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Quotes

- Neil Week 2, 2025: 1:11:49 "And so asking which one to use is like asking who you should date"
- Neil Week 2, 2025: "For engineering advices AI is almost always almost right." - Neil
- Neil Week 7, 2025: minute 30 "If you're on windows, I strongly recommend using the Linux subsystem..."
- Neil Week 8, 2025: 16:50 "I like PNGs"
- FA Chat: "Who needs Git when you have OneDrive?"
- Ferdi: "Das verfluchte Outlook"
- (Somebody mumbles something non-understandable) Neil: "Okay"

Funny Things

<http://archive.fabacademy.org/2019/labs/waag/machine.mp4>

Literature

Books

- Paul Horowitz, Winfield Hill - The Art of Electronics
- Neil Gershenfeld - FAB: The Coming Revolution on Your Desktop
- <http://cba.mit.edu/docs/papers/12.09.FA.pdf>
- The Mythical Man Month; The Mythical Man-Month: Essays on Software Engineering by Frederick P. Brooks Jr. | Goodreads
- Getting Things Done: The Art of Stress-Free Productivity by David Allen | Goodreads
- A system to organise your life • Johnny.Decimal
- Open Circuits

Do not use these resources:

- <https://annas-archive.org/>
- <https://sci-hub.st/>

Papers

- Kathrin Smolarczyk - Let's get them on board
- Spiral Development for Non-Software Product and System Engineering
- Engineered Wood, conducting, glowing etc

Class Times & Data

Global Class

Wednesdays at 15:00 - 18:00 CET

This is the link to the class videoconference and to the recitations:

The very secure password is 1234

Local Classes

Local Class	Date	Time	Lecturer
<u>website with git</u>	23.01.2025	9h CET	Ferdi
<u>Wednesday after class</u>	29.01.2025	18h CET	Ferdi
<u>FreeCAD</u>	31.01.2025	11h CET	Babken
<u>Blender</u>	30.01.2025	12h CET	Ferdi
<u>Fusion 360</u>	30.01.2025	14h CET	Saco
<u>imagemagick and ffmpeg</u>	30.01.2025	16h CET	Henk
<u>Codium, Inkscape, Gimp</u>	03.02.2025	9h CET	Ferdi
<u>FreeCADlego.pdf</u>	04.02.2025	14h CET	Ferdi
<u>Computer controlled cutting</u>	06.02.2025	09h CET	Ferdi
<u>blender 2</u>	10.02.2025	13h CET	Ferdi

FabAcademy bootcamp

<https://academany.fabcloud.io/fabacademy/2025/bootcamp-students/>

Monday 20.1.2025 15-18h CET and
Tuesday 20.1.2025 15-18h CET
<http://fabacademy.org/2021/video.html>
<https://zoom.us/j/89416278965>

Regional review

Area: North Europe

Labs: AgriLab, Amsterdam - Waag, Kamp-Lintfort, ULB, Armenia, TU-Ilmenau

Mentor: Henk, Luc, Ahmed, Nicolas, Ferdi, Babken

When: Every Wednesday, 13:00 CET

Where: <https://us06web.zoom.us/j/96419721473>

Mattermost Group: <https://chat.academany.org/fabacademy-2025/channels/regional-europe---amsterdam---agrilab---dilijan>

MCU (always available video channel)

<http://fab.academany.org/2020/mcu.html> or:
<https://zoom.us/j/9699009392>

Global open time

Labs: All the world

Mentor: Rico, Pablo, Adrián

When: Every Saturday at 10:00 EDT 16:00 CET 15:00 GMT for 1 hour.

Where: MCU Zoom. meeting ID: 969-900-9392 password: 1234

Mattermost Group: <https://chat.academany.org/fabacademy-2025/channels/global-open-time>

Instructor bootcamp

Monday-Friday Jan 13-17, in-person in Peru and by video in the class conference:

meeting ID: 894 1627 8965, password: 1234\
can connect via browser: <http://fabacademy.org/2025/video.html>

or: [https://zoom.us/j/89416278965\](https://zoom.us/j/89416278965)

or app: [https://zoom.us/download\](https://zoom.us/download)

or phone: +1 (669) 900-6833

<https://gitlab.fabcloud.org/academany/fabacademy/2025/bootcamp-instructors>

CET = Central European Time = Ilmenau time

Bookmarks

Fablab

Our TU Ilmenau website on fabacademy.org:

