

Erfahrungsbericht zum Blockmodul Physical Computing

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DIY/DIWO, Studierende phycom FS26



[Source](#) auf GDocs



Interdisziplinäres Blockmodul

3 ECTS, 2 Wochen à 5 Tage, HTU und HSI

Inhaltsübersicht

Physical Computing verknüpft einfache Elektronik, Programmierung, digitale Fabrikation und Design auf kreative Weise zu interaktiven Systemen - vom Game-Controller bis zur Kunst-Installation - Do it Yourself / with Others! Ein interdisziplinärer Blockkurs, inklusive Prototyping mit 3D-Drucker, Laser und Lötkolben.

Einfache, klare Regeln

Pass/fail, Präsenz und Absenz

Presence

- > Students are expected to be present for the entire two weeks
- The course consists of inputs and hands-on making sessions
- We will use specific tools available in a typical makerspace
- We count on you all to share your experience/perspective

Absence

- Max 3 "joker" hours
- Have a good reason
- Ask us in advance
- Get confirmation
- Make up for it

Ein Thema/Skillset pro Tag

Jeweils 3h Input, 5h Making; 9 - 18 Uhr

Program Week 1

Day	Input	Making
Mon	Intro & DIY-Electronics	Soldering
Tue	Embedded Programming	Tinkering
Wed	Design & Ideation	Prototyping
Thu	Digital Fabrication in 2D	Laser-cutting
Fri	Digital Fabrication in 3D	3D-printing

Program Week 2

Day	Input	Making
Mon	PCB-Layout	Production
Tue	Documentation & Sharing	Exploring
Wed	DIY-Project Kick-off	Working
Thu	DIY-Project Inputs	Working
Fri	DIY-Project Inputs	Presenting

Aufwändige Vorbereitung

Materiallisten, Budgets, Lieferfristen

FH NW phycom FS26										
A		B	C	D	E	F	G	H	I	J
1	FH NW phycom FS26			N Students		26				
2										
3	Shop	Topic	Category	Per N Students	Absolute	Available	Needed	Status	Who	Description
4	Adafruit.com									URL
5		DIY-Electronics & Soldering	Material	2	13		13	Delivered	M. Brenn	Jumper M-M (20)
6		DIY-Electronics & Soldering	Material	5	5	5	0	Not needed		LEDs (25)
7		DIY-Electronics & Soldering	Material	2	13		13	Delivered	M. Brenn	Buttons (20)
8		DIY-Electronics & Soldering	Material	1	26		26	Delivered	M. Brenn	Piezo Element
9		DIY-Electronics & Soldering	Material	1	26		26	Delivered	M. Brenn	Piezo Buzzer PS1240
10		DIY-Electronics & Soldering	Tools	2	13		13	Delivered	M. Brenn	Solder mat 34x23cm
11		Embedded Programming	Material	1	26	19	7	Delivered	M. Brenn	Microcontroller
12	AliExpress.com									
13		DIY-Electronics & Soldering	Tools	0	0		0	Not needed		QUICKO MINI T12-942 Lötstation
14	Bastelgarage.ch									
15		DIY-Electronics & Soldering	Material	1	26		26	Delivered	M. Brenn	USB Micro Breakout
16		DIY-Electronics & Soldering	Material	6	4		4	Ordered by	M. Brenn	USB Mini Breakout
17		DIY-Electronics & Soldering	Material	6	4		4	Delivered	M. Brenn	USB DIP Breakout
18		DIY-Electronics & Soldering	Material	2	13		13	Delivered	M. Brenn	Crocodile Clips
19		DIY-Electronics & Soldering	Material	0	0		0	Not available	M. Brenn	18650 Lithium-Battery-Holder
20		DIY-Electronics & Soldering	Material	3	9		9	Delivered	M. Brenn	Servo S90
21		DIY-Electronics & Soldering	Material	3	9		9	Delivered	M. Brenn	Servo MG90S
22		DIY-Electronics & Soldering	Material	3	9		9	Delivered	M. Brenn	Stepper Motor incl. Driver
23		DIY-Electronics & Soldering	Material	2	13	13	0	Available via	@tamberg	18650 Battery
24	Conrad.ch									
25		DIY-Electronics & Soldering	Material	1	26		26	Delivered	M. Brenn	Breadboard
26		DIY-Electronics & Soldering	Material	2	13	15	0	Available via	@tamberg	Breadboard 1/2
27		DIY-Electronics & Soldering	Material	0	0	15	0	Available via	@tamberg	3 * AA Battery Holder
28		DIY-Electronics & Soldering	Material	26	1		1	Delivered	M. Brenn	Shrink Tubes Assorted
29		DIY-Electronics & Soldering	Material	13	2		2	Delivered	M. Brenn	LEDs Assorted
30		DIY-Electronics & Soldering	Material	8	3		3	Delivered	M. Brenn	Resistors Assorted
31		DIY-Electronics & Soldering	Material	26	1		1	Delivered	M. Brenn	Ceramics Capacitors Assorted
32		DIY-Electronics & Soldering	Material	26	1		1	Delivered	M. Brenn	Thinfilm Capacitors Assorted
33		DIY-Electronics & Soldering	Material	13	2		2	Delivered	M. Brenn	Electrolyte Capacitors Assorted
34		DIY-Electronics & Soldering	Material	0	0		0	Not now		LDR
35		DIY-Electronics & Soldering	Material	8	3		3	Delivered	M. Brenn	Solder 0.8
36		DIY-Electronics & Soldering	Material	8	3		3	Delivered	M. Brenn	Solder 0.5
37		DIY-Electronics & Soldering	Material	4	7		7	Delivered	M. Brenn	Solder stick
38		DIY-Electronics & Soldering	Tools	4	7		7	Delivered	M. Brenn	Soldering lamp
39		DIY-Electronics & Soldering	Tools	0	0		0	Not now		Smoke vent
40		DIY-Electronics & Soldering	Tools	1.7	15		15	Delivered	M. Brenn	Helping hands
41		DIY-Electronics & Soldering	Tools	4	7		7	Delivered	M. Brenn	Cutters & Pliers (4)
42		DIY-Electronics & Soldering	Tools	0	0		0	Not now		Tweezers (5)
43		DIY-Electronics & Soldering	Tools	4	7		7	Delivered	M. Brenn	Multimeter

WAYBILL DOC

Not to be attached to package - Hand to Courier
2026-06-03 (Reproduction) / 2026-06-03 (Date)

PPD

DHL

Shipper:

blinkyparts.com Timo Schindler
N/A
Egerstr. 9
Regensburg 8105
SWITZERLAND

Contact:
N/A/01111111111

Reference: CA936865533DE

Receiver:

