Week 8: Electronics Production

- regional meeting
- prep meeting
- global class
- global class chat
- Safety
- local class

regional meeting

Forrest Oliphant

no website yet
FreeCAD design for a TV-table
slight problems with model-stability when changing parameters AR-with reality converter; USDC format for direct preview on iPhone

The sagulator for "sag" calculation

Recontech 1312 CNC

Dylan Heneck

Where to throw the laser when it burns:





V-Carve offsets: 

Patrick Dezséri



https://fabacademy.org/2025/labs/waag/Participants/interns/

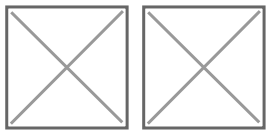
Sam Hos



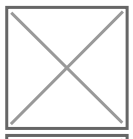
Irja Linnerud

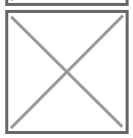


Jakob



Mkhitar Evoyan





Dora Taşcı



Zhirayr Ghukasyan



Yerlan Turgenbayev



prep meeting

PCBs with X-1 works good, also for cutting and drilling

KICAD Gerber to fabmodules
I2S Microphones

Chat

13:33:58 Von ferdi an Alle: Can it cut holes and outline?

13:34:03 Von ndcoster an Alle: I got mine but wasn't brave enough to test it yet.

13:34:25 Von ferdi an Alle: Awesome!

13:35:50 Von saheen palayi an Alle: https://git.fablabkerala.in/midlaj/gerber2png/-/wikis/home

