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June 2022

President's Corner

Electricity use or waste

We live in a world of inflation right now. In the past year our membership has inflated 25%. The actual number of members opening the door each day is also up significantly. But most shocking is that our NVEnergy bill is up 60%. That's almost a $200/mo. increase. This equates to all the lights being on, almost 24hrs a day. This is making a significant dent in the budget of the plans for our shop.

We need your help to drive this cost down. If you are leaving Bridgewire, always check with others to see if you may shut off the shop lights. If you are here alone, manage your light use. Always shut off equipment like the dust collector when not in use. Thanks - Eric

Bridgewire Board and Officers

Eric Bradford	Board Chair, President, Secretary	775-750-8299	ericbradford.pe@gmail.com
Ryan Bibbey	Board Member, Treasurer	775-830-5604	rbibbey@gmail.com
Lee Elliott	Board Member	612-703-4226	sendleemail@gmail.com
Mark Pipes	Board Member	702-532-6450	mark.pipes@scientificgames.com
Loren Montague	Board Member	925-864-7506	themontashu@gmail.com
OPEN POSITION	Education Officer		
OPEN POSITION	Facility Officer		
OPEN POSITION	Marketing Officer		
David Heit	Membership Officer	775-342-8686	oldblue6bt@gmail.com

Contact one of the above if you have questions or comments. Please also find an opportunity to thank them for their service to Bridgewire!

TASKS THAT NEED TO GET DONE REGULARLY

Additionally, our community needs everyone to get involved and help run the place. The alternative is we will need to raise rates and hire services. **Are you helping with any of the following items?**

Claim one with your name _____ on the copy on the bulletin board.

1. Gov – perform role of President **Eric B.**
2. Gov – perform role of Treasurer **Ryan B.**
3. Gov – perform role of Secretary **Eric B.**
4. Gov – perform role of Facility Officer _____
5. Gov – perform role of Education Officer _____
6. Gov – perform role of Membership Officer **David H.**
7. Gov – perform role of Marketing Officer _____
8. Tres – Perform QuickBooks bookkeeping **Outsourced**
9. Tres – Manage Budgets _____
10. Tres – Prepare Annual Financial statements **Ryan B.**
11. Sec – Manage and safeguard all Bridgewire records **Eric B.**
12. Sec – File legal and regulatory documents **Eric B.**
13. Sec – Record meeting minutes **Eric B.**
14. Sec – Maintain Office supplies of paper, pens, batteries, labels, printer inks, etc. **Eric B.**
15. Sec – Maintain Office supplies of toilet paper, paper towels, cleaning supplies **Eric B.**
16. Sec – Maintain Office supplies of Kitchen utensils, plates, cups, etc. **Eric B.**
17. Fac – Woodshop, Dust collection, Check small vacuums before each use_____
18. Fac – Woodshop, Dust collection, Check central vacuum before each use _____
19. Fac – Woodshop, Dust collection, Check and empty table saw cyclone _____
20. Fac – Sweep floor electronics Lab _____
21. Fac – Paint Booth – replace filters regularly _____
22. Fac – Paint Booth – Replace paper and cardboard walls and wipe down _____
23. Fac – Flam Cabinet – Sort out old paint, solvents, and adhesive for recycling _____
24. Fac – Woodshop curtains-wipe down_____
25. Fac – Woodshop overhead air filter, clean or replace filter _____
26. Fac – Woodshop sort wood remnants and trash unusable mat'ls and sizes _____
27. Fac – Laser sort through remnants and cut down to usable rectangles _____
28. Fac – Kitchen, Clear out Refrigerator at 1st of every month _____
29. Fac – Kitchen, Clean oven, toaster, and microwave as needed _____
30. Fac – Kitchen, Vending machine, purchase and maintain stock items **Wesley M.**
31. Fac – Kitchen, Clean counters, fixtures, and mop floor_____
32. Fac – Restroom, Clean Star wars bathroom fixtures and mop floor _____
33. Fac – Restroom, Clean Calvin and Hobbes bathroom fixtures and mop floor _____
34. Fac – Media Room, wipe down tables and vacuum before every open house _____
35. Fac – Empty all 30+ shop trash cans into main trash cans on Thursdays_____
36. Fac – Metal Shop, thoroughly clean drill press and bandsaw of chips _____
37. Fac – Metal Shop, clean lathe pan of metal scrap shavings _____
38. Fac – Weld shop, grinding corner clean up dust and reface the wheels _____
39. Fac – Tools, maintain Battery powered tools and batteries _____
40. Fac – Tools, maintain full sets of all metal and wood drills and cutter bits _____