FachHS Nordwestschweiz Martin Brenn
N/A
Bahnhofstrasse 6
Windisch 5210
SWITZERLAND

Contact:
N/A
01111111111

CH-ZRH-ZRH CH-ZRH-ZRH

Product Details:

[9] Parcel Product ()

Features / Services (Service Code)

Shipment Details

Account No: 214492051
Ref Code: CA936865533DE

5.2C



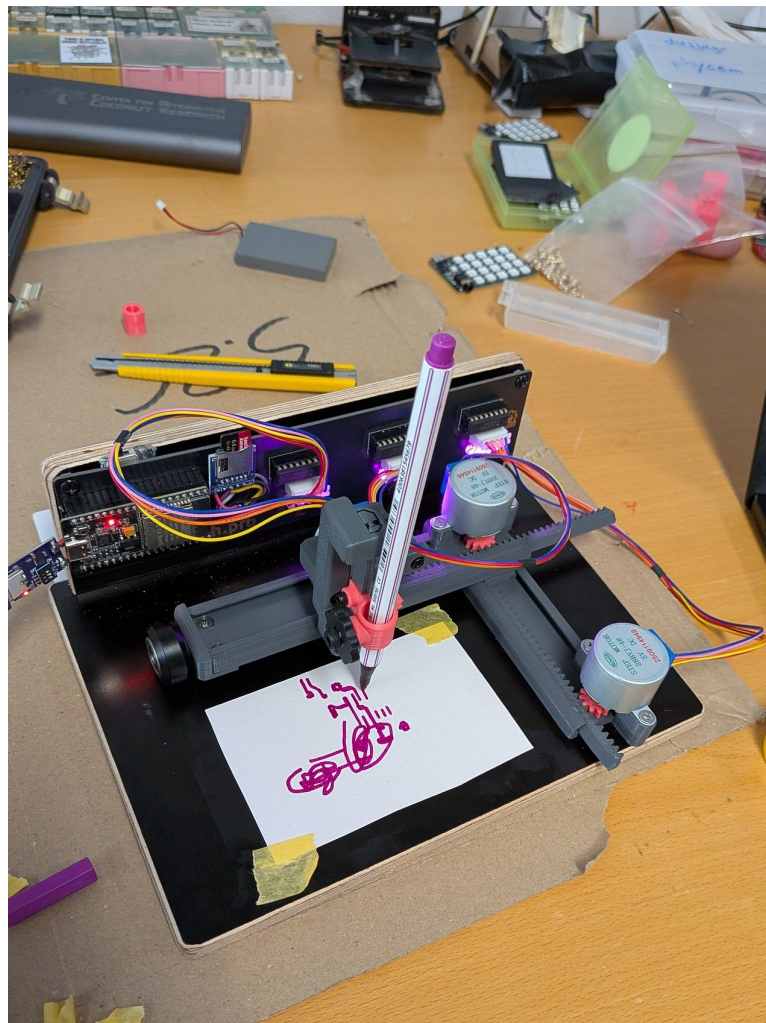
03.08.2026

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WPE
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origin ID: CA 936 865 533 DE 2C
UPTELL 9081422476
(2)CH5210+870400008154
LNU DB14600012678678917



Dozierende mit Praxiserfahrung

DIY/DIWO, Making, Workshops seit vielen Jahren



Klassenzimmer als Hackspace

6 Arbeitsinseln, Beamer & Wandtafel



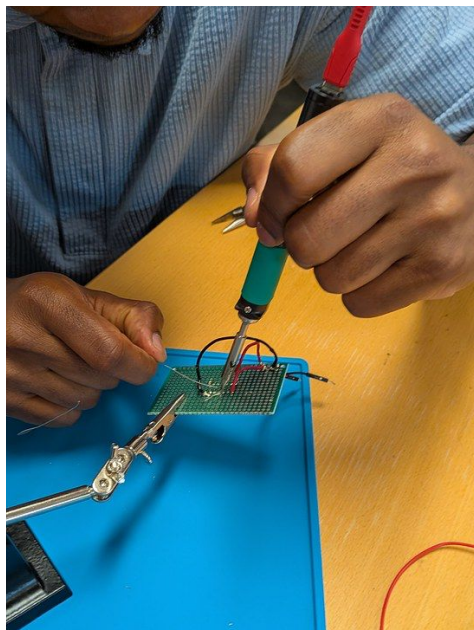
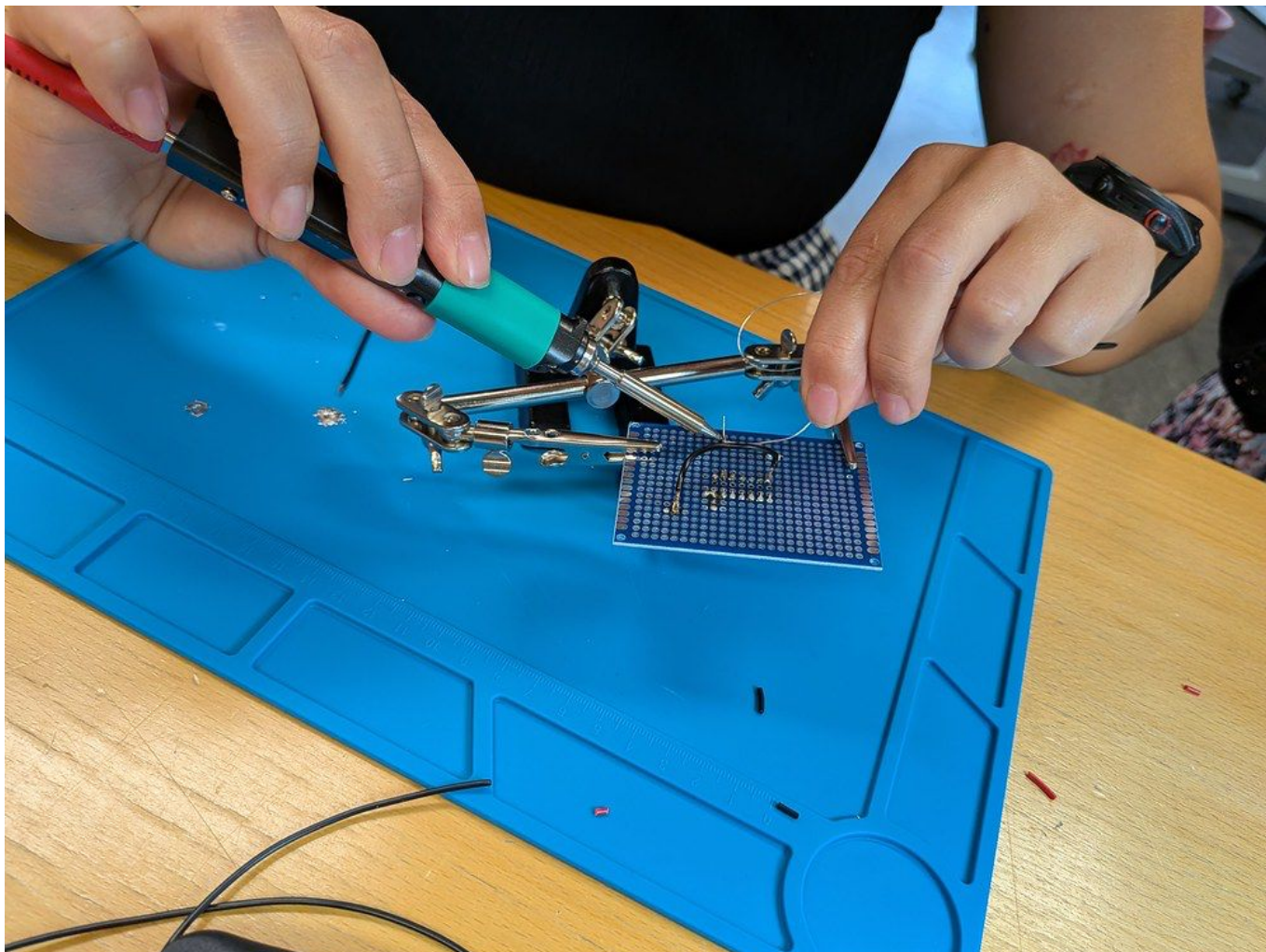
Materialbuffet mit Selbstbedienung