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here is the wiki
Svavar Konradsson Fab Lab Isafjordur, henk, Krisjanis Rijnieks:□□
Pablo Fab Lab Leon:□□
Adrián - Fab Lab León, Lars Mattern - HRW Fablab, Frosti Gíslason - Iceland- Vestmannaeyjar -
Fab Lab:□□
```

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13:47:26 Von saheen palayi an Alle: 20250312_181133.jpg Nuria Robles | LEON:□ Adrián - Fab Lab León, Pablo Fab Lab Leon, Ricardo Marques, Svavar Konradsson Fab Lab Isafjordur:❤ henk:❤□□

13:47:43 Von Frosti Gíslason - Iceland- Vestmannaeyjar - Fab Lab an Alle: https://inventory.fabcloud.io/?purpose=Output%20Devices

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13:51:44 Von Claire - Lake Mac Libraries Fab Lab an Alle: I figured out how to export SVG from kicad 9 Marius Araújo:□□

13:52:35 Von Adrián - Fab Lab León an Alle: Replying to "I figured out how to export SVG from kicad 9": You need to export as Gerber and them use this: https://git.fablabkerala.in/midlaj/gerber2png/-/wikis/home

13:53:48 Von Fab Lab Barcelona an Alle: How?

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13:53:22 Von Marius Araújo an Alle: Replying to "I figured out how to export SVG from kicad 9": Great!!

13:53:30 Von Claire - Lake Mac Libraries Fab Lab an Alle: Replying to "I figured out how to export SVG from kicad 9": Screenshot 2025-03-12 235210.png

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13:55:00 Von henk an Alle: Replying to "I figured out how to export SVG from kicad 9": resolution is not workable Miriam:□□

13:55:17 Von Andri Sæmundsson - Fab Lab Reykjavik an Alle: You can also in pcb editor do File - Fabrication Output - Gerber and change format to SVG Marius Araújo, Pablo Fab Lab Leon, Adrián - Fab Lab León:□□

13:56:44 Von Aalto Fablab an Alle: or gerber to flatcam or coppercam Ricardo Marques:□□

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13:58:32 Von Shintaro Ito : Node japan kannai an Alle: It's the beginning of a good time! I'm a little glad it's daylight savings time.□□ (It's currently 10pm in Japan.) Adrián - Fab Lab León, Marius Araújo, Tshering Wangzom JNWSFL bhutan:❤ Miriam, Hiroe Takeda:□□

global class

Damian Polo (not present)

Saul (not present)

Abin Mathew



Saúl Adair Jarquin Ramos

page does not exist

Elle Hahn



Olof Hannesdottir



Ofelia Sevilla

Gillian Cote



José Carlos Matanzo Pérez



Open MV CAM
Nervous lamp: https://fabacademy.org/2019/labs/waag/students/rutger-oomkes/projects/final-project/

https://fabacademy.org/2019/labs/waag/students/rutger-oomkes/projects/final-project/

https://fabacademy.org/2024/labs/waag/RUPEV/rupev.mp4

Akash Edamana







https://en.wikipedia.org/wiki/Birds_Aren%27t_Real

https://nq.cba.mit.edu/quentinbolsee/open-frame-scan

Shintaro Ito



Jóhannes Andrésson



Evelyn Cuadrado



Koharu Takeda



Mkhitar

Andrew Mark


Nesting in Fusion


Shoko Kudomi



Carl Mcateer



Ancy Roshan



Magnús Pétursson



global class chat

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13:59:42 Von Adrián - Fab Lab León an Alle: Replying to "some issues :- mods converting the svg again to pn...": With SVG, you had to open it in Inkscape and change the format. I use GIMP, convert the SVG to PNG, and set the resolution to 1000 DPI.

13:59:46 Von Aalto Fablab an Alle: Replying to "hisar lab has a new machine that has software that...": cant find. perhaps something to go on todo list

14:00:43 Von Adrián - Fab Lab León an Alle: Replying to "hisar lab has a new machine that has software that...": Yeah, is only to image to gerber

14:01:09 Von Aalto Fablab an Alle: I actually wonder if anybody looked at kicad-cli possibilities in terms of exporting svg

14:01:19 Von Claire - Lake Mac Libraries Fab Lab an Alle: Converting to 1000ppi resolution png, it looks like it comes out fine in mods

14:01:31 Von Tshering Wangzom JNWSFL bhutan an Alle: Replying to "some issues :- mods converting the svg again to pn...": I have been using svg that i export from kicad and has been working since last month. But i faced problem when i use plot to get svg. Is the issue recent ?

14:01:44 Von Aalto Fablab an Alle: if the cli side has it, one could produce an addon

14:01:50 Von Ricardo Marques an Alle: Replying to "some issues :- mods converting the svg again to pn...": something changed with v9

14:02:12 Von Adrián - Fab Lab León an Alle: Replying to "some issues :- mods converting the svg again to pn...": KiCAD 7 and 8 Works, not in 9 Tshering Wangzom JNWSFL bhutan:□□

14:02:41 Von saheen palayi an Alle: Replying to "some issues :- mods converting the svg again to pn...": Yea we used to do this , this is also the one of the reason to make the one click solution to get png (gerber2Png) Adrián - Fab Lab León:□□ Tshering Wangzom JNWSFL bhutan:□□

14:02:46 Von Adrián - Fab Lab León an Alle: Replying to "Converting to 1000ppi resolution png, it looks lik...": But with GIMP?

14:03:18 Von Claire - Lake Mac Libraries Fab Lab an Alle: Replying to "Converting to 1000ppi resolution png, it looks lik...": Illustrator Adrián - Fab Lab León:□□

14:03:43 Von Charlotte Latin an Alle: Neil our student will be here in 5 min

14:04:05 Von Charlotte Latin an Alle: Latins will be here in 5 min

14:04:28 Von Charlotte Latin an Alle: ok

14:04:40 Von Rico Kanthatham an Alle: Go Abin!!! saheen palayi:□□

14:05:20 Von Claire - Lake Mac Libraries Fab Lab an Alle: Replying to "Converting to 1000ppi resolution png, it looks lik...": I'll test in inkscape

14:05:35 Von saheen palayi an Alle: Replying to "Converting to 1000ppi resolution png, it looks lik...": it works with photopea

14:08:29 Von Aalto Fablab an Alle: Nice power extension Lars Mattern - HRW Fablab, Adrián - Fab Lab León, Dorji Gyeltshen, JNEC bhutan, ihlin, saheen palayi, Dylan:□□ Saverio Shanghai:□□

14:08:48 Von Aalto Fablab an Alle: I want one Adrián - Fab Lab León, Pablo Fab Lab Leon:□□

14:09:18 Von Aalto Fablab an Alle: I mean the chair is great, of course, don't get me wrong! Adrián - Fab Lab León:□□ Patrick-Waag:□□

14:09:30 Von Aalto Fablab an Alle: I want one of the chairs too

14:10:56 Von Adrián - Fab Lab León an Alle: Replying to "I want one of the chairs too": The chair and the power extensión hehehe saheen palayi:□□

14:13:06 Von Evert Stefán Jensson an Alle: Replying to "I want one of the chairs too": combined it will be electrical chair Patrick-Waag:□□ Pablo Fab Lab Leon, Adrián - Fab Lab León, Lars Mattern - HRW Fablab, Mkhitar Evoyan:□□

14:14:31 Von saheen palayi an Alle: Replying to "I want one of the chairs too": @Adrián - Fab Lab León we borrowed from IT department □□, it was used for server racks

14:14:39 Von Ricardo Marques an Alle: not documenting as you go is both a good way to having to do things twice but also na amazing way to become a returning student next year :p Pérez De La Mora Daniel Alejandro, saheen palayi, Rico Kanthatham, Svavar Konradsson Fab Lab Isafjordur, Jani Ylioja:□□

14:15:49 Von Rico Kanthatham an Alle: Replying to "not documenting as you go is both a good way to ha...": Ask Ricardo how he knows...□□ Adrián - Fab Lab León, Marius Araújo:□□

14:16:13 Von Ricardo Marques an Alle: Replying to "not documenting as you go is both a good way to ha...": hey I documented as I go, I only did things once... :D I just didn't put it online xD Patrick-Waag, Evert Stefán Jensson:□□

14:16:34 Von Claire - Lake Mac Libraries Fab Lab an Alle: Replying to "Converting to 1000ppi resolution png, it looks lik...": hmmm, when I try inkscape it doesn't work for png

14:16:51 Von Adrián - Fab Lab León an Alle: Replying to "not documenting as you go is both a good way to ha...": No comments □□ Rico Kanthatham:□□

14:16:53 Von Rico Kanthatham an Alle: Replying to "not documenting as you go is both a good way to ha...": "if a tree in a forest falls, but there is no one around...does it make a sound?" Patrick-Waag, Claire - Lake Mac Libraries Fab Lab, Adrián - Fab Lab León:□□ Ricardo Marques, Patrick-Waag:□□

14:17:43 Von Miriam an Alle: Replying to "not documenting as you go is both a good way to ha...": 20250312221739000.jpg Ricardo Marques, Norella Coronell, Adrián - Fab Lab León, Svavar Konradsson Fab Lab Isafjordur, Forrest O.:❤ Patrick-Waag:□□

14:18:28 Von Adrián - Fab Lab León an Alle: Replying to "Converting to 1000ppi resolution png, it looks lik...": Try GIMP

14:20:02 Von Adrián - Fab Lab León an Alle: Nice job Elle!!

14:20:02 Von Pablo Fab Lab Leon an Alle: Super!

14:21:03 Von Marius Araújo an Alle: Replying to "Converting to 1000ppi resolution png, it looks lik...": Inkscape: open svg, edit what you need; file: export. Up the dpi, select format etc. works

14:24:13 Von Pablo Fab Lab Leon an Alle: sensing from one side to the other of a glass dont seems so trivial. Few sensros can sens through a glass.

14:24:33 Von Jani Ylioja an Alle: I've been wanting one of those magic mirrors for years! Adrián - Fab Lab León:❤

14:24:52 Von Svavar Konradsson Fab Lab Isafjordur an Alle: Go Ólöf! Ricardo Marques, Adrián - Fab Lab León, andri-fab lab reykjavik:□□

14:25:06 Von Rico Kanthatham an Alle: Replying to "I've been wanting one of those magic mirrors for y...": "mirror, mirror on the wall. who is the most..." Adrián - Fab Lab León, Patrick-Waag, Marius Araújo, Claire - Lake Mac Libraries Fab Lab:□□

14:25:18 Von Þórarinn Bjartur Breiðfjörð Gunnarsson an Alle: You can do it Ólof

14:25:27 Von Justyn Woods an Alle: can you guys see me on camera. Im using my phone fir zoom rather than my kaptop

14:25:37 Von Evert Stefán Jensson an Alle: i have been there

14:25:56 Von Miriam an Alle: Replying to "I've been wanting one of those magic mirrors for y...": It’s touch, so you can always swipe left Lars Mattern - HRW Fablab, Jani Ylioja, Ricardo Marques, Patrick-Waag, Claire - Lake Mac Libraries Fab Lab:□□ Adrián - Fab Lab León, Rico Kanthatham:□□