41. Fac – Fasteners – regularly organize, consolidate, and purge _____
42. Fac – Computer, maintain all computers with upgrades/software updates _____
43. Fac – Asset Mgmt. _____
44. Fac – Lease Mgmt. _____
45. Edu – Teaching a class in electronics _____
46. Edu – Teaching a class in wood shop _____
47. Edu – Teaching a class in welding _____
48. Edu – Teaching a class in machine shop _____
49. Edu – Teaching a class in laser _____
50. Edu – Teaching a class in 3D printing _____
51. Edu – Class development and quality control _____
52. Mktg – Website management _____
53. Mktg – Social media management _____
54. Mktg – Promotional material generation and placement _____
55. Mktg – Event coordination _____
56. Mktg – Brand management _____
57. Mmbr – Teach class in New Member Orientation **David H.**
58. Mmbr – Create SWAG for New Member Orientation **David H.**
59. Mmbr – Manage member database **Eric B.**
60. Host – Open house host and tours **Mark P., David H., Eric B. + _____.**

Contribute Cash (without spending extra money)

If you are purchasing something from Amazon, go to smile.amazon.com instead of amazon.com, and select Bridgewire to support. It doesn't cost you anything, and benefits Bridgewire with a portion of your purchase price.

Member's Activities

We need Bridgewire member's input for this section. Email to davidwjenson@gmail.com a short or long note about something interesting you are doing using Bridgewire facilities.

Craig Bergland

At one time there was a bit of brewing going on at Bridgewire. This included making beer, wines and mead. If you are interested in restarting this, and perhaps doing a monthly 'Winemaking Wednesday', please email me at 'cobergland@gmail.com.'

There are enough gallon bottles, yeasts, etc. on hand to do several kinds of wine, and if anyone knows beer, that could be good fun.

Number of Members

Have you wondered how many of us there are? Before the pandemic hit, Bridgewire had 80 members. During the pandemic that dropped to 66 members. **Now we haver 100 members**. Way to go! Pass the word.

Bridgewire Activities

Cleanup and Maintenance Day

A successful cleanup and maintenance day was held Saturday, May 11, hosted by Lee Elliott. Most of the items on the long list of tasks were handled by those who attended. Many thanks for those who came. We still have items that need to be completed. **The next session is scheduled for Sunday, June 12, 9-12 am**. Please reserve the date to help us get closer to completing our task list.

Our president, Eric Bradford, climbing the ladder for Bridgewire

Lee Elliott asks, 'Is this anything we ever use?'

David Heit takes a break

Lee Elliott finds strange things under the sink

INVENTOR'S CORNER

Did you know we have some patented inventors amongst us? Here we are going to periodically highlight some of them.

Arnie Schultz

Arnie is from Norway, where he was a very well known guitarist. Many years ago he came to the United States. He spent over 30 years in the music industry in Southern California. He became an expert in music sampling and toy sound effects, designing sound libraries for the new digital age. It is not surprising then that his inventions involved musical instruments. He has three patents covering features of electronic percussion and other musical instruments.

Arnie likes woodworking and electronics, and has built 30 to 35 guitars. At Bridgewire he is learning about CAD, the 3D printers and all the other machines. Besides all the learning opportunities, Arnie is particularly grateful for the chance to meet other people at Bridgewire who can help him with his projects.

Bridgewire Inventors Meeting

Every third Tuesday the Bridgewire inventors meeting is held at 4:30 to 6:30 pm. This is a joint ZOOM meeting with the Inventors Center of Kansas City. Each time there is an expert speaker on some topic of importance to inventors, then general discussion.

On May 17 the group had a speaker from the Patent and Trademark Office (TPO). This speaker is an employee of the PTO whose job is to educate the public on the PTO resources available to the general public. There are some new search tools available for online patent searching. The PTO has Investors Assistance Centers and works with Law School Patent Clinics. There is even a Patent Pro Bono (free)Program.

By the way, did you know that the PTO is entirely supported by user fees, it gets no government funds.

After the presentation from the PTO, there was another presentation on the importance of taking into account the cost of shipping a new product while initially designing the product.

Facilities Updates

Crafting Table – Recently we build an adjustable height table with locking wheels. The table height can be adjusted to support sitting or standing projects. The 98" x 37" table has folding wings so that it can easily fit through any doorway to all parts of the shop. This table has 2 large removable cutting mats to support future crafting and sewing activities.

Wood Shop Table Top – Recently Brendan and Justin replaced the old uneven table top with a new flat top. They added T-slots for clamps to hold your work while you perform lite work on it. NOTE: The clamps are for holding: not high force clamping. Almost everyone mistakenly thinks that the limit of your strength to tighten a clamp is acceptable. This is wrong. When you overtighten beyond the strength of the clamp, you destroy the clamp and you should replace what you damage. It's your duty as a member to do the right thing.