Günstige Bauteile, einfaches Werkzeug



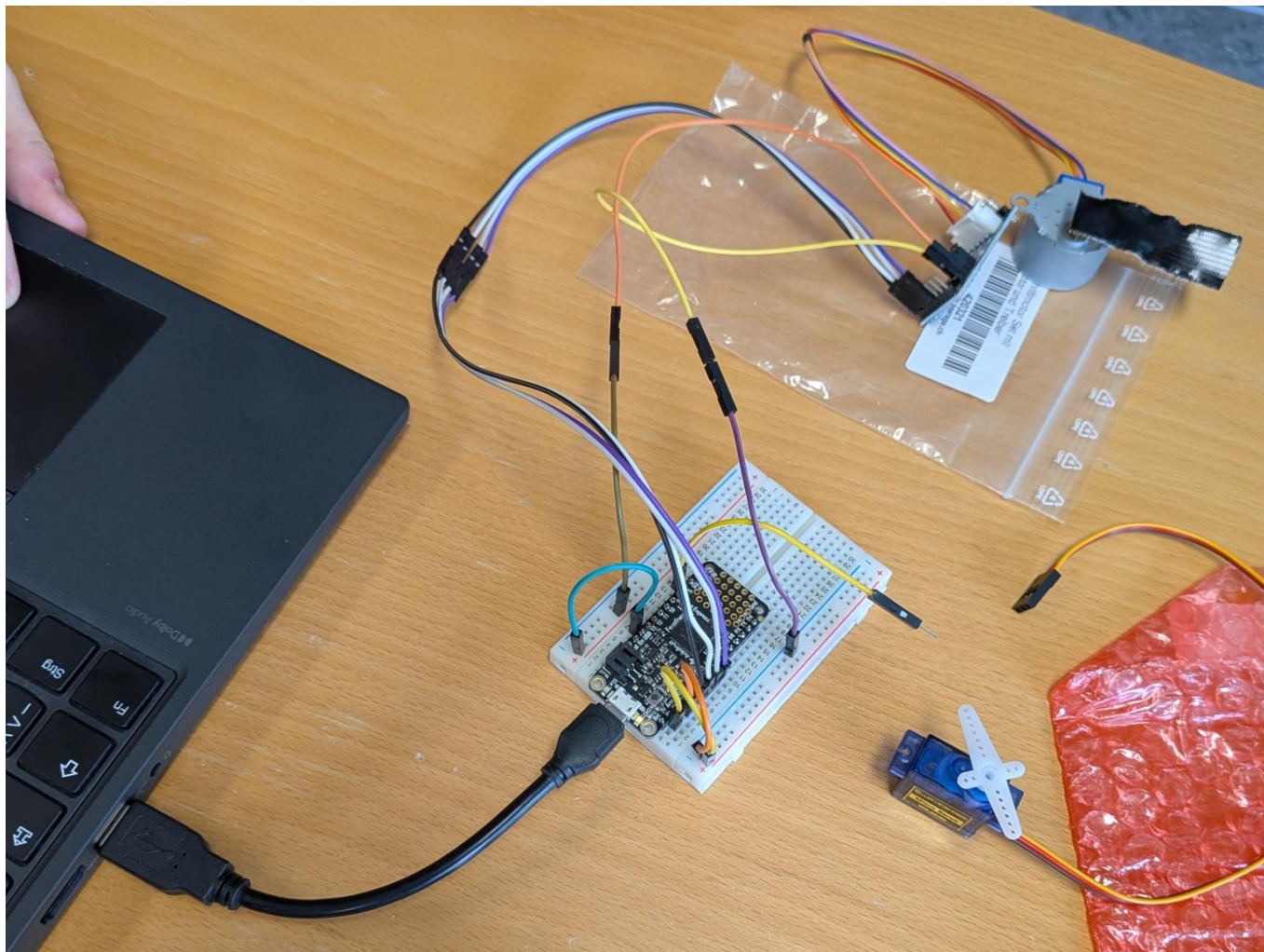
DIY Elektronik & Löten

Bread-/Protoboard, MicroNoise Challenge



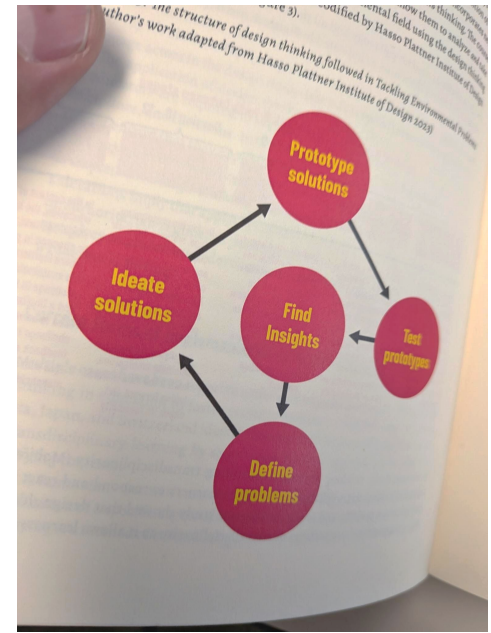