14:26:32 Von Þórarinn Bjartur Breiðfjörð Gunnarsson an Alle: Neskaupstaður and Ísafjörður are basically on the opposite from one another

14:26:33 Von Svavar Konradsson Fab Lab Isafjordur an Alle: Neskaupstaður is really nice and quiet; it's so interesting to see that all the lava layers in the mountains are slanted because of the Ice age glacier that weighed down the middle of Iceland Rico Kanthatham, Adrián - Fab Lab León, Þórarinn Bjartur Breiðfjörð Gunnarsson, Pablo Fab Lab Leon, Frosti Gíslason - Iceland- Vestmannaeyjar - Fab Lab:□□

14:26:35 Von Adrián - Fab Lab León an Alle: Replying to "can you guys see me on camera. Im using my phone f...": Yes but you need to swith on your camera

14:26:59 Von Þórarinn Bjartur Breiðfjörð Gunnarsson an Alle: www.fablab.is

14:27:39 Von Adrián - Fab Lab León an Alle: Replying to "can you guys see me on camera. Im using my phone f...": Now yes

14:30:08 Von Adrián - Fab Lab León an Alle: Yeah Spiral Development!! Claire - Lake Mac Libraries Fab Lab, Rico Kanthatham, Jeremy Losaw:❤

14:30:18 Von Adrián - Fab Lab León an Alle: Replying to "Yeah Spiral Development!!": Rico´s drwaing

14:30:22 Von Adrián - Fab Lab León an Alle: Replying to "Yeah Spiral Development!!": Drawing

14:31:13 Von Rico Kanthatham an Alle: Ok...definitely want one of these!! Rico Kanthatham, Patrick-Waag, Ricardo Marques, Claire - Lake Mac Libraries Fab Lab, Miriam:□□

14:31:30 Von Adrián - Fab Lab León an Alle: Replying to "Neskaupstaður and Ísafjörður are basically on the ...": {A1381766-3404-4B17-B90C-78F71B7FA94A}.png

14:32:56 Von ferdi an Alle: https://i.pinimg.com/originals/9d/fe/9f/9dfe9f603ae9df280fd2dbe21978fddc.png Patrick-Waag:□□ Patrick-Waag:□□

14:33:12 Von Svavar Konradsson Fab Lab Isafjordur an Alle: I love the mini version of the whale final project

14:33:14 Von Rico Kanthatham an Alle: Replying to "Ok...definitely want one of these!!": Love it Olof!!! olof:❤

14:33:25 Von Saverio Shanghai an Alle: are those whale travel data open and accessible?

14:33:38 Von Saverio Shanghai an Alle: so cool

14:33:58 Von Rico Kanthatham an Alle: how about that mini skateboarder diorama project from a few years ago? olof:□□

14:34:12 Von Adrián - Fab Lab León an Alle: Replying to "how about that mini skateboarder diorama project f...": https://fabacademy.org/2021/labs/plusx/students/jonny-

timms/presentation.mp4 Rico Kanthatham, Svavar Konradsson Fab Lab Isafjordur:□□

14:34:13 Von Pablo Fab Lab Leon an Alle: Replying to "Ok...definitely want one of these!!": I bet 1$ more...

14:34:21 Von Claire - Lake Mac Libraries Fab Lab an Alle: Replying to "Converting to 1000ppi resolution png, it looks lik...": I couldn't get GIMP to work, but could be because this is the first time I've used it □□ Adrián - Fab Lab León:□□

14:34:52 Von Rico Kanthatham an Alle: Replying to "Ok...definitely want one of these!!": ...oooh. Big spender!

14:34:53 Von Adrián - Fab Lab León an Alle: Replying to "how about that mini skateboarder diorama project f...": Check this Project Olof https://fabacademy.org/2021/labs/plusx/students/jonny-timms/finalproject.html olof:❤

14:36:25 Von Miriam an Alle: If it is. Whale’s journey then what about haru SAN’s project?

14:37:21 Von Adrián - Fab Lab León an Alle: Replying to "If it is. Whale’s journey then what about haru SAN...": Yes another one https://fabacademy.org/2020/labs/kamakura/students/hideo-oguri/projects/final-project/

14:37:30 Von Miriam an Alle: Replying to "If it is. Whale’s journey then what about haru SAN...": 20250312223725.png

14:38:33 Von Claire - Lake Mac Libraries Fab Lab an Alle: Replying to "If it is. Whale’s journey then what about haru SAN...": Or just go big and make a giant whale like Bartholomew □□ https://fabacademy.org/2023/labs/singapore/students/bartholomew-ting/final-project.html olof:□□ Adrián - Fab Lab León:□□

14:41:05 Von olof an Alle: Yes, the whale´s data is accessible through this website: https://nammco.no/ Adrián - Fab Lab León, Lars Mattern - HRW Fablab:□□

14:41:23 Von olof an Alle: https://fabacademy.org/2025/labs/isafjordur/students/olof-hannesdottir/filesFinalProject/Iceland_modeled.html Svavar Konradsson Fab Lab Isafjordur, Adrián - Fab Lab León:□□

14:42:46 Von Aalto Fablab an Alle: let me know if you want to have recitation. they are from the same school I studied at. I studied together with the guy who made the visual effects Adrián - Fab Lab León, Marius Araújo, Lars Mattern - HRW Fablab:❤ Svavar Konradsson Fab Lab Isafjordur, Patrick-Waag:□□ maxime:□□ Ricardo Marques:□□

14:43:00 Von Rico Kanthatham an Alle: blender...woo hoo! Claire - Lake Mac Libraries Fab Lab:□□ Adrián - Fab Lab León:□□

14:43:53 Von Casimir Maksymowicz an Alle: You could try something with elastics

14:44:00 Von Rico Kanthatham an Alle: frisbee launcher rom Charlotte last year?

14:44:21 Von Patrick-Waag an Alle: air pressure ?

14:44:28 Von Svavar Konradsson Fab Lab Isafjordur an Alle: Easter egg launcher from Waag: https://fabacademy.org/2023/labs/waag/machine-design/ Adrián - Fab Lab León:❤

14:44:32 Von henk an Alle: https://fabacademy.org/2023/labs/waag/images/de-legbatterij.mp4

14:44:40 Von Adrián - Fab Lab León an Alle: Air plane launcher https://fabacademy.org/2023/labs/egypt/students/mohamed-tarek/final-project.html

14:44:52 Von Rico Kanthatham an Alle: "CAT"-apult. □□ Enterprise fablab:□□ Aalto Fablab, Patrick-Waag, Pablo Fab Lab Leon, Ricardo Marques, Claire - Lake Mac Libraries Fab Lab, Daniel Osika, Lars Mattern - HRW Fablab, Jorge Valerio - ESAN, Adrián - Fab Lab León:□□

14:44:56 Von Ricardo Marques an Alle: spinning wheels like the baseball and tennis ball laucnhers may be the most manageable

14:45:21 Von Charlotte Latin an Alle: we have launc hed footballs, flying disks, and tennis balls using spinnnng wheels

14:45:23 Von Amr Yasser an Alle: Jakelaser web shooter it would be great for this project

14:45:30 Von Rico Kanthatham an Alle: Replying to ""CAT"-apult. □□": the final project is not done...but the name is locked down! Adrián - Fab Lab León, Patrick-Waag, Claire - Lake Mac Libraries Fab Lab, Lars Mattern - HRW Fablab:□□

14:45:57 Von Noha | Fab Lab Egypt an Alle: Paper plane launcher https://fabacademy.org/2023/labs/egypt/students/mohamed-tarek/assignments/week18.html

14:45:58 Von Adrián - Fab Lab León an Alle: https://fabacademy.org/2023/labs/egypt/students/mohamed-tarek/final-project.html Rico Kanthatham:□□

14:46:12 Von Charlotte Latin an Alle: charlotte latin collin Ricardo Marques:□□

14:46:33 Von Jason Goodman (Wheaton College) an Alle: My idea (which I haven’t told Gillian about yet) is to use the windup reel to tension a spring-loaded throwing arm. So the retraction and cocking system are the same motor. Marius Araújo, Miriam, Gillian:□□□

14:46:35 Von Charlotte Latin an Alle: collin kanofskly launch flying disks

14:46:54 Von Terence Fagan an Alle: https://fabacademy.org/2024/labs/charlotte/students/collin-kanofsky/Final%20Project/

14:47:17 Von Charlotte Latin an Alle: thanks fagan Terence Fagan:□□

14:48:21 Von Jason Goodman (Wheaton College) an Alle: It’s not a dogmatic assignment, it’s a catmatic assignment! Charlotte Latin, Rico Kanthatham, Florimond Chu (FabLab SP), Claire - Lake Mac Libraries Fab Lab, Adrián - Fab Lab León:□□ Patrick-Waag:□□

14:49:11 Von Rico Kanthatham an Alle: Replying to "It’s not a dogmatic assignment, it’s a catmatic as...": anyone doing an automatic dog feeder? "Dog-matic" is open for purchase!

14:52:19 Von Dylan an Alle: Screenshot2025_03_12_145215.jpg Julian Silva, Oscar:□□ Marius Araújo:□□ Patrick-Waag, Mkhitar Evoyan, Sam, Pablo Fab Lab Leon, Claire - Lake Mac Libraries Fab Lab, Doaa El-Bess, Ricardo Marques:□□

14:53:13 Von Jason Goodman (Wheaton College) an Alle: Holding at the corners makes the wood bow too, which makes depth-of-cut difficult. You can see it bowing in the pic.

14:56:43 Von Omar Baalbaki(SK 7) an Alle: Why not use a raspberry pi or a Jetson?

14:58:13 Von Steven an Alle: Yes, Waag Amsterdam. Rutger.

14:58:14 Von Sam an Alle: Henk is on another phone call. He will be back soon

14:58:17 Von Adrián - Fab Lab León an Alle: https://fabacademy.org/2021/labs/waag/MM1/

14:59:00 Von Steven an Alle: https://fabacademy.org/2019/labs/waag/students/rutger-oomkes/presentation.mp4

14:59:24 Von Adrián - Fab Lab León an Alle: This lamp from the Waag https://fabacademy.org/2019/labs/waag/students/rutger-oomkes/projects/final-project/ Jason Goodman (he, him):❤

14:59:46 Von Saverio Shanghai an Alle: fablab beijing 2019 or 2018

15:01:01 Von Neil an Alle: http://archive.fabacademy.org/archives/2017/fablabbeijing/students/372/final_project.html#step10

15:02:16 Von ferdi an Alle: This is https://www.vigibot.com/ but I can't find the Video from agrilab.

15:03:04 Von Aalto Fablab an Alle: it do laundry? Daniel Osika:□□ Marius Araújo:□□ Patrick-Waag, Adrián - Fab Lab León, Claire - Lake Mac Libraries Fab Lab:□□

15:03:17 Von Aalto Fablab an Alle: or dishes? Claire - Lake Mac Libraries Fab Lab, Adrián - Fab Lab León:□□

15:03:54 Von Lars Mattern - HRW Fablab an Alle: It brings Coffee to the bed in the morning ?

15:04:01 Von Adrián - Fab Lab León an Alle: Replying to "or dishes?": the next versión of ChatGPT hahaha

15:04:07 Von Aalto Fablab an Alle: Replying to "It brings Coffee to the bed in the morning ?": hopefully. sometimes Adrián - Fab Lab León, Lars Mattern - HRW Fablab, Oscar:□□

15:04:31 Von henk an Alle: https://fabacademy.org/2024/labs/waag/RUPEV/rupev.mp4 REAL URBAN PIGEON EYE VIEW Claire - Lake Mac Libraries Fab Lab:❤ Adrián - Fab Lab León, Pablo Fab Lab Leon, Patrick-Waag:□□

