global class

chat

14:30:25 Von henk henk@waag.org an Alle: Replying to "Nachricht wurde vor Ihrem Beitritt zum Meeting ges...": happy birthday Rico~ Rico Kanthatham:□□

14:30:58 Von Milliam an Alle: Replying to "Nachricht wurde vor Ihrem Beitritt zum Meeting ges...": Yep

14:31:00 Von Rico Kanthatham an Alle: Replying to "Nachricht wurde vor Ihrem Beitritt zum Meeting ges...": @Jorge Valerio - Fab Lab ESAN papayita!!! Jorge Valerio - Fab Lab ESAN:□□

14:32:14 Von Frosti Gíslason - Iceland- Vestmannaeyjar - Fab Lab an Alle: Happy birthday grand master Rico :) Rico Kanthatham:□□

14:32:45 Von Adrián - Fab Lab León an Alle: Henk

14:32:47 Von henk henk@waag.org an Alle: wio-sx1262 Luc Hanneuse:□□

14:33:15 Von Jani Ylioja an Alle: J-P: any suggestions?

14:33:37 Von Rico Kanthatham an Alle: anyway for us to interface with meshtastic?

14:34:08 Von saheen palayi an Alle: antenna depends the frequency right ?

14:34:15 Von Jani Ylioja an Alle: Replying to "antenna depends the frequency right ?": yes

14:34:44 Von Jani Ylioja an Alle: Replying to "antenna depends the frequency right ?": also needs to have impedance fit saheen palayi:□□

14:35:01 Von henk henk@waag.org an Alle: https://gitlab.fabcloud.org/pub/project/bootcamp-2025-am/xiao-lora Rico Kanthatham:□□

14:35:22 Von saheen palayi an Alle: Replying to "antenna depends the frequency right ?": this is the one I got for our lora frequency (IN- 868mhz) https://robu.in/product/lora-antenna-868mhz/

14:35:37 Von Claire: Lake Mac Libraries Fab Lab an Alle: Meshtastic for Pico https://core-electronics.com.au/courses/meshtastic-for-makers-workshop/ Rico Kanthatham:□□

14:40:02 Von Rico Kanthatham an Alle: clear in Kamakura

14:40:19 Von Rico Kanthatham an Alle: Replying to "clear in Kamakura": Bhutan still a question mark

14:40:23 Von Daniel Mateos an Alle: Fine @ barcelona

14:40:58 Von Salman an Alle: Cnc shields or ready drivers are fine too?

14:41:04 Von Claire: Lake Mac Libraries Fab Lab an Alle: I've recruited a partner for my one student :) Adrián - Fab Lab León, Rico Kanthatham:❤ Ricardo Marques:□□

14:43:03 Von saheen palayi an Alle: @Salman try Urumbu + Python GUI ,
will be cool and amazing we gave it a try last year example :-
https://fabacademy.org/2024/labs/kochi/machine_week/Cut-Urumbu/ Adrián - Fab Lab León, Salman:❤

14:43:26 Von Luciana Asinari an Alle:
https://gitlab.fabcloud.org/academany/fabacademy/2025/staff/-/issues/10

14:46:32 Von Pablo Fab Lab Leon an Alle: We need to catch those who will not finish on time.

14:46:57 Von Salman an Alle: Maybe local instructors can nominate by midterm those most likely to reach target Norella Coronell, Pablo Fab Lab Leon, Rico Kanthatham, Adrián - Fab Lab León, saheen palayi:□□

14:47:57 Von Rico Kanthatham an Alle: Replying to "Maybe local instructors can nominate by midterm th...": agreed. local instructor perspective very important. they have the pulse on each student's motivation and work ethic henk:□□

14:50:21 Von Salman an Alle: For molding, 3d printed molds are fine in itself or milling is mandatory?

14:50:50 Von Jani Ylioja an Alle: SLA or postprocessing needed

14:50:53 Von saheen palayi an Alle: Replying to "For molding, 3d printed molds are fine in itself o...": should be a high resolution printer , DLP/SLA

14:51:20 Von Noor Ahmed Raza Pirwani an Alle: I have a question: Can the global evaluator assess a week before the local evaluation? I understand this is not conventional, but I just wanted to check.

14:51:24 Von Salman an Alle: Yeah clear thanks

14:51:58 Von henk an Alle: Replying to "I have a question: Can the global evaluator assess...": No! Local has to review first. Adrián - Fab Lab León:□□

14:51:58 Von Pablo Fab Lab Leon an Alle: Replying to "For molding, 3d printed molds are fine in itself o...": From Assessment book: Can I 3D print the mold? Answer: Yes, you can 3D-print your mold if you can produce a smooth surface finish. FFF/FDM is not smooth enough, if you are using those you need to postprocess the surface.

14:52:35 Von henk an Alle: Replying to "I have a question: Can the global evaluator assess...": i start evaluation after the local has marked the week as done Luc Hanneuse:□□

14:53:33 Von saheen palayi an Alle: https://www.digikey.in/en/products/detail/ai-thinker/BU01/16688861

14:56:39 Von henk an Alle: for meshtastic: seeed now also have a nrf52+sx1261 combo that consumes way less than an esp32-S3. Better if you want to make a solar and/or battery powered project. https://www.seeedstudio.com/XIAO-nRF52840-Wio-SX1262-Kit-for-Meshtastic-p-6400.html Ricardo Marques, Nicolas De Coster, Lars Mattern - HRW Fablab, Rico Kanthatham, Claire: Lake Mac Libraries Fab Lab, Roberto, Adrián - Fab Lab León:❤

14:56:43 Von Andri Sæmundsson - Fab Lab Reykjavik an Alle: thanks Svavar Konradsson Fab Lab Isafjordur:□□

14:59:37 Von shintaro ito: node japan kannai an Alle: April has come in the blink of an eye! Time flies even faster since I joined Fab academy!□□ Ricardo Marques, Patrick - waag:□□ Adrián - Fab Lab León, Claire: Lake Mac Libraries Fab Lab, Bir Maya Rai JNWSFL:□□ Noor Ahmed Raza Pirwani, Patrick - waag:□□