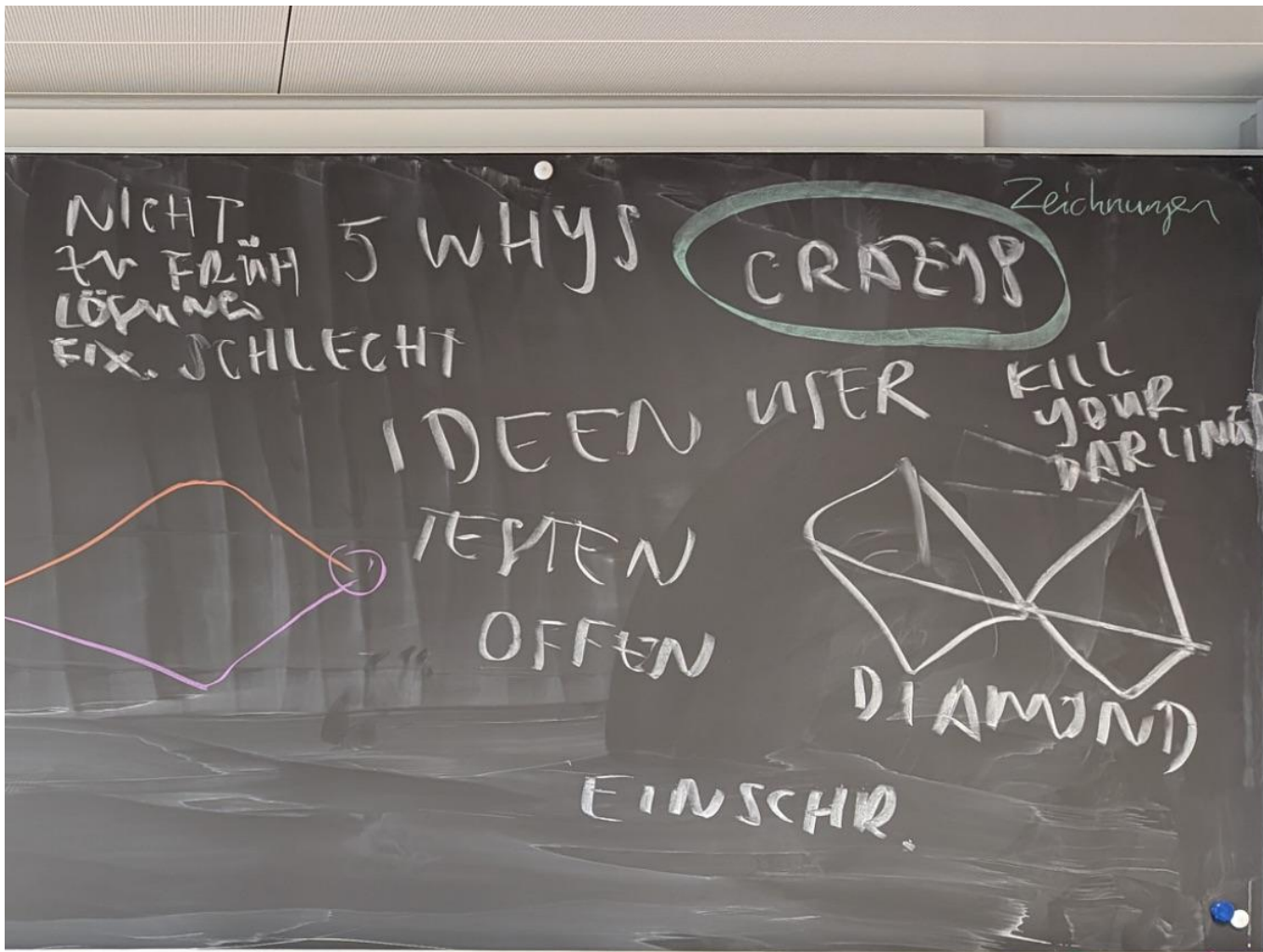
Embedded Programmierung

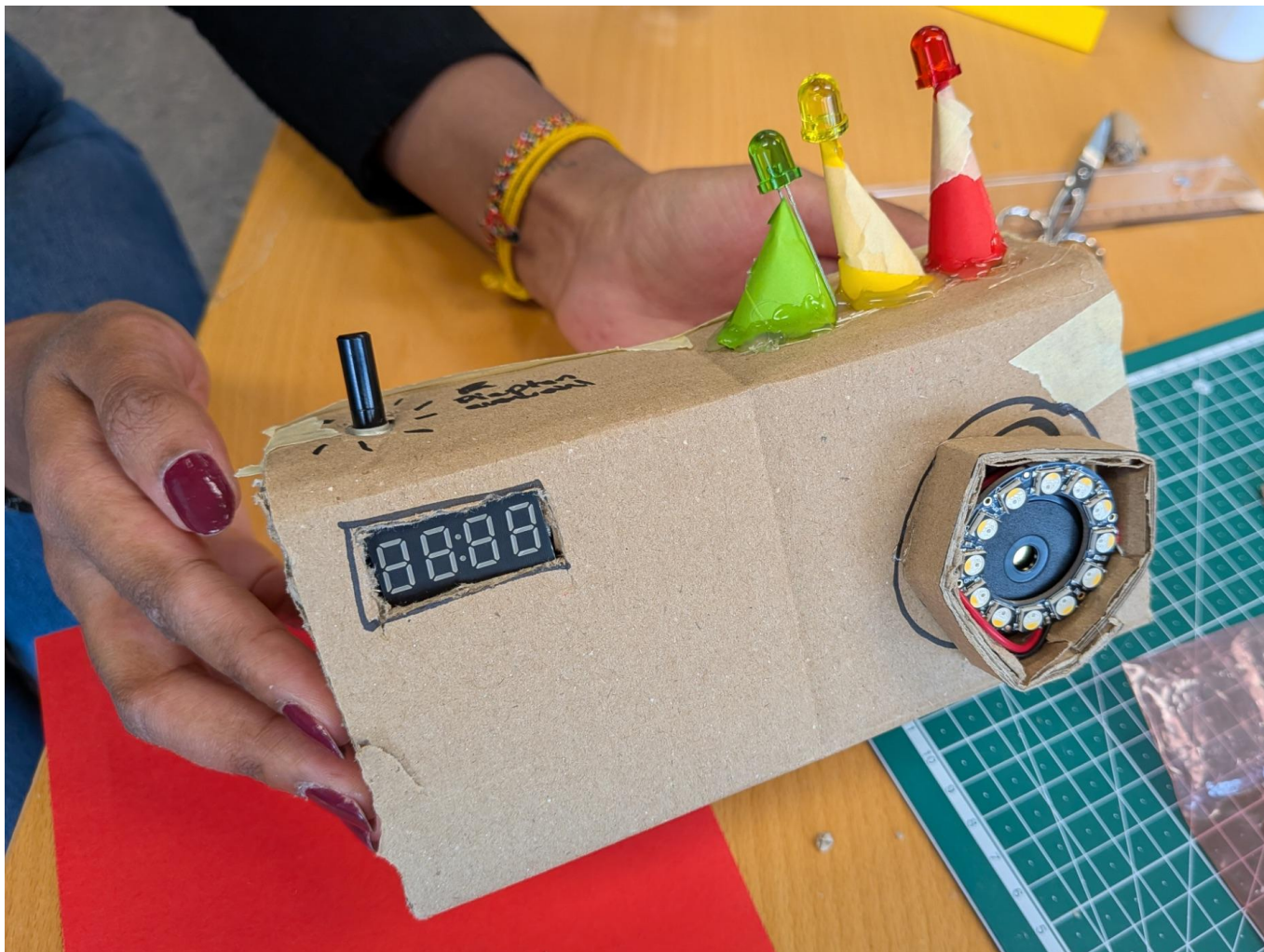
Arduino IDE, ARM Mikrocontroller, In-/Output