15:04:38 Von Aalto Fablab an Alle: Replying to "or dishes?": yeah it should be their true vision indeed hehe Adrián - Fab Lab León:□□

15:04:52 Von Claire - Lake Mac Libraries Fab Lab an Alle: Replying to "or dishes?": Be careful the machines will take over □□

15:05:35 Von Ricardo Marques an Alle: yes it was

15:05:39 Von Omar Baalbaki(SK 7) an Alle: □□

15:05:46 Von Jason Goodman (Wheaton College) an Alle: Replying to "This lamp from the Waag https://fabacademy.org/201...": I just love the personality and expressiveness of its movements. A beautiful project, with some amazing physical animation.

15:05:56 Von Claire - Lake Mac Libraries Fab Lab an Alle: Jaryd made an omni wheel robot last year https://fabacademy.org/2024/labs/lakemac/students/jaryd-giesen/final-project/

15:06:15 Von Aalto Fablab an Alle: Replying to "or dishes?": i am quite sure they wont

15:06:36 Von Ricardo Marques an Alle: Replying to "or dishes?": they can take over doing the dishes for now Claire - Lake Mac Libraries Fab Lab, Aalto Fablab:□□

15:06:47 Von Adrián - Fab Lab León an Alle: From Kerala

15:06:54 Von Aalto Fablab an Alle: Replying to "or dishes?": yeah that. always!

15:07:39 Von saheen palayi an Alle: https://akash-edamana-2f0181.fabcloud.io/Template/Week_7.html

15:07:41 Von Ricardo Marques an Alle: that was the default, gitlab changed something. it creates unique domains. Julian had to make a script to fix everything. this repo was likely generated after that

15:07:43 Von henk an Alle: ticked the wrong box in pages

15:07:58 Von saheen palayi an Alle: no he didn't broke ,

15:08:11 Von Ricardo Marques an Alle: it's a gitlab setting that's turned on by default

15:08:21 Von Aalto Fablab an Alle: Replying to "no he didn't broke ,": maybe it is his real name indeed saheen palayi:□□ Ricardo Marques:□□

15:08:35 Von Aalto Fablab an Alle: Replying to "no he didn't broke ,": 2f0181

15:08:37 Von Jason Goodman (Wheaton College) an Alle: Replying to "https://fabacademy.org/2024/labs/waag/RUPEV/rupev....": Birds aren’t real! https://en.wikipedia.org/wiki/Birds_Aren%27t_Real Marius Araújo, Claire - Lake Mac Libraries Fab Lab:□□

15:08:56 Von Aalto Fablab an Alle: Replying to "no he didn't broke ,": I would not mind to have a name like that

15:09:20 Von Aalto Fablab an Alle: Replying to "no he didn't broke ,": hey two-f-o-one-eight-one

15:09:25 Von Aalto Fablab an Alle: Replying to "no he didn't broke ,": how do you do

15:09:38 Von Ricardo Marques an Alle: https://docs.gitlab.com/user/project/pages/#unique-domains this is the documentation related to the change that Julian sent me a while back. Marius Araújo, Frosti Gíslason - Iceland- Vestmannaeyjar - Fab Lab:□□□□

15:10:52 Von Patrick-Waag an Alle: Replying to "https://docs.gitlab.com/user/project/pages/#unique...": should we tag Julian in mattermost ?

15:12:20 Von Ricardo Marques an Alle: Replying to "no he didn't broke ,": Just like Elon's kid

15:12:48 Von Aalto Fablab an Alle: Replying to "no he didn't broke ,": ah, I thought that I don't like him anymore. there you go Ricardo Marques:□□

15:13:13 Von Aalto Fablab an Alle: Replying to "no he didn't broke ,": elon, adopt me

15:13:46 Von Jason Goodman (Wheaton College) an Alle: That’s a lovely design! I love the way it opens.

15:13:53 Von Miriam an Alle: Cool looking design

15:15:24 Von Neil an Alle: https://nq.cba.mit.edu/quentinbolsee/open-frame-scan

15:15:33 Von saheen palayi an Alle: Replying to "no he didn't broke ,": He created his account way before (mostly before everyone) that's why his link came like this , this happens last year as well with some other students . dont know why @julian

15:16:16 Von Ricardo Marques an Alle: Replying to "no he didn't broke ,": https://docs.gitlab.com/user/project/pages/#unique-domains Check this out, I talked to Julian about this a while back because lab pages were also coming up this way

15:17:00 Von Frosti Gíslason - Iceland- Vestmannaeyjar - Fab Lab an Alle: https://gitlab.cba.mit.edu/quentinbolsee/aruco-frame

15:20:24 Von Pablo Fab Lab Leon an Alle: Replying to "https://gitlab.cba.mit.edu/quentinbolsee/aruco-fra...": Thanks! i have been looking for this link. □□ Adrián - Fab Lab León:□□

15:20:40 Von Adrián - Fab Lab León an Alle: Woww Johannes!! Rico Kanthatham, Fab Lab Akureyri: □□ Frosti Gíslason - Iceland- Vestmannaeyjar - Fab Lab, Miriam, andri-fab lab reykjavik:□□

15:20:42 Von saheen palayi an Alle: Replying to "no he didn't broke ,": ha thanks @Ricardo Marques will give it a try

15:20:49 Von Shintaro Ito : Node japan kannai an Alle: It so good Fab Lab Akureyri:❤

15:20:51 Von Pablo Fab Lab Leon an Alle: WOW! Fab Lab Akureyri:❤

15:20:54 Von Jeremy Losaw an Alle: mega Fab Lab Akureyri:❤

15:21:07 Von Shintaro Ito : Node japan kannai an Alle: It is gread product Fab Lab Akureyri:❤

15:21:06 Von Svavar Konradsson Fab Lab Isafjordur an Alle: I think we will make an extra chair to have at the lab! Fab Lab Akureyri, Marius Araújo:❤

15:21:08 Von Fab Lab Akureyri an Alle: Brilliant stuff! Fab Lab Akureyri:❤

15:21:19 Von Þórarinn Bjartur Breiðfjörð Gunnarsson an Alle: Looks good, feels good and is stable. + no screws

15:21:21 Von Cristian - Fab Lab iFurniture an Alle: Wow!!

15:21:40 Von Fab Lab Akureyri an Alle: Pablo, he's taking orders right now! 6 or 12 pcs ? Adrián - Fab Lab León, Marius Araújo, Patrick-Waag:□□

15:22:02 Von Pablo Fab Lab Leon an Alle: Replying to "Pablo, he's taking orders right now! 6 or 12 pcs ?": lets start with 3, i have to earn for final projects... Fab Lab Akureyri:❤

15:22:42 Von Adrián - Fab Lab León an Alle: Go Koharu!!!! Kazutoshi Tsuda / Kitakagaya, Osaka, Hiroe Takeda:□□

15:22:46 Von Jani Ylioja an Alle: Watch out for IP with sponge bob

15:23:10 Von Jeremy Losaw an Alle: yaaaas!

15:23:50 Von Pablo Fab Lab Leon an Alle: look really stiff!!!

15:23:52 Von Patrick-Waag an Alle: wow

15:23:53 Von Rico Kanthatham an Alle: Buy Koharu's project! Finance her university education! Adrián - Fab Lab León, Hiroe Takeda, Claire - Lake Mac Libraries Fab Lab, Koharu Takeda:❤ Pablo Fab Lab Leon, Adrián - Fab Lab León:□□

15:23:58 Von Norella Coronell an Alle: Replying to "202503122321030000.gif": We need an updated version of this with real offer for students products Adrián - Fab Lab León:□□

15:24:05 Von Shintaro Ito : Node japan kannai an Alle: The ability to ping pong is attractive! I hadn't thought of that!

15:24:10 Von Svavar Konradsson Fab Lab Isafjordur an Alle: Really professional looking table

15:24:18 Von Kazutoshi Tsuda / Kitakagaya, Osaka an Alle: □□

15:24:45 Von Miriam an Alle: Replying to "202503122321030000.gif": We were thinking of making Fab-bitcoin type to use as like a credit to buy projects Pablo Fab Lab Leon:□□ Norella Coronell, Adrián - Fab Lab León:□□

15:25:13 Von Miriam an Alle: Replying to "202503122321030000.gif": Way to mine would be visiting different fab academy websites

15:25:18 Von Svavar Konradsson Fab Lab Isafjordur an Alle: That foosball table was a weekly project?!? Fab Lab Akureyri, Elen Grigoryan, Adrián - Fab Lab León:❤ Jani Ylioja:□□ Geovanny Fortín, Florimond Chu (FabLab SP):□□ Ricardo Marques:□□ Pablo Fab Lab Leon:□□

15:25:40 Von Miriam an Alle: Replying to "202503122321030000.gif": And/ or answering quizes Claire - Lake Mac Libraries Fab Lab:❤

15:25:58 Von Norella Coronell an Alle: Replying to "202503122321030000.gif": Or visiting students website - love the idea

15:26:39 Von Miriam an Alle: Replying to "202503122321030000.gif": Maybe Julian can help us with that.

15:26:54 Von Shintaro Ito : Node japan kannai an Alle: It's like he's alive!

15:27:03 Von Pablo Fab Lab Leon an Alle: The beggining of atropod alien XD

15:27:45 Von Adrián - Fab Lab León an Alle: Awesome Shoko!! Shoko KUDOMI:□□

15:27:47 Von saheen palayi an Alle: shoko □□ shoking with blender Rico Kanthatham:□□ Shoko KUDOMI:□□

15:27:55 Von Mkhitar Evoyan an Alle: Replying to "That foosball table was a weekly project?!?": It was daily project , i spend more than 60 Hours :D Ricardo Marques, Adrián - Fab Lab León, Svavar Konradsson Fab Lab Isafjordur:□□

15:27:56 Von Shintaro Ito : Node japan kannai an Alle: Replying to "That foosball table was a weekly project?!?": The desk is really practical and functional. Best of all, wood is expensive to buy, that's where FAB comes in! Svavar Konradsson Fab Lab Isafjordur:□□

15:28:12 Von Miriam an Alle: Shoko point of 15 Shoko KUDOMI:□□

15:28:14 Von Hiroe Takeda an Alle: so many work! amazing documents!! Shoko KUDOMI:□□

15:28:14 Von Enterprise fablab an Alle: nie work Shoko KUDOMI:□□

15:28:22 Von Norella Coronell an Alle: Replying to "20250312232103000.gif": It can be a cool Workshop to develop during FAB25 to apply for next cycle, with a gaming component Miriam, Adrián - Fab Lab León:❤

15:29:03 Von Miriam an Alle: Replying to "20250312232103000.gif": Ooh~

15:29:19 Von Pablo Fab Lab Leon an Alle: Replying to "20250312232103000.gif": Add me to it XD

15:29:28 Von Forrest O. an Alle: Aalto mention! □□□□ Enterprise fablab:❤

15:29:31 Von Kae Nagano an Alle: Nice work! Shoko Shoko KUDOMI:□□

15:29:56 Von Miriam an Alle: Replying to "20250312232103000.gif": Pablo will make the quizzes like in Global Open Time

15:30:32 Von Miriam an Alle: Replying to "20250312232103000.gif": Also the dude that will buy everything

15:30:45 Von Norella Coronell an Alle: Replying to "20250312232103000.gif": @Pablo Fab Lab Leon you are the lead and inspiration for this project

15:31:16 Von henk an Alle: Replying to "20250312232103000.gif": bitcion □□ It's so 2000! Adrián - Fab Lab León:□□

15:31:34 Von Miriam an Alle: Replying to "20250312232103000.gif": □□ sorry...

15:31:46 Von Pablo Fab Lab Leon an Alle: Replying to "20250312232103000.gif": Dont leave me alone! Ok, i can cordinate it. Miriam i need you XD Norella Coronell, Miriam:□□