Table Saw Repaired – Recently one day the table saw just stopped working. An extensive trouble shooting analysis ultimately discovered that the cause was a dragging power ON switch and dirty contacts in the thermal protection circuit. Amazingly, this was fixed without having to buy any new parts. It just cost about 8 frustrating man-hours.

Reduced Time on FREE tables – Due to the increased activity in the shop and many more member projects happening at the same time the amount of time you are allowed to use a FREE table is reduced to 4 weeks. If you are currently using one of these tables please check your table and remove your project if past 4 weeks. There are rental spaces and tables available to rent.

Asphalt Cleaning – Note the before and after pictures. Please do not brush off the grey bio oil absorbent. It will eat the oil and naturally blow away. This process and material is very expensive and costing us hundreds of dollars.

Recently, our property manager asked us to clean up the oil spots in our parking area. While this may seem unreasonable, we want to be a good tenant and do everything they request as we are paying less than market value rent. The less interaction we have with the property manager the better it is for us.

For those of you with oil or transmission fluid leaking from your car we may be implementing a policy or fee in the near future to offset the extra cost of addressing oil stains. Stay tuned.

MEMBER RESPONSIBILITIES

WHO DUNNIT?

Inspector Policy is our house detective. He is always on duty looking for rules violations which disrupt the peace and fair maker environment. He lives by the maker credo "Be Excellent to each other". Each month he will ask for your help to identify a rules violator.

THIS MONTH'S CASE: "The Full Diaper"

Bridgewire was founded on one core rule.

Be Excellent to each other.

Part of being excellent is cleaning up and putting everything away and back to its proper place of storage for the next person to use. Your work area and tools should be as clean if not cleaner than you found it. In just the last few weeks Inspector Policy has seen repeated violations of this common courtesy. Let's put it in mathematical terms.

(Total Time at Bridgewire) - (Time working on your project) = (Time to fully clean up your mess and put things away)

Inspector Policy was called in to ask you this question. Did you leave this full diaper in the shop?

- Drill press with drill still installed. Chips everywhere and drill set left out.
- Putty knife covered in epoxy or some other glue. Not sure if we can recover this knife.
- Router table bit left in the router and not put away in the router bit set. If someone want to use the router they have to start by cleaning up your mess. Really?
- Spindle sander with lock nut driven into the rubber without the washer to evenly distribute the load. The rubber mandrel is now compromised and will probably need to be replaced prematurely.

Signed: Inspector Policy

EQUIPMENT USE AUTHORIZATION

For the safety of Bridgewire members and survival of our equipment, you must be authorized to use certain equipment at Bridgewire.

The following pieces of equipment are labelled with a sign like this:

Metal Lathe	Milling Machine
Sherline CNC Mill	Bridgewire Laser
CNC Router	GRIZZLY Wood Lathe
Carba-Tex Wood Lathe	Table Saw

Attending the open house shop safety and use class is the first step, but must be followed with a designated class for that equipment followed by individual check out by the instructor. If there is no designated class for that equipment currently available, consult with the instructor of the open house shop safety and use class for the appropriate shop.

The MIG and TIG welders only require the shop general class.

You may wish to consult the following:

Wood Shop	Roman Hruska,
Welding	Lee Ellliott
CNC	Eric Bradford
Cold Metal Shop	Chet Stites

Use of all of the other equipment in a particular shop requires attendance at a safety and use class for the that shop.

EDUCATION HAPPENINGS

All the Ways You Can Learn

Are you confused by all the ways to learn at Bridgewire? Let's review them.

First are the Bridgewire general open houses. Especially designed for new or prospective members. Every Thursday evening from 6:30 to 7:00.

Every Thursday one of the shops has a safety and use class. You learn the safe use of the basic equipment in the shop. Come for the overview or come for a refresher on particular equipment. Consult the calendar and be sure to contact the instructor ahead of the class.

There are several informal groups that meet periodically. For instance:

- Inventors Group
- Embedded Systems Group
- Beer and Wine Making

Special classes run by instructors from Bridgewire. These classes require payment of a fee and may consist of more than one session. Currently available classes are as follows:

- General CNC Fabrication
- 3D CAD
- Bridgewire Laser Cut and Etch Basics

Classes run at Bridgewire under the auspices of TMCC. Sign up is through the TMCC EPIC program and requires payment of a fee. Currently there is one:

- TMCC Knife Making Class

If you want help with a particular piece of equipment, we suggest you come to the appropriate shop specific open house. Be sure to contact the instructor, as listed in the calendar, ahead of time and tell him or her what you are interested it.

New Bridgewire Classes and Workshops

We are looking to have members create and teach classes of their own. All Bridgewire classes will charge a fee of $15/hr. per student. If a materials fee is required it can be added to the total cost. The instructor will receive 50% of the class fee from Bridgewire. The class must be listed on our calendar no less that 30 days before the class. The instructor determines class length in hour increments and the min and max number of students required. Talk to Eric to get a class template and learn more.