15:00:48 Von Rico Kanthatham an Alle: Replying to "April has come in the blink of an eye! Time flies ...": How is your documentation? Final Project progress? □□ shintaro ito: node japan kannai, Pablo Fab Lab Leon, Adrián - Fab Lab León:□□ Noor Ahmed Raza Pirwani:□□

15:01:15 Von Rico Kanthatham an Alle: Replying to "April has come in the blink of an eye! Time flies ...": 7 more weeks remaining... Claire: Lake Mac Libraries Fab Lab:□□ shintaro ito: node japan kannai:□□

15:01:21 Von henk an Alle: after Fab25, all come to why2025! Outdoor international hackercamp in the netherlands. We were there 2 years ago with a fabacademy village and had a lot of fun! https://fabacademy.org/2024/labs/agrilab/about/#2022 Luc Hanneuse:□□ Rico Kanthatham, Patrick - waag:□□ Milliam, Patrick - waag, Frosti Gíslason - Iceland- Vestmannaeyjar - Fab Lab, Adrián - Fab Lab León:□□

15:01:46 Von henk an Alle: https://wiki.why2025.org/Village:Fablab/Fabacademy

15:02:13 Von Nicolas De Coster an Alle: Really looks like @Dylan Heneck has a picture of @Patrick - waag in the background ihlin, Adrián - Fab Lab León, Mkhitar Evoyan, Patrick - waag:□□

15:02:36 Von Patrick - waag an Alle: Replying to "Really looks like @Dylan Heneck has a picture of @...": maybe □□

15:02:57 Von Neil an Alle: https://ekswhyzee.com/2025/03/24/foc-stepper.html saheen palayi, Adrián - Fab Lab León:❤ Rico Kanthatham, Svavar Konradsson Fab Lab Isafjordur:□□

15:04:57 Von Claire: Lake Mac Libraries Fab Lab an Alle: □□ saheen palayi:□□ Forrest O., Ricardo Marques, Kazutoshi Tsuda, Lars Mattern - HRW Fablab, Adrián - Fab Lab León, shintaro ito: node japan kannai, Patrick - waag:□□

15:05:31 Von Dylan Heneck an Alle: looks the right way up to me...????

15:06:01 Von henk an Alle: learned more after than during my fabacademy Rico Kanthatham:□□

15:06:03 Von Nicolas De Coster an Alle: Fabmanager @ULB :-)

15:06:08 Von Daniel Mateos an Alle: Looks good to me

15:06:12 Von Yerlan an Alle: {991A82F6-630F-417C-B4E1-182BE3D6D418}.png Pablo Fab Lab Leon, Þórarinn Bjartur Breiðfjörð Gunnarsson:□□

15:06:16 Von Claire: Lake Mac Libraries Fab Lab an Alle: Upside down for me

15:06:32 Von Amr Yaser Abdulrahiem an Alle: Upside down for me

15:06:58 Von Claire: Lake Mac Libraries Fab Lab an Alle: We have discovered a new bug in zoom □□ Patrick - waag:□□

15:07:00 Von Ahmed FabLab Kamp-Lintfort an Alle: Looks good to me too

15:07:03 Von Nicolas De Coster an Alle: Neil : the longest lasting "continuing student" Rico Kanthatham, Adrián - Fab Lab León, Claire: Lake Mac Libraries Fab Lab, Patrick - waag:□□

15:07:03 Von Evert an Alle: Maybe his cam is upside down Patrick - waag:□□

15:08:13 Von Nicolas De Coster an Alle: no sound

15:08:16 Von henk an Alle: makes no sense without audio :(Noor Ahmed Raza Pirwani:□□

15:08:28 Von Adrián - Fab Lab León an Alle: Neil you need to share your screen with sound Rico Kanthatham, Claire: Lake Mac Libraries Fab Lab, Noor Ahmed Raza Pirwani:□□

15:08:55 Von Magnús - Reykjavík an Alle: https://youtu.be/bYLdu_Tjhdw?si=R_G6hQC1WCh5ojxk Here's the link

15:09:06 Von Camila Luna an Alle: @Patrick - waag You can fix □□ by going to Zoom's camera settings. In the video settings, you'll see an icon in the corner to rotate the image. Just click it until you're the right way up! henk:□□ Marius Araújo:□□ Marius Araújo:□□

15:09:11 Von Claire: Lake Mac Libraries Fab Lab an Alle: {CCAA2E2E-57C2-46AD-91A8-041CBBFB6DA7}.png Pablo Fab Lab Leon, Lars Mattern - HRW Fablab, Adrián - Fab Lab León,

Patrick - waag:□□

15:09:12 Von Neil an Alle: https://www.youtube.com/watch?v=bYLdu_Tjhdw

15:09:13 Von saheen palayi an Alle: He is like:- "I'm batman" □□ Camila Luna, Pablo Fab Lab Leon, Kazutoshi Tsuda, Adrián - Fab Lab León, Noor Ahmed Raza Pirwani, Lars Mattern - HRW Fablab, Claire: Lake Mac Libraries Fab Lab, Þórarinn Bjartur Breiðfjörð Gunnarsson, Hiroe Takeda, Dylan Heneck, Patrick - waag:□□ Ahmed FabLab Kamp-Lintfort:□□

15:09:53 Von Noor Ahmed Raza Pirwani an Alle: in 2010 it took a lot effort to make sounds from shopbot

15:11:45 Von Noor Ahmed Raza Pirwani an Alle: Replying to "He is like:- "I'm batman" □□": {B26DD2DC-314A-43F5-B86A-8C2CBD338ACD}.png Adrián - Fab Lab León, Þórarinn Bjartur Breiðfjörð Gunnarsson, Lars Mattern - HRW Fablab, Frosti Gíslason - Iceland- Vestmannaeyjar - Fab Lab, saheen palayi, Claire: Lake Mac Libraries Fab Lab, Hiroe Takeda, Patrick - waag, Daniel Osika: □□

15:12:03 Von Nicolas De Coster an Alle: it was non trivial looking at the board :-) Ricardo Marques: □□□

15:15:14 Von Nicolas De Coster an Alle: tristate = high impedance / input

15:16:10 Von Þórarinn Bjartur Breiðfjörð Gunnarsson an Alle: Image 2025-04-02 at 131603.png Norella Coronell:□□

15:16:49 Von Nicolas De Coster an Alle: here is something to gimp/photoshop :

