

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: 832-663-6377



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
Daniel Cielecy - Treasurer
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

Copyright @ 2020 MakerBarn, All rights reserved.

We are a 501(c)(3) non-profit corporation

You are receiving this message because you requested info at a Makerbarn event or through our website

Our mailing address is:

*MakerBarn Lab
28030 FM 2978 Suite 101
Magnolia, TX 77354*

If you no longer wish to receive this newsletter please write to info@themakerbarn.org