15:31:49 Von Norella Coronell an Alle: Replying to "20250312232103000.gif": Any better suggestions @henk ?

15:32:10 Von henk an Alle: Replying to "20250312232103000.gif": would say anything better than bitcolin

15:32:43 Von Svavar Konradsson Fab Lab Isafjordur an Alle: Really nice result Magnús! andri-fab lab reykjavik:□□ Frosti Gíslason - Iceland- Vestmannaeyjar - Fab Lab, Fab Lab Akureyri:□□

15:32:52 Von Pablo Fab Lab Leon an Alle: Replying to "20250312232103000.gif": not bitcoin, but our own decentralized recognition coin.

15:33:04 Von Jeremy Losaw an Alle: bravo

15:33:11 Von Garrett Nelson an Alle: Yes, those are amazing projects!

15:33:15 Von saheen palayi an Alle: □□

15:33:22 Von Pablo Fab Lab Leon an Alle: Great week!!!!

15:33:41 Von Marius Araújo an Alle: Replying to "Great week!!!!": indeed

15:34:09 Von Miriam an Alle: Replying to "20250312232103000.gif": FabCaps Garrett Nelson:□□ Norella Coronell, Adrián - Fab Lab León:□□

15:35:18 Von Miriam an Alle: Replying to "20250312232103000.gif": 20250312233510.jpg

15:35:18 Von Fablab Cuenca an Alle: https://fabacademy.org/2025/labs/cuenca/students/camila-luna/assignments/week07.html

15:35:21 Von Fablab Cuenca an Alle: Final2.jpg Norella Coronell, Doaa El-Bess, Shintaro Ito : Node japan kannai, Pablo Fab Lab Leon:□□

15:35:35 Von Fablab Cuenca an Alle: it was a fun week!! https://fabacademy.org/2025/labs/cuenca/students/camila-luna/assignments/week07.html Miriam, Yuya Tokuyama:❤

15:35:47 Von Norella Coronell an Alle: Replying to "20250312232103000.gif": We had this idea of Fab Coin like in 2018 with Beno, but I guess someone already produced it here: https://fabcoin.org/

15:36:27 Von Norella Coronell an Alle: Replying to "20250312232103000.gif": @Miriam Love the inspiration

15:36:53 Von Miriam an Alle: Replying to "20250312232103000.gif": Pablo will head it up, I will help somehow, and Norella will promote it. DONE Fablab Cuenca/ASQ:❤

15:37:23 Von Doaa El-Bess an Alle: Stackable Cat House □□

15:37:24 Von Norella Coronell an Alle: Replying to "20250312232103000.gif": SOLD

15:37:26 Von Doaa El-Bess an Alle: Hero Shot 5.jpeg

15:37:28 Von Doaa El-Bess an Alle: Hero Shot.jpg Rico Kanthatham, Svavar Konradsson Fab Lab Isafjordur, Miriam, Adrián - Fab Lab León:□□ Kazutoshi Tsuda / Kitakagaya, Osaka, Adrián - Fab Lab León, Marius Araújo, Eman Elkfrawy, Garrett Nelson:□□

15:38:27 Von Fablab Cuenca an Alle: Replying to "20250312232103000O.gif": @Miriam such a nice idea

15:41:58 Von ferdi an Alle: https://unikat-ilmenau.de/wiki/books/week-8-electronics-production/page/global-class

15:43:08 Von olof an Alle: It would be cool to be able to create your own levitation module.

15:43:24 Von Miriam an Alle: Replying to "20250312232103000O.gif": So the question is... what will these fab caps be used for, and where, (the platform for the projects to be sold?) and what are they worth?

15:43:49 Von Miriam an Alle: Replying to "20250312232103000O.gif": Pablo, we should have a meeting or something

15:43:55 Von Miriam an Alle: Replying to "20250312232103000O.gif": @Pablo Fab Lab Leon

15:46:24 Von Patrick-Waag an Alle: Replying to "It would be cool to be able to create your own lev...": technically it is just a copper coil olof:□□

15:46:45 Von Claire - Lake Mac Libraries Fab Lab an Alle: Replying to "20250312232103000O.gif": Collaborative project at FAB25?

15:47:14 Von Claire - Lake Mac Libraries Fab Lab an Alle: Replying to "20250312232103000O.gif": Meet-Develop-Launch

15:49:00 Von Omar Baalbaki(SK 7) an Alle: □□

15:49:03 Von Adrián - Fab Lab León an Alle: □□

15:49:05 Von saheen palayi an Alle: □□ Quentin

15:49:05 Von Evelyn Andrea Cuadrado Guerrero an Alle: □□

15:49:10 Von Rico Kanthatham an Alle: □□ lei feng:□□

15:49:15 Von Fab Lab Akureyri an Alle: Amen

15:49:24 Von Amr Yaser Abdulrahiem an Alle: □□

15:49:26 Von Norella Coronell an Alle: Replying to "20250312232103000O.gif": Introducing FabCap: Gamifying Fab Academy with a Decentralized Coin □□ We’re excited to explore the idea of FabCap, a decentralized coin designed to enhance the Fab Academy experience through gamification! Here’s how it works: □□ Mining FabCap: Students, instructors, and peers can mine FabCap by exploring project websites from different students or Fab Lab nodes. The more you engage with the work of others, the more coins you can collect! □□ Present & Earn: When students present their projects during reviews, their ideas become "buyable" with FabCap. Peers and instructors can use

their mined coins to "purchase" the presented concepts, as a way to show appreciation and value for the work. □□ Meaningful Exchange: This system encourages students to check out each other’s documentation, fostering deeper connections across the global network. Plus, earning FabCap when your project is "bought" adds a fun, rewarding element to presenting your ideas!

15:49:45 Von Norella Coronell an Alle: Replying to "202503122321030000.gif": A little recap Claire - Lake Mac Libraries Fab Lab, Miriam:□□

15:49:46 Von olof an Alle: □□

15:50:15 Von Shintaro Ito : Node japan kannai an Alle: So big

15:50:19 Von Steven an Alle: In Akash/s case, for some reason, the https request routes his packet to https://akash-edamana-2f0181.fabcloud.io/ Happens after the SYN/SYN-ACK/ACK handshake. (sni=akash-edamana-2f0181.fabcloud.io) Superfablab Kochi:□□

15:50:21 Von Steven an Alle: {D1CC2CA7-7DD9-46D5-BD18-B8DA729E2DAC}.png

15:50:30 Von Patrick-Waag an Alle: now you only need an appropriate PC

15:50:34 Von Miriam an Alle: Replying to "202503122321030000.gif": You mean re-fabcap Norella Coronell:□□

15:51:06 Von Norella Coronell an Alle: Replying to "202503122321030000.gif": Happy to meet this Saturday before GOT to discuss, I love the idea Miriam, Pablo Fab Lab Leon:❤

15:51:31 Von Fab Lab Akureyri an Alle: Camera off: Pay 10 FabCap Shintaro Ito : Node japan kannai, Miriam:□□

15:51:59 Von Ricardo Marques an Alle: Replying to "In Akash/s case, for some reason, the https reques...": https://docs.gitlab.com/user/project/pages/#unique-domains have a look at this. I've spoken to Julian before about this and he fixed the issue but sent me that when I asked about documentation

15:52:05 Von Adrián - Fab Lab León an Alle: Frankestein versión hehehe

15:52:10 Von Aalto Fablab an Alle: HEY! I have the solution for the KiCad SVG bug. Go to Plot and export PDF! Works like a charm! Ricardo Marques, Adrián - Fab Lab León, Miriam:□□ Bir Maya Rai JNWSFL, Micka - FablabCuenca/ASQ, Miriam, Adrián - Fab Lab León, Marius Araújo:□□

15:52:16 Von Patrick-Waag an Alle: seems like modern art □□

15:52:42 Von Norella Coronell an Alle: Replying to "202503122321030000.gif": I’ll send an email Miriam:□□

15:52:57 Von Miriam an Alle: Replying to "202503122321030000.gif": Ok I can do that time

15:53:29 Von Adrián - Fab Lab León an Alle: Replying to "HEY! I have the solution for the KiCad SVG bug. Go...": But with the PDF, you need to convert with Inkscape to PNG?

15:53:48 Von Aalto Fablab an Alle: once you export PDF from KiCad 9, you can open it in Inkscape and post-process if needed Adrián - Fab Lab León, Micka - FablabCuenca/ASQ:□□

15:54:01 Von Aalto Fablab an Alle: You can open it in Gimp also and make PNG if you want Adrián - Fab Lab León:□□

15:54:23 Von Omar Baalbaki(SK 7) an Alle: □□

15:54:30 Von Aalto Fablab an Alle: Works both, with kicad-cli and normal GUI KiCad. henk, Adrián - Fab Lab León:□□ henk:□□ henk:□□

15:55:57 Von Aalto Fablab an Alle: Replying to "HEY! I have the solution for the KiCad SVG bug. Go...": MOds you can import SVG

15:56:04 Von Aalto Fablab an Alle: Replying to "HEY! I have the solution for the KiCad SVG bug. Go...": but yeah

15:56:15 Von Adrián - Fab Lab León an Alle: Replying to "HEY! I have the solution for the KiCad SVG bug. Go...": Ok, i prefer PNG

15:56:37 Von Aalto Fablab an Alle: Replying to "HEY! I have the solution for the KiCad SVG bug. Go...": so yes, you can open PDF in Gimp also and create PNG

15:56:46 Von Steven an Alle: Replying to "In Akash/s case, for some reason, the https reques...": Thought so, as user.fabcloud.io happens with pages. His repo index.html seems ok. Maybe he went to deploy his site using pages?

15:57:53 Von saheen palayi an Alle: bad end mill?

15:58:08 Von Adrián - Fab Lab León an Alle: Replying to "bad end mill?": leveling

15:58:13 Von Patrick-Waag an Alle: Replying to "bad end mill?": I would have guessed that it was loose and dropped down while milling

15:58:39 Von Ricardo Marques an Alle: Replying to "In Akash/s case, for some reason, the https reques...": I dunno, this year there was a change that flipped the default setting on unique domains. from what I understood of what Julian told me. Lab pages were almost all wrong, he had to write a script to batch fix them when I was talking to him. See if the student has access to that and can flip it back.

16:00:00 Von Ricardo Marques an Alle: Replying to "In Akash/s case, for some reason, the https reques...": @Aalto Fablab, How did you fix Aalto's lab page, yours was the only one I found working and Julian said you had fixed it manually already □□

16:00:52 Von Adrián - Fab Lab León an Alle: Replying to "20250312232103000.gif": We have this, when people use my documentation ;) https://fabacademy.org/2024/labs/leon/adrianfanclub.png

16:00:58 Von Adrián - Fab Lab León an Alle: Replying to "20250312232103000.gif": {96DA7511-5D05-419F-8DEB-CFE8475ECE56}.png Marius Araújo, Frosti Gíslason - Iceland- Vestmannaeyjar - Fab Lab:□□

16:01:12 Von saheen palayi an Alle: https://www.moonzite.com/3-175mm-Shank-HSS-Engraving-Bit-End-Milling-Cutter-20-30-45-60-Degrees-Tip-0-1-0-2-0-3mm-3D-Milling-Bit-Woodworking-Carving-004767

