BridgeWire MAKERSPACE

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MARCH 2019

PARACORD COMPETITION EXTENDED TO APRIL

In order to insure a viable enrollment in the Paracord competition we've extended the deadline another month. Paracord weaving can be a fun and relaxing pastime. Hikers and outdoor sports enthusiasts sometimes use "survival bracelets" made of several feet of paracord which is woven into a compact and wearable form. Such bracelets are meant to be unraveled when one needs rope for whatever purpose. Paracord has also been used for whipmaking. The durability and versatility of this material has proved beneficial for performing whip crackers and enthusiasts. Since nylon does not rot or mildew, it has become known as an all-weather material for whipmaking. Bridgewire has all of the tools for creating some really interesting designs. And there's always someone to help get you going.

CANDLE MAKING COMPETITION COMING UP THIS SUMMER

John T. is in the process of gathering tools and equipment for the event. Candle making is a fascinating hobby that is making a comeback with folks feeling a need to work with their hands and make something useful, to create a peaceful ambience in their personal space. Bridgewire can supply the tools and workspace that's needed to make candlemaking a part of their life, eliminating the mess and expense of this exciting practical hobby. Bridgwire will supply all the equipment necessary to create your favorite design.

BOARD OF DIRECTORS

February Board meeting The February Board of Directors meeting was cancelled due to board members personal emergency.

February Officers meeting- The first monthly officers meeting was Saturday Feb 23rd. Attending were Eric, John, Lance, and Ralph, with Tanya phoning in from home and Ryan Bibee sitting in.

Treasurer's Report

Eric expressed the need for more formalized financial reporting procedures.
Ralph agreed and committed to creating and following the plan.
Ralph reported Bridgewire's financial status and assets.
Eric reported on the positive progress on Bridgewire's State Non-Profit status approval.

Education Report

John reminded us that to qualify for our non-profit status we need to show that we are educating people. Meanwhile the Paracord competition is experiencing a low to non existent turnout so a new marketing approach was discussed, focused more on social media, in order to minimize the "spam" factor. Also the need for more, usable photos to create content for the marketing, focusing more on the participants and less on the Bridgewire personnel. John reminded us that the BBBS is having an event on the 27th of February. You can follow it on facebook. A new wood working class conducted by Roman was discussed and he requested that a consistent "start guide" would be needed. The Hug High/ First Robotics Competition (FRC) / Bridgewire collaboration is a success and the Robot will be headed to the competition in Sacramento in March. Bridgewire has added 2 more enthusiastic members from the group. Some insurance issues were discussed surrounding the coverage of minors at Bridgewire.

Facilities Report

Eric mentioned that we are still in need of a real facilities manager meanwhile he continues to fill in. He reported that he had spent about $300 on materials over the past 2 months. Equipment repairs and new equipment were discussed as well as a report concerning the success of the housekeeping arrangement and the installation of Microsoft office on the front computer.

Marketing Report

Lance expressed the need for more input for facebook and newsletter content including photos and articles.The use of available technical websites such as Instructables and Pinterest to increase interest in creative projects for members was discussed. A "Spring Tool Maintenance" event was suggested where a member could volunteer to spend a day helping repair and sharpen members garden tools.

President's Report

Some corrections to the minutes of the previous meeting were discussed. Eric reminded us of the importance of separating the Officers meetings from the Board of Directors to allow the Board to focus on more strategic matters. Eric announced new member Chris .

ROBOTICS

"RoboHawks" the Hug High School First Robotics Competition team was at Bridgewire almost everyday for the last month designing and assembling their entry in the FRC First Robotics Competition. The finished product is now sealed until the competition in March.

FACILITIES

NEW LASER CUTTER

We have a Full Spectrum 20x12 Hobby Laser available for at least the next 6 months. The Retina Engrave software is very easy to use and makes great picture engravings. You can learn how to use this laser at our monthly Laser class as listed on our calendar of classes.