15:16:53 Von Nicolas De Coster an Alle: Image 2025-04-02 at 151645.png Javier Osorio, Þórarinn Bjartur Breiðfjörð Gunnarsson, Nuria | Fab Lab León, Jesal Mehta:□□

15:16:55 Von saheen palayi an Alle: Replying to "He is like:- "I'm batman" □□": @Patrick - waag we got you □□ □□

15:17:02 Von saheen palayi an Alle: Replying to "He is like:- "I'm batman" □□": {E47041C4-A856-4F05-A909-E5A0695017C5}.png Daniel Osika, Adrián - Fab Lab León, ihlin, Nuria | Fab Lab León, Patrick - waag, shintaro ito: node japan kannai, Hiroe Takeda, Dylan Heneck, Koharu Takeda:□□

15:17:25 Von Adrián - Fab Lab León an Alle: Replying to "He is like:- "I'm batman" □□": rico.png Camila Luna, Hiroe Takeda, saheen palayi, Dylan Heneck, Jhasmin Ayala Rojas, Koharu Takeda, Norella Coronell:❤

15:19:12 Von Nicolas De Coster an Alle: Image 2025-04-02 at 151905.png Javier Osorio, Jorge Valerio - Fab Lab ESAN:□□ Adrián - Fab Lab León, saheen palayi, Rico Kanthatham:□□

15:19:13 Von Nicolas De Coster an Alle: "experts"

15:19:32 Von Superfablab Kochi an Alle: BatAcademy

15:19:39 Von Superfablab Kochi an Alle: IMG20250402184623.jpg Lars Mattern - HRW Fablab, Adrián - Fab Lab León, saheen palayi, Luciana Asinari, henk, Rico Kanthatham, Pablo Fab Lab Leon, Jorge Valerio - Fab Lab ESAN, Patrick - waag, Þórarinn Bjartur Breiðfjörð Gunnarsson, Norella Coronell:□□

15:20:15 Von Þórarinn Bjartur Breiðfjörð Gunnarsson an Alle: Replying to "Image 2025-04-02 at 151645.png": Image 2025-04-02 at 132005.png Nicolas De Coster, Ricardo Marques, Camila Luna, Lars Mattern - HRW Fablab, saheen palayi, Norella Coronell:❤ Nuria | Fab Lab León, Adrián - Fab Lab León, Jorge Valerio - Fab Lab ESAN, Svavar Konradsson Fab Lab Isafjordur, Jesal Mehta, Patrick - waag:□□

15:20:14 Von Ricardo Marques an Alle: Replying to "IMG20250402184623.jpg": real-time memes? where do I sign-up Camila Luna, saheen palayi:□□

15:20:49 Von Dylan Heneck an Alle: b383df5a391544eba871146584fe42a3c0d08489.png Camila Luna, Adrián - Fab Lab León, Patrick - waag:□□ Ricardo Marques, Adrián - Fab Lab León, Kazutoshi Tsuda, Norella Coronell:□□

15:22:12 Von Ricardo Marques an Alle: Replying to "b383df5a391544eba871146584fe42a3c0d08489.png": {BD3F4126-1B7C-485C-B8B1-EB82EA7565D1}.png Pablo Fab Lab Leon, Patrick - waag:□□

15:22:47 Von Nicolas De Coster an Alle: pretty unruly class today Ricardo Marques, Jesal Mehta, Claire: Lake Mac Libraries Fab Lab, Patrick - waag:□□

15:23:09 Von Rico Kanthatham an Alle: Replying to "pretty unruly class today": ship of fools!

15:23:13 Von Claire: Lake Mac Libraries Fab Lab an Alle: DIY Weather Station https://core-electronics.com.au/projects/lora-weather-station-pico/ Patrick - waag:□□

15:23:19 Von Pablo Fab Lab Leon an Alle: Replying to "pretty unruly class today": what class? Rico Kanthatham, Nicolas De Coster, Adrián - Fab Lab León, Camila Luna, Claire: Lake Mac Libraries Fab Lab, Patrick - waag:□□

15:23:22 Von Luc Hanneuse an Alle: Question was raised in French FabLab Network about "usefull" sensor of air pollution in the differents FabLab room (for health & security). Formaldehyde with laser cutter ?

15:24:25 Von Rico Kanthatham an Alle: Replying to "pretty unruly class today": {AACEF29A-7B0F-4272-814F-7D4E1D5F6187}.png

15:25:34 Von Dylan Heneck an Alle: Screenshot2025_04_02_152529.jpg Camila Luna, Patrick - waag, Adrián - Fab Lab León, Þórarinn Bjartur Breiðfjörð Gunnarsson, Ricardo Marques, saheen palayi, Jesal Mehta, Norella Coronell, Amr Yaser Abdulrahiem:□□ Patrick - waag, Pablo Fab Lab Leon: □□

15:26:10 Von Luc Hanneuse an Alle: Replying to "Question was raised in French FabLab Network about...": Thanks

15:27:45 Von Claire: Lake Mac Libraries Fab Lab an Alle: Air quality sensing device performance evaluation methodology https://airquality-hub.seed.nsw.gov.au/sites/openair/files/2024-04/Sensing%20device%20performance%20evaluation%20methodology%20-%2020231207_SR202_Sensing-device-performance-evaluation-methodology_Version-1_Final.pdf Patrick - waag, Frosti Gíslason - Iceland- Vestmannaeyjar - Fab Lab:□□

15:27:59 Von Claire: Lake Mac Libraries Fab Lab an Alle: Replying to "Air quality sensing device performance evaluation ...": From here https://airquality-hub.seed.nsw.gov.au/best-practice-guide Patrick - waag, Frosti Gíslason - Iceland- Vestmannaeyjar - Fab Lab:□□

15:29:25 Von Rico Kanthatham an Alle: Aussie accent is the best! Claire: Lake Mac Libraries Fab Lab:□□

15:29:29 Von Adrián - Fab Lab León an Alle: https://smartcitizen.me/ Project from Barcelona Patrick - waag:□□

15:29:57 Von Ricardo Marques an Alle: Replying to "Aussie accent is the best!": keeping with the upside down theme

15:30:10 Von Luc Hanneuse an Alle: On specific 3D printing "air pollution" there was those studies https://onlinelibrary.wiley.com/toc/15309290/2017/21/S1 Patrick - waag:□□