Ideenfindung & Prototyping

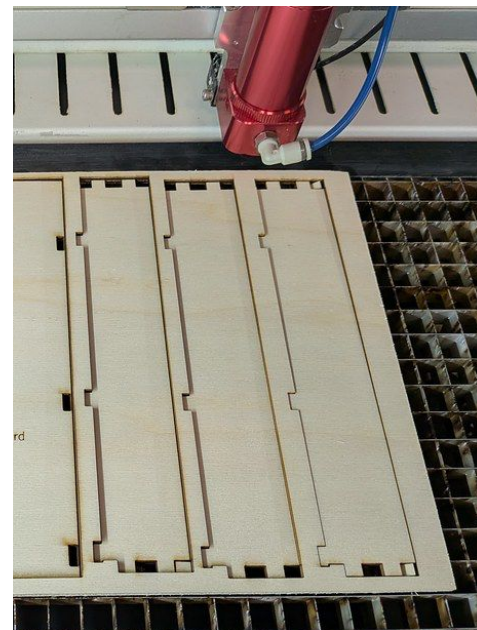
Design Thinking, Cardboard Challenge

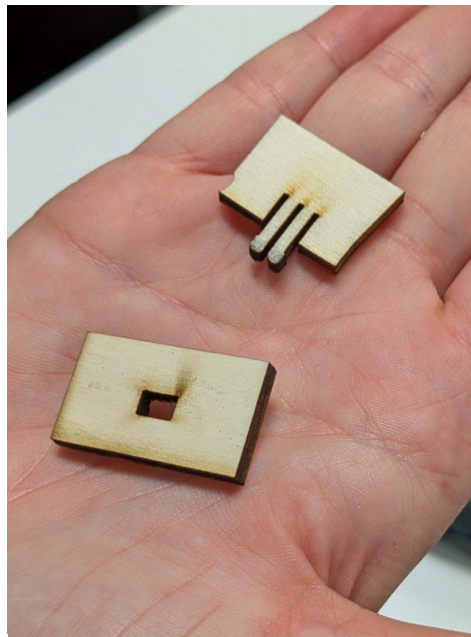
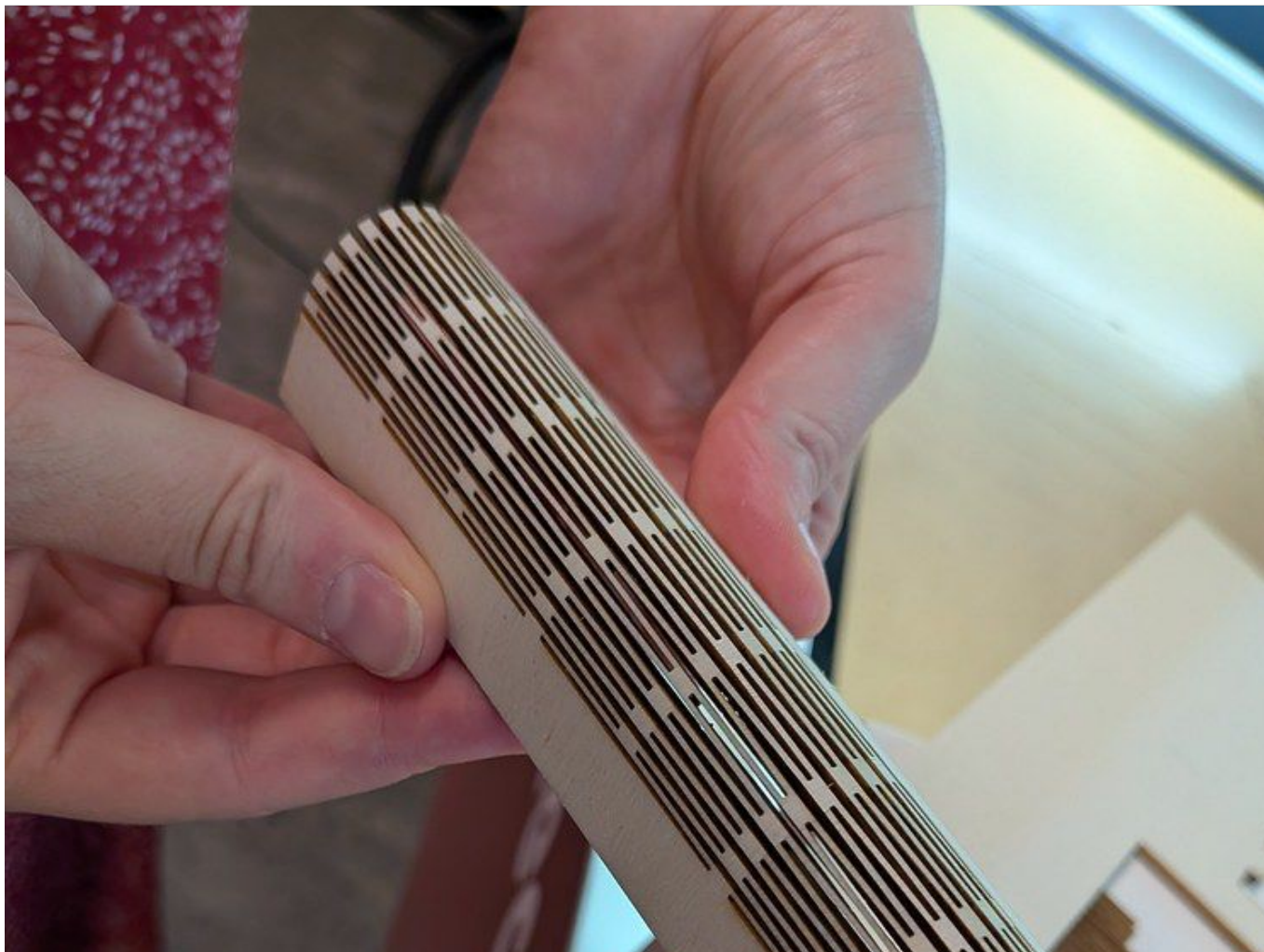