```
this works nicer than traditional v bits
Svavar Konradsson Fab Lab Isafjordur:□□
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16:02:14 Von henk an Alle: Replying to "In Akash/s case, for some reason, the https reques...": Image 2025-03-12 at 160208.png Superfablab Kochi, Frosti Gíslason - Iceland- Vestmannaeyjar - Fab Lab:□□ Ricardo Marques, Miriam, Adrián - Fab Lab León:□□

16:02:15 Von Miriam an Alle: Replying to "20250312232103000.gif": Hmmm I will have to centralize it and make a separate cap for Adrian Adrián - Fab Lab León, Claire - Lake Mac Libraries Fab Lab:□□

16:02:20 Von saheen palayi an Alle: Replying to "https://www.moonzite.com/3-175mm-Shank-HSS-Engravi...": this were used in pico mill,

16:02:25 Von henk an Alle: Replying to "In Akash/s case, for some reason, the https reques...": in pages you should change this.

16:02:43 Von Svavar Konradsson Fab Lab Isafjordur an Alle: Replying to "https://www.moonzite.com/3-175mm-Shank-HSS-Engravi...": Nice

16:03:24 Von Miriam an Alle: Replying to "20250312232103000.gif": Also I am contemplating the value of Adrian Fabcap. Everyone will have one, but it is important to check Adrian’s website... so.... Adrián - Fab Lab León:□□

16:03:38 Von Svavar Konradsson Fab Lab Isafjordur an Alle: Replying to "https://www.moonzite.com/3-175mm-Shank-HSS-Engravi...": Which size?

16:03:43 Von ndcoster an Alle: main "trick" for this week : use thick traces :-) Garrett Nelson:□□

16:03:46 Von Superfablab Kochi an Alle: Replying to "In Akash/s case, for some reason, the https reques...": will look into it. thanks Ricardo Marques:□□

16:04:48 Von henk an Alle: Replying to "https://www.moonzite.com/3-175mm-Shank-HSS-Engravi...": https://aliexpress.com/item/32827787956.html Adrián - Fab Lab León, Svavar Konradsson Fab Lab Isafjordur, Frosti Gíslason - Iceland- Vestmannaeyjar - Fab Lab:□□

16:06:57 Von henk an Alle: Replying to "https://www.moonzite.com/3-175mm-Shank-HSS-Engravi...": @miriam also pointed me to these (0.1mm tip): https://nl.aliexpress.com/item/1005006083229169.html Svavar Konradsson Fab Lab Isafjordur:□□

16:08:09 Von henk an Alle: Replying to "https://www.moonzite.com/3-175mm-Shank-HSS-Engravi...": both for modela, lunyee and machines that have a 3.175 shaft

16:08:21 Von Ricardo Marques an Alle: Replying to "https://www.moonzite.com/3-175mm-Shank-HSS-Engravi...": I've looked at deburring end-mills too. I've bought some but I haven't tried milling with them yet. 60º, 3 flute with some upcut. https://i5.walmartimages.com/asr/4dc1155f-4134-490c-8518-a59190da01ab.204875d4e4a087f3e8f81be6841039b0.jpeg

16:09:00 Von Ricardo Marques an Alle: Replying to "https://www.moonzite.com/3-175mm-Shank-HSS-Engravi...": Generally made of carbide so they should last a while too.