15:30:15 Von Nicolas De Coster an Alle: usually : if you test them they work "ok", then you put them "in the field", and if you get them back in the lab then you realize how much they have drifted Claire: Lake Mac Libraries Fab Lab:□□

15:30:37 Von Rico Kanthatham an Alle: Replying to "Aussie accent is the best!": daaaaa-tah Rico Kanthatham:□□

15:31:05 Von Andri Sæmundsson - Fab Lab Reykjavik an Alle: https://aqicn.org/sensor/sds011/ air quality sensor Patrick - waag:□□

15:32:09 Von Forrest O. an Alle: Replying to "b383df5a391544eba871146584fe42a3c0d08489.png": əɯ oʇ ʇɥβiɹ sʞool ʇi ou Pablo Fab Lab Leon, Adrián - Fab Lab León, Nicolas De Coster, Rico Kanthatham, Ricardo Marques, ihlin, Claire: Lake Mac Libraries Fab Lab, Jhasmin Ayala Rojas, Dylan Heneck, Jorge Valerio - Fab Lab ESAN, Patrick - waag, Marius Araújo:□□

15:33:10 Von Forrest O. an Alle: Replying to "pretty unruly class today": □□ ənssi əuʇ əəs ʇ,uop i Patrick - waag:□□

15:33:53 Von Forrest O. an Alle: RISOGRAPH □□ Julian Silva:❤ Jesal Mehta:□□

15:33:59 Von Rico Kanthatham an Alle: "fall down seven times, get up eight"

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emphasizes resilience and perseverance in the face of adversity.
(Google AI)
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15:34:28 Von Dylan Heneck an Alle: Looks like patrick only got up 7 times Patrick - waag:□□

15:35:26 Von Ricardo Marques an Alle: their instagram is pretty neat https://www.instagram.com/pilchuckglassschool/ Julian Silva:□□

15:36:13 Von Rico Kanthatham an Alle: @Julian Silva If you like neon...check out this fantastic Hong Kong movie on the subject https://en.wikipedia.org/wiki/A_Light_Never_Goes_Out Julian Silva:❤

15:37:55 Von Ricardo Marques an Alle: that sounds like feeds and speeds issues

15:38:11 Von Adrián - Fab Lab León an Alle: https://youtu.be/KSs416dsgvY?si=38A78zUv-fa2TR3f

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Remember F.A.B.
Frosti Gíslason - Iceland- Vestmannaeyjar - Fab Lab:❤□
Milliam:□□□□
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15:38:17 Von Rico Kanthatham an Alle: Replying to "that sounds like feeds and speeds issues": Design Rules issues...almost no gap btwn traces

15:38:59 Von Rico Kanthatham an Alle: Replying to "https://youtu.be/KSs416dsgvY?si=38A78zUv-fa2TR3f ...": D.A.Y.G Adrián - Fab Lab León, Claire: Lake Mac Libraries Fab Lab:❤

15:42:43 Von henk an Alle: tapered bits 0.25mm https://www.amazon.com/Package-Assorted-Carving-3-175mm-Tungsten/dp/B01N7S00BH

15:43:15 Von Ricardo Marques an Alle: if anyone's wondering about what the "nano blue" coating might be on very cheap end-mills my research points to this https://www.platit.com/media/filer/2023/2023_naco.pdf Pablo Fab Lab Leon, Patrick - waag, Garrett Nelson:□□

15:44:32 Von Neil an Alle: https://fab.cba.mit.edu/classes/863.17/CBA/people/seanhickey/weeks/06-large-format-machining/

15:44:35 Von Nicolas De Coster an Alle: just find a usb port big enough Camila Luna, Julian Silva:□□ Patrick - waag, Pablo Fab Lab Leon:□□

15:44:48 Von Jorge - Fablab SCZ an Alle: The Upside Down Day

15:44:50 Von Jorge - Fablab SCZ an Alle: {1324A6FF-146A-4D14-AAB1-7EC7DC15AFEB}.png Marius Araújo:□□ Patrick - waag, Claire: Lake Mac Libraries Fab Lab, Þórarinn Bjartur Breiðfjörð Gunnarsson: □□

15:45:44 Von Adrián - Fab Lab León an Alle: I try this: https://es.aliexpress.com/item/1005006083229169.html?spm=a2g0o.order_list.order_list_main.29.6f63194dnZHdcy&gatewayAdapt=glo2esp Julian Silva:□□

15:45:47 Von Adrián - Fab Lab León an Alle: {CA4E62BB-9830-4D07-8787-577EE613B999}.png saheen palayi:❤

15:45:54 Von Adrián - Fab Lab León an Alle: Replying to "{CA4E62BB-9830-4D07-8787-577EE613B999}.png": https://es.aliexpress.com/item/1005006083229169.html?spm=a2g0o.order_list.order_list_main.29.6f63194dnZHdcy&gatewayAdapt=glo2esp

15:46:09 Von Pablo Fab Lab Leon an Alle: Super Julian!! Super nice! Adrián - Fab Lab León, Mkhitar Evoyan:❤ Rico Kanthatham:□□ Julian Silva:□□

15:46:16 Von Claire: Lake Mac Libraries Fab Lab an Alle: I want one

15:48:43 Von jakob an Alle: would this work better with two opposite electrodes (such as the force sensor adrian made) or does it work just as well with one?