Digitale Fabrikation in 2D

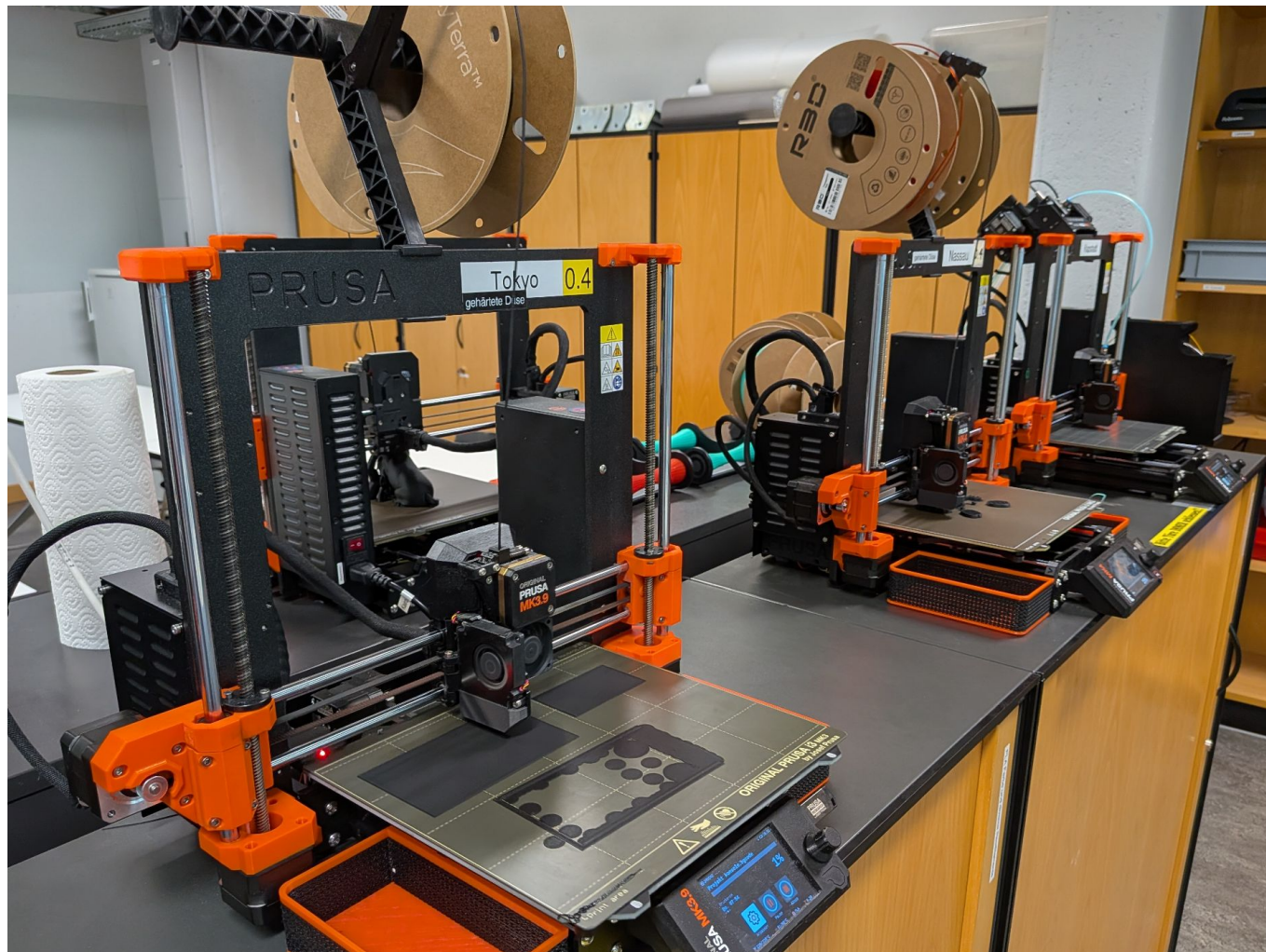
Inkscape, Laser Schnitt, A4 Böxli Challenge