3D PRINTER

Last month member Scott Riemers donated a Monoprice Maker Select printer. This machine uses a microSD card to import slicer files created from your STL file. The printer works reliably and is producing “Good” prints. There are several suggested improvements that will get the performance and surface finish to “Very Good”. Get involved and help make it better. You can learn how to use this 3D printer at our monthly 3D printer class as listed on our calendar of classes.

VINYL CUTTER

Last month former member Jeff McDougall donated a KNK Force vinyl cutter. This machine is amazing. It has embossing, engraving, and cutting tools. It can handle a wide range of thin materials such as paper, fabric, leather

and more. The materials are attached to a large 15x15 inch usable area Force mat. You just need to create an SVG vector file of what you want to cut with your graphics software (Bridgewire has CorelDraw for your use). The machine is less expense to operate than the familiar Cricut brand machines. Currently, Baljit is learning and using the machine the most.

SHOP CLEANING: We had 2 member participation days. One in January and another in February. The January cleanup day entailed removing the rolling sign, a complete shop sweeping, painting new tools magenta, and the removal/recycling of many items from the shop. In February we had a Facility Projects Day in which members made the wood belt sander mobile, installed an air filter for the woodshop, and made a cover for the inspection plate. Thank you to: Lee, Baljit, Stephanie, Craig, Lance, Ryan, Eric, Matt, and probably a couple of others we forgot to mention. If you don't see your name above, there will be a Clean-the-Shop day in April when you can make good as a contributor to our Bridgewire community.

FACILITIES OFFICER: We are still in need of a facilities officer. Someone who understands how to maintain and improve our tools and equipment. Other areas of responsibility include improving the signage, aesthetics of the facility, and general upgrading of the equipment and tools as opportunity arises. And of course, addressing safety concerns as they become apparent. If you would like to help, please contact the Board of Directors at officers@bridgewire.org.

ROCK PAINTING

Big Brothers Big Sisters enjoyed another exciting event Wednesday night. Starting with a giant pile of rocks, the BBBS artist teams transformed them into colorful works of art. The Bridgewire shop was bustling with blue aprons generously supplied by Greater Nevada Credit Union.

TANYA'S FIRST PROJECT

I joined BridgeWire feeling somewhat overwhelmed by the possibilities. I manage a small classic car business, and I was curious how BridgeWire might help me solve problems in that context. However, there's a lot of seriously cool tech that simply fascinates me, and that also tends to influence where I wander.

My dad had a degree in electrical engineering and another degree in mechanical engineering, and he was literally a rocket scientist. He raised me to have an engineer's mindset. As part of that, I was probably one of relatively few teenage girls who eagerly awaited the arrival of the newest Popular Science and Popular Mechanics magazines.For a combination of reasons, the first class I took at BridgeWire was about computer-driven industrial lasers. The particular laser I learned about can cut and etch a variety of materials including wood and plastic sheeting.

Here I am, by that machine.The industrial laser I used tonight has a concentrated light beam that a mirror then sends it to a lens right above the burn point. The lens concentrates the light to maximum intensity at a specific height so it's vital to position the material at that exact height. The gauge helps.For my first project, I chose a picture posted in social media that morning, by someone I find particularly interesting because she's intense, creative, nuanced, cerebral

and shy. The plan was to convert her picture into a dot pattern and then etch it onto Balkan Birch plywood. The first step was to have that picture loaded into the industrial laser console. That was a multi-step process. Here's her picture on the display. The finished wood etching is still in the machine. Not in science fiction but right in front of me, it was fascinating to see an industrial laser burn very rapidly through a piece of plywood, cutting out one section and etching some other sections. Eric, the charming and well-informed instructor, made the complex process comprehensible – and fun. His notes were super-helpful, too! The pretty smile was converted to a dot pattern for conversion to industrial lasering commands. Then, the laser etched that onto the wood.Success! I hadn't expected that I'd be able to create something this complex on my first night. I'm delighted! It's a credit to how well Eric teaches this class.

ARTICLES NEEDED!