15:49:01 Von Rico Kanthatham an Alle: @Julian Silva reach out to Tex Kang at the University of Pennsylvania fablab if you need help or ideas Adrián - Fab Lab León, Pablo Fab Lab Leon:❤ Julian Silva:□□

15:49:03 Von Rico Kanthatham an Alle: 2025-04-02 22_47_42-Skylab Workshop (Kamakura) (@skylabworkshop) • Instagram photos and videos.jpg Adrián - Fab Lab León, Norella Coronell, Lars Mattern - HRW Fablab, Ricardo Marques, Julian Silva, Patrick - waag, Claire: Lake Mac Libraries Fab Lab, Amr Yaser Abdulrahiem, DavidChan:❤

15:52:07 Von jakob an Alle: Replying to "would this work better with two opposite electrode...": okay thanks

15:52:45 Von Pablo Fab Lab Leon an Alle: no she is not... Patrick - waag:□□ Ricardo Marques:□□ Ricardo Marques, saheen palayi, Milliam, Adrián - Fab Lab León:□□

15:54:44 Von Nicolas De Coster an Alle: for throughholes with pads you don't really have the coice

15:54:47 Von Nicolas De Coster an Alle: choice*

15:58:32 Von henk an Alle: Replying to "no she is not...": bitmap.png Patrick - waag, Ricardo Marques, Norella Coronell, Lars Mattern - HRW Fablab, Milliam, Dylan Heneck:□□

16:02:24 Von Nicolas De Coster an Alle: We have a pretty young student today @Doaa El-Bess Ricardo Marques, Marius Araújo, Patrick - waag:□□ Adrián - Fab Lab León, Milliam, Marius Araújo, Doaa El-Bess, Eman Elkfrawy:□□

16:02:50 Von Ricardo Marques an Alle: Replying to "We have a pretty young student today @Doaa El-Bess...": hook'em while their young Amr Yaser Abdulrahiem, Eman Elkfrawy:□□ Patrick - waag:□□

16:03:53 Von Aalto Fablab an Alle: How about this 8x8 multizone ranger from inventory? https://www.digikey.com/en/products/detail/stmicroelectronics/VL53L5CXV0GC-1/14552424

16:05:32 Von Anna Sophia Brokuf an Alle: UWB DW3000 would be my favorite choice but those are quite expensive

16:07:26 Von Adrián - Fab Lab León an Alle: {6318BDA4-16E2-455A-80FA-71402932A39C}.png Salman:□□ Rico Kanthatham, Norella Coronell:□□

16:07:35 Von Salman an Alle: Replying to "UWB DW3000 would be my favorite choice but those a...": I believe you need multiple nodes around the space to achieve precise localization.

16:07:43 Von Lars Mattern - HRW Fablab an Alle: Well done, Anna !!! □□

16:08:14 Von Milliam an Alle: Replying to "UWB DW3000 would be my favorite choice but those a...": At least 3 saheen palayi:□□

16:08:31 Von saheen palayi an Alle: Replying to "UWB DW3000 would be my favorite choice but those a...": yes, 20 USD only, u need 3 of them at least to make it work properly as a location tracker

16:08:51 Von Anna Sophia Brokuf an Alle: Replying to "UWB DW3000 would be my favorite choice but those a...": Yes! That's one reason why I haven't ordered them yet

16:10:00 Von Salman an Alle: Replying to "UWB DW3000 would be my favorite choice but those a...": 202504021709550000.png

16:12:01 Von Nicolas De Coster an Alle: too high capcitance can get you out of USB specs if you intend to power from USB (will look like a short-circuit on connection) Rico Kanthatham:□□

16:12:31 Von Milliam an Alle: Replying to "UWB DW3000 would be my favorite choice but those a...": Why not work with camera? saheen palayi:□□

16:13:53 Von Ricardo Marques an Alle: Replying to "UWB DW3000 would be my favorite choice but those a...": they have a tendency of flipping the output Rico Kanthatham, Milliam:□□

16:14:20 Von Salman an Alle: Replying to "UWB DW3000 would be my favorite choice but those a...": Line of sight

16:15:30 Von Milliam an Alle: Replying to "UWB DW3000 would be my favorite choice but those a...": If it is for following you around....

16:16:24 Von bedoi an Alle: Edward Woodhouse

16:16:36 Von bedoi an Alle: sorry I was supposed to raise my hand at the start of calss

16:16:55 Von Ricardo Marques an Alle: still muted Edward

16:17:11 Von bedoi an Alle: ok

16:18:48 Von saheen palayi an Alle: logic level shifter ** Adrián - Fab Lab León:❤

16:19:07 Von Rico Kanthatham an Alle: extra extra credit for Ashish! Adrián - Fab Lab León, Frosti Gíslason - Iceland- Vestmannaeyjar - Fab Lab, Camila Luna, Superfablab Kochi:❤

16:19:52 Von Milliam an Alle: Replying to "extra extra credit for Ashish!": 10 points to Kerala

16:20:25 Von Sam an Alle: You could also make a voltage divider to keep the signal intergrity

```
https://en.wikipedia.org/wiki/Voltage_divider
```

16:20:53 Von Pablo Fab Lab Leon an Alle: Replying to "extra extra credit for Ashish!": Super Superfablab Kochi

16:21:57 Von saheen palayi an Alle: I2S Decoder chip(PT8211) + Amp LM4861

16:22:25 Von Rico Kanthatham an Alle: Replying to "extra extra credit for Ashish!": kudos to super instructor @saheen palayi! Superfablab Kochi:□□ Milliam, Pablo Fab Lab Leon:□□ Superfablab Kochi: □□

16:22:58 Von saheen palayi an Alle: Replying to "I2S Decoder chip(PT8211) + Amp LM4861": some issues with ESP32 S3 , we will try with MAX98357

16:24:51 Von Marius Araújo an Alle: Replying to "I2S Decoder chip(PT8211) + Amp LM4861": Max98357 worked fine for me, with the ESP32-WROOM-32E

16:24:50 Von Adrián - Fab Lab León an Alle: Go Koharu!!! Ricardo Marques:□□ saheen palayi, Milliam, Hiroe Takeda:□□

16:24:57 Von Rico Kanthatham an Alle: great Namita!! Superfablab Kochi:❤

16:26:04 Von Rico Kanthatham an Alle: fall down 7...get up 8 Claire: Lake Mac Libraries Fab Lab, Marius Araújo, Frosti Gíslason - Iceland- Vestmannaeyjar - Fab Lab, Jesal Mehta, Naoki Hayashi:❤ Patrick - waag, Pablo Fab Lab Leon, Adrián - Fab Lab León, Marius Araújo, Kazutoshi Tsuda, saheen palayi, Lars Mattern - HRW Fablab:□□

16:26:53 Von Evert an Alle: ONLY 7 times

16:26:57 Von Evert an Alle: ??

16:27:21 Von Rico Kanthatham an Alle: Omedettoh Koharu-chan! Adrián - Fab Lab León, Claire: Lake Mac Libraries Fab Lab:□□

16:28:29 Von Rico Kanthatham an Alle: 4pm or 4am?