16:09:38 Von saheen palayi an Alle: Replying to "https://www.moonzite.com/3-175mm-Shank-HSS-Engravi...": @Svavar Konradsson Fab Lab Isafjordur 0.2 30 degree I think, shaft dia is 3.175 mm

16:11:09 Von Svavar Konradsson Fab Lab Isafjordur an Alle: Replying to "https://www.moonzite.com/3-175mm-Shank-HSS-Engravi...": Thanks @saheen! saheen palayi:□□

16:11:38 Von Adrián - Fab Lab León an Alle: Vinyl cooper https://fabacademy.org/2020/labs/leon/students/adrian-torres/week04.html

16:11:53 Von Adrián - Fab Lab León an Alle: Replying to "Vinyl cooper https://fabacademy.org/2020/labs/leon...": {A031E1E3-E73D-42FE-8570-9A908A63412C}.png Hiroe Takeda:□□

16:12:08 Von Adrián - Fab Lab León an Alle: Replying to "Vinyl cooper https://fabacademy.org/2020/labs/leon...": But first hehe

16:12:10 Von Adrián - Fab Lab León an Alle: Replying to "Vinyl cooper https://fabacademy.org/2020/labs/leon...": {98A64E30-9042-4AA0-8890-7F9C3588C703}.png Hiroe Takeda:□□

16:12:21 Von henk an Alle: Replying to "https://www.moonzite.com/3-175mm-Shank-HSS-Engravi...": https://aliexpress.com/item/32827787956.html last year did whole fabacademy with 5 students and one bit. it's still in the machine, so will also serve this years students :) Adrián - Fab Lab León:❤ Svavar Konradsson Fab Lab Isafjordur:□□

16:12:51 Von Charath Chandar Natarajan an Alle: WhatsApp Image 2025-02-28 at 17.50.04_2e0f5ef8.jpg saheen palayi, Gayatri projects:❤

16:12:56 Von Miriam an Alle: Replying to "Vinyl cooper https://fabacademy.org/2020/labs/leon...": See, everyone will visit your website, and so the AdrianCAP will over populate the market. Adrián - Fab Lab León, Pablo Fab Lab Leon:□□

16:12:58 Von Hiroe Takeda an Alle: https://fabacademy.org/2014/students/oami.takuma/final_project.html Adrián - Fab Lab León, Miriam:❤

16:14:03 Von Adrián - Fab Lab León an Alle: Replying to "Vinyl cooper https://fabacademy.org/2020/labs/leon...": It would be better if you use my documentation, mention me and put the sticker.

16:14:56 Von Patrick-Waag an Alle: can a diode do it too ?

16:15:30 Von Jani Ylioja an Alle: Some diodes can, depends of vawe length Patrick-Waag:□□

16:15:48 Von Miriam an Alle: Replying to "Vinyl cooper https://fabacademy.org/2020/labs/leon...": I think I will update my documentation so that it is worth looking. Adrián - Fab Lab León, Hiroe Takeda:❤

16:16:36 Von Patrick-Waag an Alle: ok, thx

16:18:54 Von Shintaro Ito : Node japan kannai an Alle: @Neil I apologize for the basic question, but is it possible to substitute aluminum or gold for copper in electronic circuit boards? (I occasionally hear about extracting gold from scrap materials.) If these metals are used, what are the reasons behind their selection?

16:20:05 Von Ricardo Marques an Alle: is there a good way to clear out minor laser shorts? like maybe applying a high-ish voltage to the short?

16:20:07 Von Garrett Nelson an Alle: post link for that please neil?

16:20:38 Von Ricardo Marques an Alle: Replying to "is there a good way to clear out minor laser short...": ty

16:20:44 Von Garrett Nelson an Alle: THanks

16:20:46 Von Jani Ylioja an Alle: We run two jobs with different dpi with great result

16:21:00 Von Adrián - Fab Lab León an Alle: Replying to "@Neil I apologize for the basic question, but is...": If you use aluminum and copper, you'll end up with oxides in the future. You have to use bimetallic parts (very expensive). This happens in power lines; they're made of aluminum, but transformers are made of copper. Shintaro Ito : Node japan kannai:❤ Shintaro Ito : Node japan kannai:□□

16:21:04 Von Fab Lab Akureyri an Alle: Have you had good results with cutting the board with the fiber laser? Our test resulted in lots of burning of the substrate material. Also, have you experimenting with using the fiber laser to do the drilling?

16:21:58 Von Fab Lab Akureyri an Alle: sharing of said settings would be interesting

16:22:09 Von Fab Lab Akureyri an Alle: Ok thanks

16:22:36 Von Shintaro Ito : Node japan kannai an Alle: Replying to "@Neil I apologize for the basic question, but is...": @Adrián - Fab Lab León The transmission line is made of aluminum, but the transformer is made of copper.

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That is certainly true! Thanks to you I realized it!
Adrián - Fab Lab León:❤
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16:24:53 Von Ricardo Marques an Alle: https://fabacademy.org/2022/labs/fct/students/ricardo-marques/images/week13/Xiao_Reflow.jpg and this is how fr1 looks like when you burn it on a hot plate :D Fab Lab Akureyri:❤ Patrick-Waag, Fab Lab Akureyri, Miriam: Jani Ylioja, Fab Lab Akureyri: Adrián - Fab Lab León, Fab Lab Akureyri:

16:26:00 Von Ricardo Marques an Alle: Replying to "https://fabacademy.org/2022/labs/fct/students/rica...": Heat it a bit from below and use hot air to melt it.

16:27:04 Von hongtai an Alle: free

16:27:18 Von Enterprise fablab an Alle: Can you fiber laser an FR4 copper sheet?

16:28:07 Von Benedikt Ilmenau an Alle: What is with CEM-1 and CEM-3? Are they still in the development or are they already more commonly available in the industry?

16:28:26 Von Saverio Shanghai an Alle: production and delivery in mainland China takes 1 to 3 days... unless you choose a fancy color for the pcb, then you might wait one day more ahah Adrián - Fab Lab León, Benedikt Ilmenau, Daniel Mateos:❤

16:28:39 Von Shintaro Ito : Node japan kannai an Alle: @Neil I have a question related to electronics production.

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What could you tell us about LumenPnP v4?
LumenPnP v4 is a desktop, open-source pick-and-place machine developed by Opulo that, they
claim, can place electronic components on printed circuit boards (PCBs) with high precision
and reliability.

In terms of reducing the risk of the manufacturing process and the effort spent relaying
conversations with the factory, it could be a good match for rapid prototyping and small to
mid-size production.

I'm very interested in this.
https://www.opulo.io/products/lumenpnp
Oscar:
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16:29:06 Von Ricardo Marques an Alle: The guy that made the fiber laser tutorial is the lumen dev Shintaro Ito : Node japan kannai:❤

16:30:03 Von Ricardo Marques an Alle: Replying to "The guy that made the fiber laser tutorial is the ...": https://www.youtube.com/@stephen_hawes/vídeos Shintaro Ito : Node japan kannai:□□ Frosti Gíslason - Iceland- Vestmannaeyjar - Fab Lab:□□

16:32:22 Von ferdi an Alle: Is anybody using the bingard Favorit?

16:32:27 Von ferdi an Alle: Bungard

16:35:39 Von Shintaro Ito : Node japan kannai an Alle: Lead-free solder has a high melting point, which makes it very challenging……

16:36:11 Von Sam an Alle: Image 2025-03-12 at 163608.png Daniel Mateos, Adrián - Fab Lab León, Norella Coronell, Patrick-Waag, Claire - Lake Mac Libraries Fab Lab, Fab Lab Akureyri, Dylan, Miriam, Tshering Dorji JNWSFL, Marius Araújo:□□

16:36:26 Von Claire - Lake Mac Libraries Fab Lab an Alle: Replying to "Lead-free solder has a high melting point, which m...": Yep, we challenge our students to use it Shintaro Ito : Node japan kannai:□□

16:36:43 Von Ricardo Marques an Alle: Replying to "Lead-free solder has a high melting point, which m...": solder composition can change properties a lot. If I recall correcly a bit of copper helps lower the melting temperature. Shintaro Ito : Node japan kannai:❤ Shintaro Ito : Node japan kannai:□□

16:37:10 Von Benedikt Ilmenau an Alle: Best advertisement from the german chamber of craft.