MEMBER'S MATERIALS IN THE WOODSHOP

The Active Project Material Storage is for members to store material for active projects. Each individual piece must be labelled with blue tape and your name. Even if you group pieces together with blue tape, you must also label each individual piece in the group with blue tape and your name.

One of the pictures below shows all the unlabelled wood that was removed from this area at the last cleanup event.

The last picture shows where you can put unused, but usable, wood for anyone to use.

Material Storage

1. How to use this space

This space is for storage of member's raw woodshop materials.

1.1. The materials must be for active or imminent projects.
1.2. Each piece must be labeled with your name and start date of storage. (use tape and pen)
1.3. Only materials which are used on woodshop equipment may be stored here.
1.4. You are not allowed to store woodshop raw materials anywhere else in the shop.

2. Down sides of this space

2.1. No long term storage of materials is allowed. (Over 6mo.)
2.2. All materials are at risk of being damaged.
2.3. Unlabeled materials may be deemed donations and moved to the community wood pile.
2.4. No reclaimed wood is allowed in the shop unless you use your own cutting blades to cut and plane the material.

Active Project Material Storage

Unlabelled Material

Usable Scrap

Want or Surplus?

What do you have taking up space that you no longer want or need that you are willing to either sell or give away free? Conversely, what do you need for one of your projects that you think another Bridgewire member might have or know where to get?

Email me the information at davidwjenson@gmail.com and I will post it here.

You can also take any kind of electronics or electrics to New2U Computers at 50 E Greg St., #103, Sparks. Depending on the items, they will refurbish for use by others or recycle responsibly.

Helpful Vendors

Do you have a favorite vendor for the kinds of things Bridgewire members need? Let me know and I will post the information here. Tell me what you like about them. Here are just a few to start things off.

Mastercraft Hardwood Lumber Inc.	1460 Linda Way, Sparks	775-356-1772	Ordinary and Exotic hardwoods
Johnson Bearing and Supply	515 Vista Blvd, Sparks	775-359-1049	Bearings and rollers
Reno Salvage	301 Montello St, Reno	775-323-7109	Recycle metal available

Final Notes

Clean up for the cleaning crew?

We're back! and strict hygiene rules are in place. It's important that we pay attention to our workspace and be sure to consider the other members who come after us. Bridgewire's industrial cleaning service will again be doing a terrific job of keeping the shop tidy, safe and dust free. We can all help them focus on the deep cleaning aspects of their job by keeping work areas organized and sanitized and cleaning up after ourselves. 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. This service frees us to spend more time on infrastructure issues. There's plenty of need for repair and maintenance of the tools and equipment.

New and returning Members May 2022

Kevin K., Elaina C., Joe O., Ron D.

Welcome to Bridgewire and we hope you find the organization inviting and fun.

Bridgewire Calendar

BELOW Click on “Calendar” to go to the Bridgewire calendar with interactive event details.

Thu, Jun 2	Open House Night (6 pm - 9 pm) Welding and Plasma Cutting (7 pm - 9 pm)
Tue, Jun 7	TMCC Knife Making Class (series) (6 pm - 9 pm)
Thu, Jun 9	Open House Night (6 pm - 9 pm) TMCC Knife Making Class (series) (6 pm - 9 pm) Sheet Metal and Machine Shop (8 pm - 9 pm)
Sat, Jun 11	Bridgewire Laser Cut & Etch Basics (9 am - 11 am)
Sun, Jun 12	All members - shop clean and maintenance day (9 am - 12 pm)
Tue, Jun 14	Flag Day TMCC Knife Making Class (series) (6 pm - 9 pm)
Thu, Jun 16	Open House Night (6 pm - 9 pm) TMCC Knife Making Class (series) (6 pm - 9 pm) Wood Shop (6:05 pm - 8:05 pm)
Sat, Jun 18	3D CAD - Fusion360 (Basic Modeling) (9 am - 1 pm)
Sun,	Father's Day

Jun 19

Mon, Jun 20

General CNC Fabrication (6 pm - 9 pm)

Tue, Jun 21

Inventors Meeting (4:30 pm - 6:30 pm)

TMCC Knife Making Class (series) (6 pm - 9 pm)

Thu, Jun 23

Open House Night (6 pm - 9 pm)

TMCC Knife Making Class (series) (6 pm - 9 pm)

Sat, Jun 25

BB&BS Event (9 am - 1 pm)

Tue, Jun 28

Embedded System Group (ESG) (6 pm - 8 pm)

TMCC Knife Making Class (series) (6 pm - 9 pm)

Thu, Jun 30

Open House Night (6 pm - 9 pm)

TMCC Knife Making Class (series) (6 pm - 9 pm)

Full event list

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