<https://fabacademy.org/2025/labs/ilmenau/>

The general website of fabacademy 2025:

<https://fabacademy.org/2025/>

The inventory of everything a fablab needs:

<https://inventory.fabcloud.io/>

Students

Benedikt

Jakob

Jarni

Matthias

Niclas

Richard

Sophia

Joshua

VSCode

[Download packages from marketplace](#)

Icons

These are the icons we want to set as cover images for each week. they still need to be downloaded and prepared.

Note that attribution is required. For that you can create a separate page "Attribution" in every week containing the attribution text.

bootcamp

project management & web dev

parametric design

computer controlled cutting

embedded programming

3d printing

electronics design

computer controlled machining

electronics production

Input devices

output devices

molding casting

application programming

networking

system integration

wildcard

intellectual property

Tutorials

How to configure Carvera for Fusion on Windows:

How to install ffmpeg on Windows:

https://academy.cba.mit.edu/classes/computer_design/video.html

Knigge

only underline things that aren't underlined yet

Software

2D

- GIMP
- BIMP
- Inkscape + Plugins
- LibreCAD
- DraftSight
- Mypaint
- Scribus
- xnconvert

3D

- Blender + Plugins
- FreeCAD + Plugins
- Rhino 7 + Plugins
- Sketchup
- Kokopelli
- Antimony
- Fusion360
- OpenScad
- Meshlab
- OnShape
- Monolith
- MagicaVoxel
- Meshmixer

Video

- Handbrake
- Kdenlive
- DaVinci Resolve
- OBS Studio

- [VLC](#)

Audio

- [Audacity](#)

Elektronik

- [winavr](#) oder
- [zadig](#)
- [avrdude](#)
- [Fritzing](#)
- [Arduino](#)
- [KiCad](#)
- Eagle
- NGSpice / TCLSpice
- [InteractiveHtmlBom](#)

Programmierung

- [VSCodium](#)
- [vscode-paste-image](#)
- [Processing](#)

Internet

- [Chromium](#)

CAM

- Fab-modules / [Mods](#)

3D-Scanning

- Meshroom

3D-Drucken

- Cura
- Slic3r
- Repetier host
- Skeinforge
- OctoPrint
- Prusaslicer

Tools

- Universal Gcode Sender
- Universal Gcode Platform
- 7zip
- git
- Atmel GNU Toolchain
- GNU Make
- Slack
- Vokoscreen
- Acrobat reader
- Skype
- Zoom
- Unity
- ffmpeg gui --> 3 Graphical-User-Interface-Applications-using-FFmpeg for the CLI-lovers
- ImageMagick
- Slicer (Fusion)
- Modela Player
- CAMotics
- UVTools

Compiler

- gcc
- Atmel Studio
- Eclipse + AVR
- Firefly
- Scratch
- PureData
- Python + Module (NumPy, SciPy, matplotlib, Tk, Tkinter...)

- FlatCAM

Online

- photopea

Andere

- Simplify3D
- Rhino
- Solidworks
- XDesign
- Netzwerkfreigabe
- Ftdi Treiber path variable pointing to avr8-gnu-toolchain, GnuWin32, avrdude

weeks

week	date	topic
week01	22.01.2025	principles and practices, presentations, introductions , project management
week02	29.01.2025	computer-aided design
week03	05.02.2025	computer-controlled cutting
week04	12.02.2025	embedded programming
week05	19.02.2025	3D scanning and printing
week06	26.02.2025	electronics design
week07	05.03.2025	computer-controlled machining
week08	12.03.2025	electronics production
week09	19.03.2025	input devices
week10	26.03.2025	output devices
week11	02.04.2025	networking and communications
week12	09.04.2025	mechanical design, machine design
week13	23.04.2025	molding and casting
week14	30.04.2025	interface and application programming
week15	07.05.2025	system integration
week16	14.05.2025	wildcard week
week17	21.05.2025	applications and implications, project development
week18	28.05.2025	invention, intellectual property, and income
week19	02.06.2025	weekly assignments deadline
week20	09.06.2025	final project presentations