Digitale Fabrikation in 3D

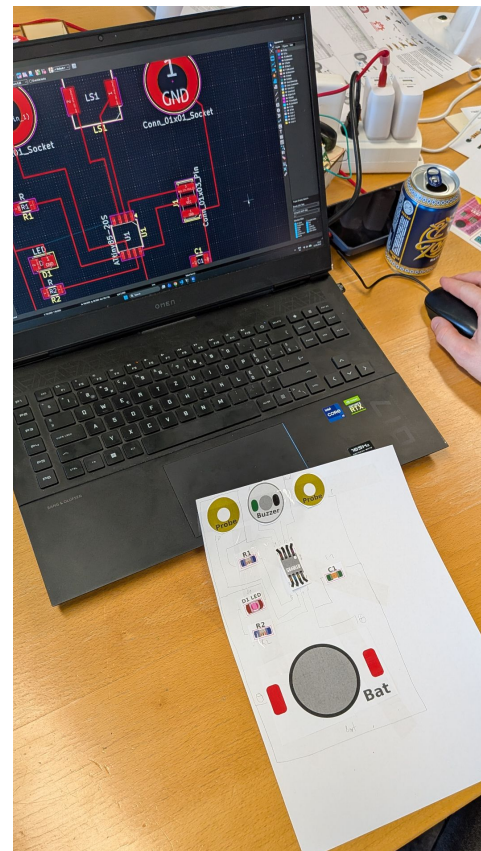
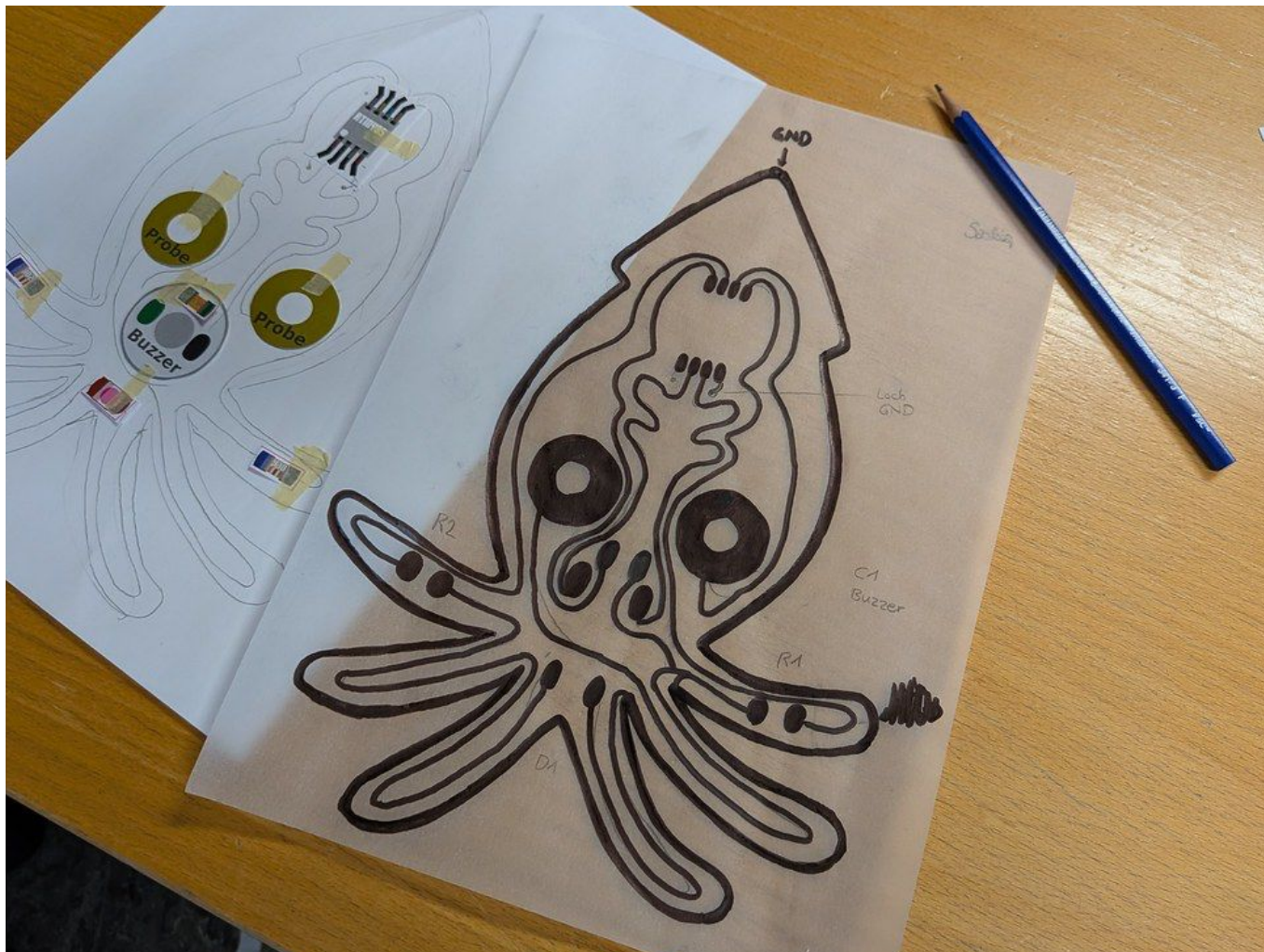
OpenSCAD, 3D Druck, Wägeli Adapter Challenge

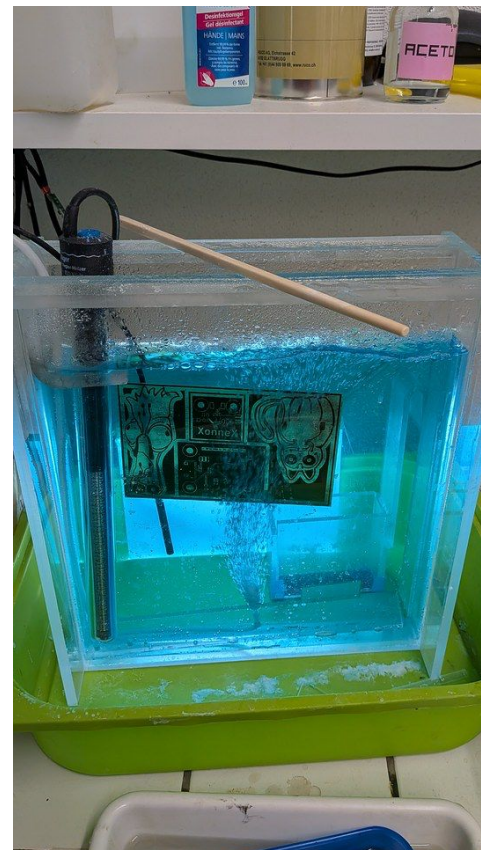
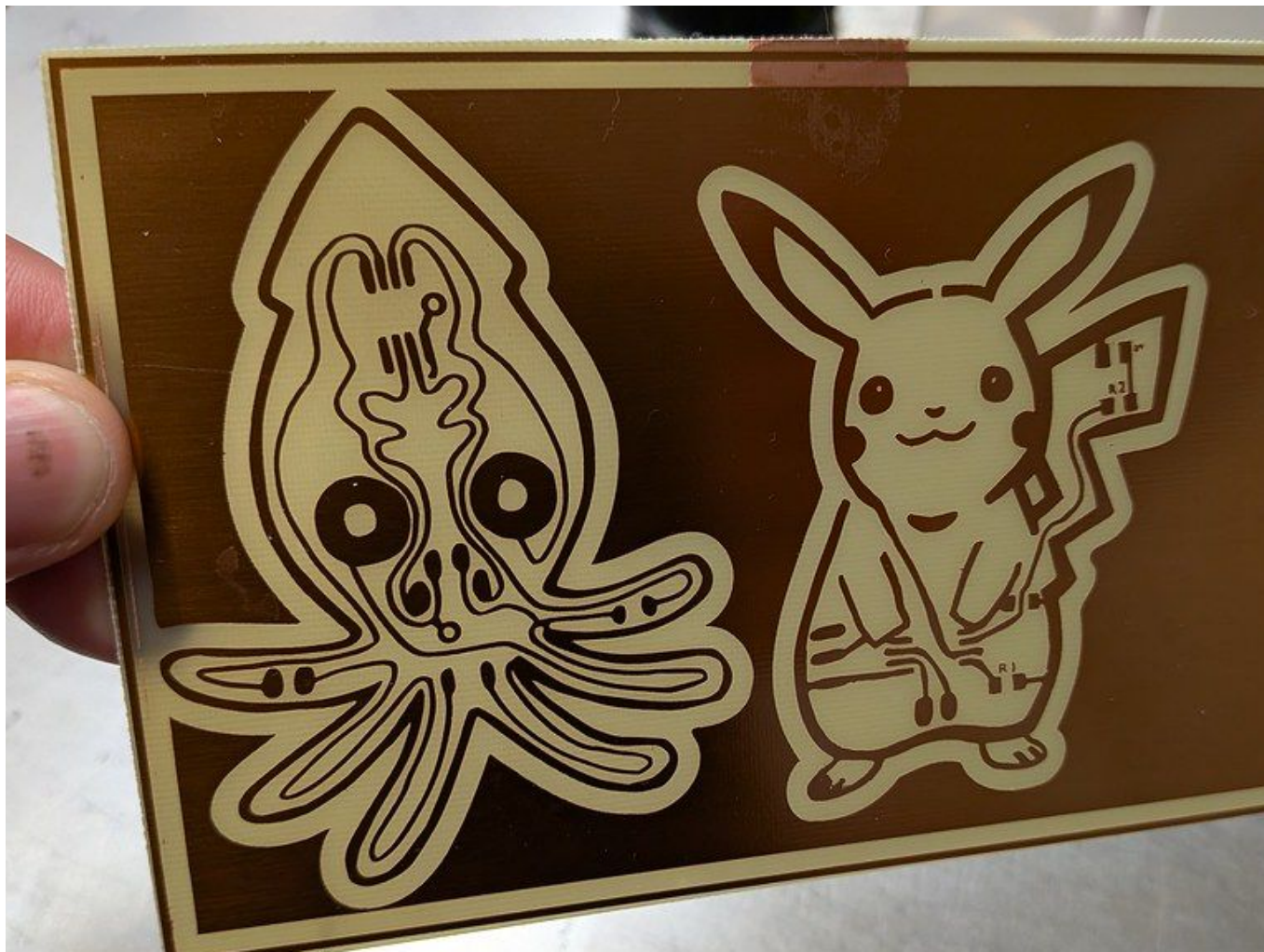