16:28:47 Von Albert - Reykjavik an Alle: I tried making a motor controller, board still failing. Probably soldering issue with 8251. Still somewhere in the seven falls stage

16:29:03 Von Ricardo Marques an Alle: Replying to "ONLY 7 times": get up X+1 when X is number of falls Rico Kanthatham, Doaa El-Bess:□□

16:29:08 Von Jesal Mehta an Alle: Replying to "4pm or 4am?": pm, likely, since it's 6.30 pm here when we begin

16:29:40 Von saheen palayi an Alle: he forgot reverse protection diode for the DC motor connect to drive dc motor , burned the Mosfet and the t1614 , lot of learning to Akash □□ Adrián - Fab Lab León:❤

16:30:12 Von Claire: Lake Mac Libraries Fab Lab an Alle: Replying to "fall down 7...get up 8": we need this on a T-shirt :) Adrián - Fab Lab León:□□

16:30:58 Von Patrick - waag an Alle: For the biobreak

```
If anyone like music made by motors, here is the floppotron

floppy readers, DVD readers & co
making music

could be a final project too

https://www.youtube.com/watch?v=kCCXRerqaJI
Claire: Lake Mac Libraries Fab Lab, Rico Kanthatham, Marius Araújo:❤□
shintaro ito: node japan kannai:□□
Jesal Mehta, Svavar Konradsson Fab Lab Isafjordur:□□
```

16:31:01 Von Superfablab Kochi an Alle: Replying to "4pm or 4am?": 4 PM!

16:31:47 Von Ricardo Marques an Alle: Replying to "4pm or 4am?": Austrália are the madlads that stick around til AM Marius Araújo, Patrick - waag:□□ Jesal Mehta, Patrick - waag:□□

16:32:23 Von Adrián - Fab Lab León an Alle: □□ FAB Month 2025 - Join the Celebration! □□

```
The 2nd edition of FAB Month is here! Join us on April 4th for a month-long online event,
celebrating 25 years of Fab Labs. □□
```

□□Speakers:

□•□Rico Kanthatham: Regenerating Neighborhood Perspectives

□•□Martine Basaninyange: Sustainable 3D Printing from Kigali

□•□Jair Jesus León Lucano: MiniFabLabs Empowering Rural Communities

□•□Adriana Cabrera & Enrico Bassi: FabCare

□•□Mats Derißen: Digital Twins for Analog Municipalities

□•□Maximino Matus Ruiz: Bridging Knowledge Across Generations

□•□Pamela Villanueva: La Escuela de los Oficios

□•□Nils Kreft: Building a Sustainable FAB Region

□•□Roberto Gallo: FabAcademy in Ecuador

□•□Tom Sobolev: Fab Lab Production & Training in Russia

□□Register Now: https://fabfoundation-org.zoom.us/meeting/register/I3PyO3izT_qWsEZStCzwfw#/registration

Let’s come together to share knowledge, foster collaboration, and celebrate innovation! □□ Norella Coronell:□□

16:34:38 Von shintaro ito: node japan kannai an Alle: Replying to "For the biobreak If anyone like music made by mot...": FLOPPOTRON is awesome!

16:35:26 Von Claire: Lake Mac Libraries Fab Lab an Alle: Replying to "For the biobreak If anyone like music made by mot...": Loving that there is a "The Final Countdown" video https://www.youtube.com/watch?v=e-WakfBNHD0&ab_channel=Pawe%C5%82Zadro%C5%BCniak

16:36:19 Von shintaro ito: node japan kannai an Alle: Replying to "For the biobreak If anyone like music made by mot...": Have all the floppy drives in the world been recovered here?□□ Patrick - waag:□□

16:39:26 Von Jesal Mehta an Alle: Replying to "For the biobreak If anyone like music made by mot...": @shintaro ito: node japan kannai sounds like it ! shintaro ito: node japan kannai:□□

16:40:58 Von Claire: Lake Mac Libraries Fab Lab an Alle: Replying to "For the biobreak If anyone like music made by mot...": I think you can still find some at Hard Off Akihabara on the junk floor shintaro ito: node japan kannai:□□

16:42:40 Von Marius Araújo an Alle: Replying to "For the biobreak If anyone like music made by mot...": All minus at least 3 that I have somewhere

16:42:47 Von Marius Araújo an Alle: Replying to "For the biobreak If anyone like music made by mot...": Plus zip drives

16:49:00 Von Pablo Fab Lab Leon an Alle: on and in the right hemisphere... Marius Araújo:□□

16:49:04 Von fab an Alle: we are missing a webcam today here Patrick - waag, Marius Araújo, shintaro ito: node japan kannai:□□ Patrick - waag, Claire: Lake Mac Libraries Fab Lab, Jorge Valerio - Fab Lab ESAN:□□

16:54:18 Von Dylan Heneck an Alle: Screenshot 2025-04-02 at 16.54.12.jpg Wangzom:□□ Patrick - waag, Pablo Fab Lab Leon, Rico Kanthatham, Claire: Lake Mac Libraries Fab Lab, Norella Coronell, Ricardo Marques, Adrián - Fab Lab León, Marius Araújo:□□

16:54:37 Von Dylan Heneck an Alle: Thanks haha

17:04:27 Von Jóhannes an Alle: SDI-12 is an example of a single line asynchronous serial protocol

17:05:16 Von Ricardo Marques an Alle: having too many pull ups can cause problems, if every board has them

17:06:57 Von saheen palayi an Alle: Replying to "having too many pull ups can cause problems, if ev...": Advice:-, only do the pull up at the master / mother board , if using multiple nodes

17:07:13 Von Joshua an Alle: how much latency do I get if I want to light up two LEDs on two different boards connected with hop-count/board-hop

17:08:07 Von Andri Sæmundsson - Fab Lab Reykjavik an Alle: Replying to "having too many pull ups can cause problems, if ev...": Do I not need resistors on every node?

17:09:04 Von jakob an Alle: regarding synchronous: one could also use some encoding techniques where you can put the duration of a bit into the signal:

```
https://en.wikipedia.org/wiki/Coded_mark_inversion


I dont know if the explanation on wikipedia is understandable. i understood it from a slide
from one of our lectures:
```

17:09:07 Von jakob an Alle: 2025-04-02__17-06-48.jpg

17:09:11 Von ferdi an Joshua (Direktnachricht): Hallo! Wann kommst Du mal wieder?