The Newsletter- In an effort to be more informative and more relevant to the interests of Bridgewire members, The Bridgewire Newsletter is very interested in what our members have to say and share with the Bridgewire community. We welcome any input from our readers, from a complete article of particular interest or an idea for something we can pursue and share with the members. Please email your entries to Marketing at officers@bridgewire.org

EDUCATION HAPPENINGS

Pete and Stephanie are hosting the next Big Brothers and Big Sisters Event on Feb 27th. This months activity is rock painting, bigs and littles will create their own designs with supplies from Bridgewire. If you have any questions that could help, please relay them to John at renoscuba1@gmail.com .

First Basic Soldering Class Ryan Bibby and Baljit Saini organized the first basic soldering class in a series to be repeated on the 3rd and 4th Tuesday of the month with lessons in soldering, basic circuitry and electronics projects. Baljit was on hand to explain the finer points of professional techniques and give the class some hands on experience in the fine art of soldering.

Regular Monthly Classes and equipment Safety Training:

- **1st Thurs – Welding Shop:** Safety Demo + knowledgeable user check off - by Lee Elliot
- **2nd Thurs - Laser Cutting:** Safety Demo + User Training.- by Eric Bradford
- **3rd Thurs - Wood Shop:** Safety Demo + knowledgeable user check off - by Roman Hruska.
- **4th Thurs - 3D Printing:** Safety Demo + User Training.- by Ralph Santos

Reoccurring Education classes and events:

- **CAD Class:** Learn 3D CAD modeling so you can make items to 3D print or machine on the CNC Wood router..
- **CNC Wood/Plastic Router Classes (Intro):** Learn the basic principles of CNC wood routing on the Shapeoko 2 router. This class will introduce you to the basic process steps so you can machine small items This class is free to members and has a $20 fee for non-members.
- **CNC Wood/Plastic Router Classes (Adv):** Apply the principles of CNC wood routing on the Greenbull Router. This class introduces you to a powerful 3 Horsepower router spindle for cutting large and thick materials. The **(Intro)** class is a prerequisite to this class. You must be a member to take this class and has a $30 fee.
- **Embedded Systems Group:** 3rd and 4th Tuesday of the month with lessons in soldering, basic circuitry and electronics projects.

Groups meeting at Bridgewire

- Big Brothers & Big Sisters (activity monthly)
- Hug High School Robotics Competition Team "RoboHawks"

Your group can meet here also. The only requirements are that at least one member of the group must also be a Bridgewire member and that the group obey the rules of our Policy Manual. Schedule your event per the calendar instructions below.

AMAZON PAYS BRIDGEWIRE

We use Amazon SMILE. When you make a purchase through Amazon, THEY will donate to our non-profit Bridgewire, if you setup your account to do so. All you have to do is login to your Amazon account through smile.amazon.com before you make your purchase. Specify "Bridgewire" as your charitable

organization. Many of us have installed Amazon Assistant (quick link) to easily return to AmazonSmile when you login to Amazon. Each donation is small, But if we all participate this could add up.

Bridgewire just got a $59.22 check from Amazon Smile for last quarter.

FINAL NOTES

Please help clean-up. Let's not forget that Bridgewire is a co-operative facility that relies on member participation to maintain the facilities while keeping an affordable fee structure. So we can all try to join in when there's a work session or just pick a project such as sweeping, dusting, wiping tools and tables, there's plenty to do and I'm sure Eric will have plenty of suggestions. Don't wait to be asked just jump in there and help.

Welcome new members

Chris Spitler, David Jenson, Nicholas Jenson, Kevin Palmer, Thomas Marino, and Angela Rose Chris Spitler has taken on the 3d printers and has already upgraded some parts and made things run smoother. He has plans for more 3d printing innovations.

BELOW CLICK on Calendar to go to Bridgewire Calendar with interactive event details.

ALL MEMBERS, If you would like to add an event. Email us at info@bridgewire.org or click on the button below the calendar to schedule your event with details and contact info. The new event will be approved by an officer or director to make it show up. Your events can be any project you want to share or get help with. Add Event

Calendar