16:37:13 Von Benedikt Ilmenau an Alle: 54268354_2856803041004366_6222897880890343424_n.jpg Anna B., Midhun Joseph, Fab Lab Akureyri, Oscar, Pablo Fab Lab Leon, Kerstin, Frosti Gíslason - Iceland- Vestmannaeyjar - Fab Lab, Patrick-Waag, Marius Araújo, Daniel Mateos:□□

16:37:35 Von Adrián - Fab Lab León an Alle: Good documentation about soldermask during the Instructors Bootcamp 2024 in León: https://academany.fabcloud.io/fabacademy/2024/bootcamp-instructors/workshops/Soldermask/ Shintaro Ito : Node japan kannai:□□

16:37:55 Von saheen palayi an Alle: Replying to "54268354_2856803041004366_6222897880890343424_n.jp...": this picture never dies, till human race : D

16:38:51 Von Jani Ylioja an Alle: Replying to "Bungard": Aalto has bungard

16:39:09 Von Ricardo Marques an Alle: Tiny tips are more precise but they have more trouble conducting heat so it can be harder to melt the wire.

16:39:43 Von Adrián - Fab Lab León an Alle: Soldering is similar dancing □□□□ 1, 2, 3... 1,2,3.... Jani Ylioja:□□

16:40:04 Von Jani Ylioja an Alle: Replying to "Soldering is similar dancing □□□□ 1, 2, 3... 1,2,3...": is it salsa?

16:40:12 Von Adrián - Fab Lab León an Alle: Replying to "Soldering is similar dancing □□□□ 1, 2, 3... 1,2,3...": Maybe hahaha

16:40:55 Von Patrick-Waag an Alle: the witch craft of FabAc is starting now

16:41:20 Von Pablo Fab Lab Leon an Alle: Duaa makes a good approach to start soldering during the Students Bootcamp in 2023:https://vimeo.com/academany/students-bootcamp2023-2?share=copy Adrián - Fab Lab León, saheen palayi:❤ Ricardo Marques, Miriam, Svavar Konradsson Fab Lab Isafjordur:□□ Jani Ylioja:□□

16:41:30 Von Miriam an Alle: Replying to "Soldering is similar dancing □□□□ 1, 2, 3... 1,2,3...": Count better than this girl

16:42:04 Von jakob an Alle: Replying to "Soldering is similar dancing □□□□ 1, 2, 3... 1,2,3...": i think the best music listening during soldering is dub: https://moonshinerecordings.bandcamp.com/track/run-dub

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make sure you have proper subwoofers in the lab.
Claire - Lake Mac Libraries Fab Lab, andri-fab lab reykjavik:❤□
Dylan:□□
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16:42:05 Von Dylan an Alle: sodder.jpg Patrick-Waag:□□

16:43:08 Von Ricardo Marques an Alle: paint brush is great to apply flux rosin, some flux pens dry out too quickly https://fabacademy.org/2022/labs/fct/students/ricardo-marques/images/week05/Soldering_Flux.jpg

16:44:02 Von Pablo Fab Lab Leon an Alle: Replying to "sodder.jpg": If you like memes, dont forget to join the Meme Channel in Mattermost: https://chat.academany.org/fabacademy-2025/channels/meme-academy Adrián - Fab Lab León, Norella Coronell:□□ Ricardo Marques:□□

16:44:08 Von Claire - Lake Mac Libraries Fab Lab an Alle: {6EDE66CD-6119-4CC2-90F9-27C30BF7F1D8}.png Adrián - Fab Lab León, Sam, Garrett Nelson:□□

16:45:34 Von Ricardo Marques an Alle: Look for that Pin 1....

16:45:38 Von jakob an Alle: Replying to "Soldering is similar dancing □□□□ 1, 2, 3... 1,2,3...": one probably can also dance salsa to it, but it would be rather more layed back and swingy

16:47:05 Von saheen palayi an Alle: 1 thing about de-solder wick : keep it in box after use, it will last with perfomance Adrián - Fab Lab León:□□

16:47:36 Von Ricardo Marques an Alle: do remember the braid is very conductive. don't burn yourself - source: someone that has burned himself with braids a couple of times □□ Adrián - Fab Lab León:❤ Patrick-Waag, Shintaro Ito : Node japan kannai:□□ Patrick-Waag, Tshering Dorji JNWSFL, Claire - Lake Mac Libraries Fab Lab:□□

16:50:42 Von Omar Baalbaki(SK 7) an Alle: Fusion CAM?

16:50:49 Von Benedikt Ilmenau an Alle: What are the alternative to gerber files in the industrie, for not house made pcbs?

16:51:15 Von saheen palayi an Alle: @Neil can You show the double side PCB PNG file generation video in the wiki Adrián - Fab Lab León, Patrick-Waag, Jani Ylioja, Frosti Gíslason - Iceland- Vestmannaeyjar - Fab Lab, Hiroe Takeda, Ricardo Marques, Daniel Mateos:❤

16:52:12 Von Miriam an Alle: Replying to "do remember the braid is very conductive. don't bu...": Another “ask me how I know”

16:52:23 Von andri-fab lab reykjavik an Alle: nice

16:53:49 Von Amr Yaser Abdulrahiem an Alle: mdx50 has it ^^

16:54:12 Von saheen palayi an Alle: Replying to "@Neil can You show the double side PCB PNG file g...": we ran out double sided FR1 PCB in our inventory because of this □□ Ricardo Marques:□□

16:56:53 Von Ricardo Marques an Alle: avoid tssop componentes, 0.2mm pin spacing.

16:57:24 Von Ricardo Marques an Alle: Replying to "avoid tssop componentes, 0.2mm pin spacing.": soldering is as much fun as milling that tool.

16:58:02 Von Evert Stefán Jensson an Alle: Replying to "avoid tssop componentes, 0.2mm pin spacing.": soldering is not for me its imposible Pablo Fab Lab Leon, Adrián - Fab Lab León:□□

16:58:29 Von Adrián - Fab Lab León an Alle: Remember! This Saturday, Global Open Time returns at 10:00 AM Boston Time. More info: https://chat.academany.org/fabacademy-2025/channels/global-open-time Frosti Gíslason - Iceland- Vestmannaeyjar - Fab Lab, Miriam, take, Shintaro Ito : Node japan kannai, Marius Araújo, Hiroe Takeda, andri-fab lab reykjavik:❤ Ricardo Marques:□□

16:58:36 Von Ricardo Marques an Alle: Replying to "avoid tssop componentes, 0.2mm pin spacing.": With practice you can get better. There are precision soldering irons that make life much easier

16:59:08 Von Ricardo Marques an Alle: Replying to "avoid tssop componentes, 0.2mm pin spacing.": Small diameter wire can also help. it's harder to add too much solder

16:59:27 Von Ricardo Marques an Alle: Replying to "avoid tssop componentes, 0.2mm pin spacing.": And flux, add a lot of flux

16:59:52 Von Shintaro Ito : Node japan kannai an Alle: Even if the substrate works, it doesn't mean that EMC (Electro Magnetic Compatibility) is maintained. I'll try that this week too!

17:00:18 Von henk an Alle: Image 2025-03-12 at 170011.png

17:00:22 Von Evert Stefán Jensson an Alle: Replying to "avoid tssop componentes, 0.2mm pin spacing.": i have very good iron, and been soldering long time but always have problem whit it □□

Safety

Using FR4 is not recommended for milling. Getting into contact with fiber could cause health issues. The following resourcen I found:

- https://enviroliteracy.org/how-long-does-fiberglass-stay-in-the-air/
- https://indoorscience.com/blog/should-i-be-concerned-about-fiberglass/
- https://doh.wa.gov/community-and-environment/air-quality/indoor-air/fiberglass

local class

gerber2png

https://gerber2png.fablabkerala.in

https://git.fablabkerala.in/midlaj/gerber2png/-/wikis/home

gerber2img

https://quentinbolsee.pages.cba.mit.edu/gerber2img/

CopperCAM

https://www.galaad.net/coppercam-eng.html

FlatCAM

http://flatcam.org/