17:09:24 Von Ricardo Marques an Alle: Replying to "having too many pull ups can cause problems, if ev...": no, only a pair is generally enough. when using comercial breakouts it can even start causing problems, even though it only goes out of spec when having 2-4 pais of pull ups on the same bus. accounting for 5-10k resistors

17:09:34 Von Adrián - Fab Lab León an Alle: Replying to "having too many pull ups can cause problems, if ev...": https://fabacademy.org/2020/labs/leon/students/adrian-torres/week14.html#hello_i2c saheen palayi:□□

17:10:25 Von jakob an Alle: Replying to "2025-04-02__17-06-48.jpg": one can think of "-" as -1v and "+" as +1v.

17:10:49 Von Ricardo Marques an Alle: if anyone has problems with i2c I have some documentation on debugging it. https://fabacademy.org/2022/labs/fct/students/ricardo-marques/assignments/week11-2/

17:11:07 Von Ricardo Marques an Alle: Replying to "if anyone has problems with i2c I have some docume...": i don't go into differential pais cause that needs special chips https://en.wikipedia.org/wiki/Differential_signalling

17:11:13 Von jakob an Alle: Replying to "2025-04-02__17-06-48.jpg": the keyword is "clock extraction" or "self-synchronizing". there are multiple codes that have this property. cmi is just an example.

17:11:23 Von Ricardo Marques an Alle: Replying to "if anyone has problems with i2c I have some docume...": and eye diagrams that need a fancyish osciloscope https://en.wikipedia.org/wiki/Eye_pattern

17:14:17 Von Sophia (Node Ilmenau) an Alle: Replying to "if anyone has problems with i2c I have some docume...": Can we use that code for I2C if we want to convert a non I2C in one that is capable to communicate that way? Is there sth comparable for SPI?

17:15:24 Von Adrián - Fab Lab León an Alle: Replying to "if anyone has problems with i2c I have some docume...": Here you can find all the documentation with an example of I2C: https://fabacademy.org/2020/labs/leon/students/adrian-torres/week14.html#hello_i2c

17:16:07 Von Joshua an ferdi (Direktnachricht): Ich hoffe nächste Woche. Ich muss grade viel für meinen eSport Verein machen.

17:16:31 Von Jeremy Losaw an Alle: oooo, so a DSLR would use SPI to write raw files to onboard sd?

17:16:37 Von Ricardo Marques an Alle: Replying to "if anyone has problems with i2c I have some docume...": bit banging is making chips do things they don't have hardware peripherals for. Neil has some code to get chips that don't do i2c or other protocols. Somewhere in my documentation I have a clip of someone that bit-bangged ethernet on a tiny 85 which is beyond insanity... Patrick - waag:□□ Marius Araújo:□□□□

17:17:02 Von jakob an Alle: Replying to "Screenshot 2025-04-02 at 16.54.12.jpg": ξ Pablo Fab Lab Leon, Dylan Heneck, Marius Araújo, Adrián - Fab Lab León, Kazutoshi Tsuda, Patrick - waag, Ricardo Marques, Claire: Lake Mac Libraries Fab Lab:□□

17:17:19 Von ferdi an Joshua (Direktnachricht): Ok! Bis bald!

17:17:42 Von saheen palayi an Alle: Replying to "oooo, so a DSLR would use SPI to write raw files t...": Prusa i3 3d printer uses SPI to get the G-code to run the machine. from the SD Patrick - waag,

Rico Kanthatham:□□ Matthias:□□

17:18:11 Von Steven an Alle: Arduino SPI library - https://docs.arduino.cc/language-reference/en/functions/communication/SPI/

```
Your link, change spi to SPI.
```

17:18:28 Von Adrián - Fab Lab León an Alle: Replying to "if anyone has problems with i2c I have some docume...": That's why my documentation has easier-to-understand code and programs than Neil's. Pablo Fab Lab Leon:□□ Patrick - waag:□□ Patrick - waag:□□

17:18:31 Von Marius Araújo an Alle: Replying to "Screenshot 2025-04-02 at 16.54.12.jpg": ksi

17:20:29 Von jakob an Alle: Replying to "Screenshot 2025-04-02 at 16.54.12.jpg": 𓀀

17:20:43 Von jakob an Alle: Replying to "Screenshot 2025-04-02 at 16.54.12.jpg": https://lingojam.com/CursedText

17:21:30 Von Andri Sæmundsson - Fab Lab Reykjavik an Alle: How would you network two or more Xiao RP2040 stepper boards to synchronize their motors?

17:22:08 Von Claire: Lake Mac Libraries Fab Lab an Alle: Replying to "Screenshot 2025-04-02 at 16.54.12.jpg": {72C4968D-79D9-41ED-8C9F-184C72C7F1E0}.png Patrick - waag:□□

17:22:17 Von Ricardo Marques an Alle: slightly on topic: someone made a look up table to bitbang ethernet on a tiny85 https://youtu.be/LnqqvVp_UZg?si=SVsbiEGr0olN4SOK&t=1274

17:24:31 Von Jani Ylioja an Alle: Replying to "How would you network two or more Xiao RP2040 step...": Sampo if it suits or python. Which ever is your taste :) Andri Sæmundsson - Fab Lab Reykjavik:□□

17:27:32 Von Patrick - waag an Alle: 801e48e5c0b877760dfd8f326a96170c.jpg Camila Luna, Ricardo Marques, Adrián - Fab Lab León, Claire: Lake Mac Libraries Fab Lab, ihlin, saheen palayi, Marius Araújo:□□ Delia Millán | Spain| 2022:□□

17:33:04 Von Steven an Alle: Networking is full of TLAs and eTLAs - Three Letter Acronyms & extended Three Letter Acronyms. □□ Patrick - waag:□□ saheen palayi, Adrián - Fab Lab León, Pablo Fab Lab Leon:□□

17:34:09 Von shintaro ito: node japan kannai an Alle: @Neil Let me ask a question that I think is related to networking and communications. Tarlogic has announced that 29 vendor-specific, undisclosed, hidden commands have been found in the ESP32, which is well known for its wireless communication capabilities, and can be hacked using HCI commands. We understand that there is a trade-off between convenience and security, but we would like to eventually develop products that communicate wirelessly, and security is a very important issue for our business. (How much of the responsibility lies with the manufacturer remains to be seen...□□). ESP is very useful ,so, it is very sad that we cannot use it, but shouldn't we use it? I would be very grateful if you could tell us

what you think at this point.

```
https://www.tarlogic.com/blog/hacking-bluetooth-the-easy-way-with-esp32-hci-commands-and-hidden-features/

More Details
https://www.tarlogic.com/blog/esp32-hidden-hci-vendor-commands/
Patrick - waag, Oscar, saheen palayi:□□
```

17:36:08 Von henk an Alle: @shintaro ito: node japan kannai read this: https://hackaday.com/2025/03/10/the-esp32-bluetooth-backdoor-that-wasnt/ shintaro ito: node japan kannai, Patrick - waag:□□ shintaro ito: node japan kannai:□□

17:38:02 Von Patrick - waag an Alle: wasn't internet invented to check up on a coffe machine ?□□ Camila Luna:□□

17:38:05 Von Sam an Alle: Status code 418

17:38:23 Von Ricardo Marques an Alle: Replying to "wasn't internet invented to check up on a coffe ma...": 1st webcam? Patrick - waag:□□

17:38:27 Von Magnús - Reykjavík an Alle: Replying to "wasn't internet invented to check up on a coffe ma...": If I recall correctly that was the webcam Patrick - waag:□□

17:38:28 Von Steven an Alle: Fun fact - Hedy Lamarr, a famous Hollywood actruss, co-invented frequency hopping spread spectrum tech in 1942. □□ Patrick - waag:□□ Pablo Fab Lab Leon:□□

17:38:39 Von jakob an Alle: there also is a standard for telling devices which IP addresses they have (DHCP) using pegs

```
https://de.wikipedia.org/wiki/Peg_DHCP
```

17:38:48 Von jakob an Alle: Replying to "there also is a standard for telling devices which...": might be useful for lan parties ;)

17:39:06 Von Sam an Alle: Replying to "Status code 418": https://developer.mozilla.org/en-US/docs/Web/HTTP/Reference/Status/418

17:40:45 Von henk an Alle: Replying to "there also is a standard for telling devices which...": 1st used at a hackercamp in the netherlands in 1997.

17:42:11 Von jakob an Alle: Replying to "there also is a standard for telling devices which...": how did it actually make it into the rfc? didnt it start as some april's fools joke or was it an actual thing?

17:42:47 Von jakob an Alle: Replying to "there also is a standard for telling devices which...": nvmd its mentioned on wikipedia

17:44:23 Von saheen palayi an Alle: Speaking of radios :) Any HAM □□ folks? VU3PLW □□

17:48:58 Von Jóhannes an Alle: Do you have any experience/example for ESP32 with 4G LTE communication?

17:50:45 Von Ricardo Marques an Alle: some stickers have just the chip/antenna

17:52:16 Von saheen palayi an Alle: Replying to "Do you have any experience/example for ESP32 with ...": I've seen 4G LTE modules done by SIMCom , u can get it around 15 USD Eg:- https://www.amazon.in/A7670C-LNNV-SIMCom-Module-Breakout-Board/dp/B0DTJ9RKZG?source=ps-sl-shoppingads-lpcontext&ref_=fplfs&psc=1&smid=A2JDRZEGU1IDE2

17:52:50 Von saheen palayi an Alle: Replying to "Do you have any experience/example for ESP32 with ...": https://www.simcom.com/module/4g.html

17:53:05 Von Ricardo Marques an Alle: in theory the 13.56 chips all have a unique ID, but a lot of chips don't have a lock on that data and can be overwritten to look like other cards.

```
good if you want to just clone one of own chips, not great for security
```

17:53:07 Von Jóhannes an Alle: Replying to "Do you have any experience/example for ESP32 with ...": I have this one, but struggling with it. https://www.waveshare.com/esp32-s3-sim7670g-4g.htm

17:54:17 Von Jani Ylioja an Alle: https://store.arduino.cc/en-fi/products/4g-module-emea?srsltid=AfmBOopBGpcKcHJ8rdtlTXasC7w369dhJVV2GrwcM6rZNsV12IBUivZU

17:54:30 Von henk an Alle: there will be a meshtastic mesh party at fab25 :) Andri Sæmundsson - Fab Lab Reykjavik, Jani Ylioja:□□ Adrián - Fab Lab León:□□ saheen palayi, Patrick - waag:□□ Ricardo Marques:□□ Rico Kanthatham:□□

17:54:52 Von Jani Ylioja an Alle: Replying to "https://store.arduino.cc/en-fi/products/4g-module-...": Arduino 4G

17:58:13 Von Adrián - Fab Lab León an Alle: Remember, Global Open Time returns this Saturday at 10:00 AM Boston Time. More info: https://chat.academany.org/fabacademy-2025/channels/global-open-time

17:58:17 Von jakob an Alle: there is an association on campus in ilmenau called FeM doing the network in the student dorms. they have run their access points long time on openWRT.

```
they also started to stream talks from the chaos congresses and the video operation center
originated from it.
```

17:58:35 Von saheen palayi an Alle: Replying to "https://store.arduino.cc/en-fi/products/4g-module-...": Expensive!!

17:59:04 Von Ricardo Marques an Alle: if anyone wants to play around with openwrt shout out to these small travel routers https://www.amazon.es/dp/B0BPSGJN7T

```
They run openwrt from factory with a custom interface but if you just want to use ssh or LuCi
you can flash the latest version directly
saheen palayi:❤
```

18:00:04 Von Evert an Alle: Is Lora and Lorawan the same

18:00:05 Von saheen palayi an Alle: Replying to "if anyone wants to play around with openwrt shout ...": this one is cool

18:00:53 Von Matthias an Alle: https://mioty-alliance.com/mioty-global-summit-nuremberg-2025/

18:01:11 Von Ricardo Marques an Alle: Replying to "if anyone wants to play around with openwrt shout ...": ay, they even have a physical button. i've been trying to configure it to switch WAN isolation on and off depending if i'm using it in my network or somewhere else

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