PCB Layout & Produktion

SMD Layout auf Papier, Beepsy Challenge

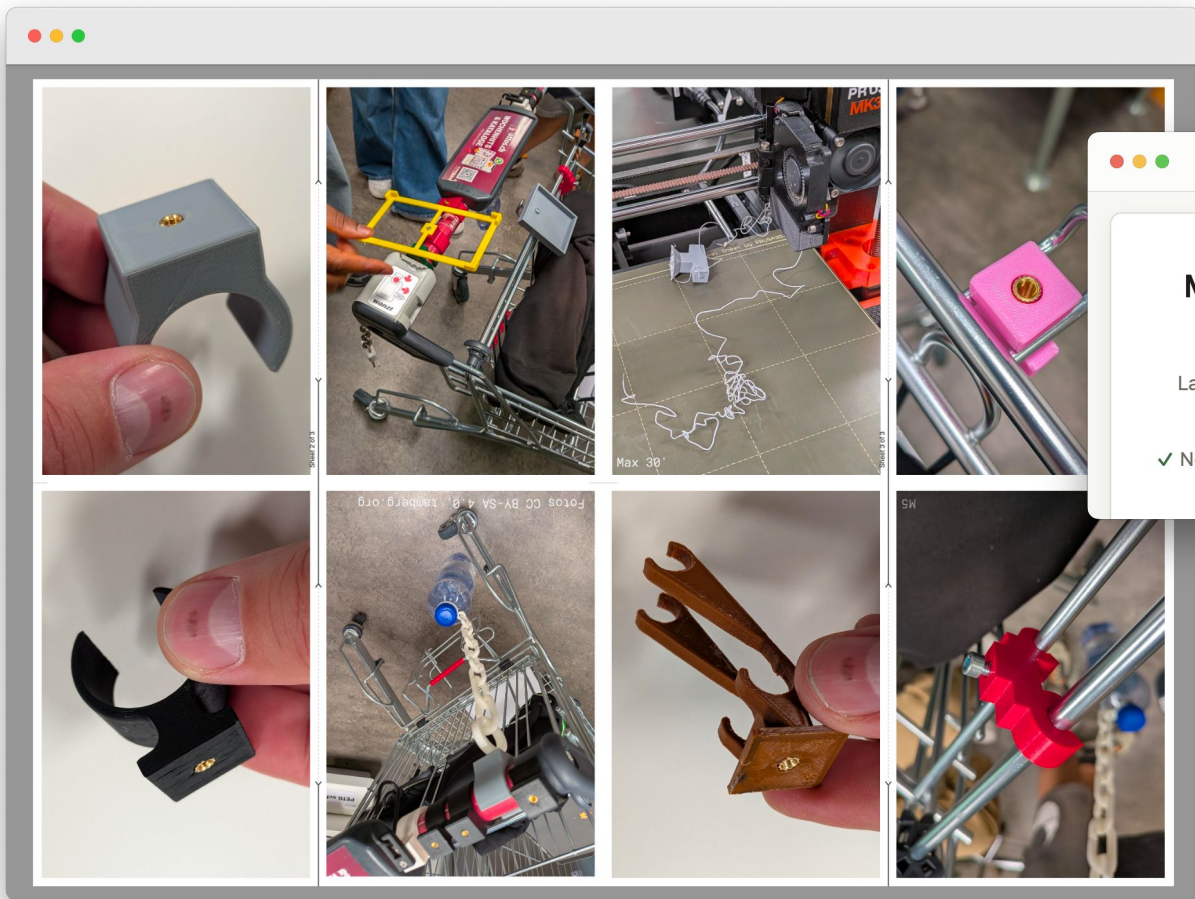




Dokumentieren & Teilen

Git Repos, Offene Lizenzen, Zine Challenge





zine-creator.com

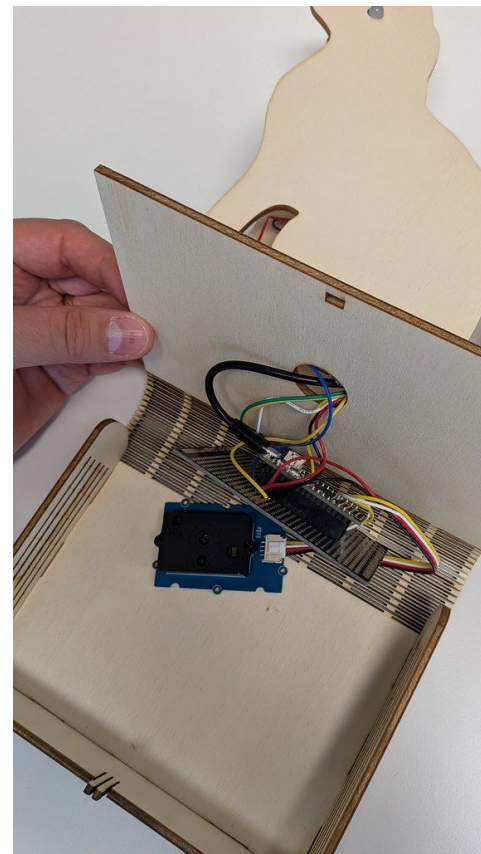
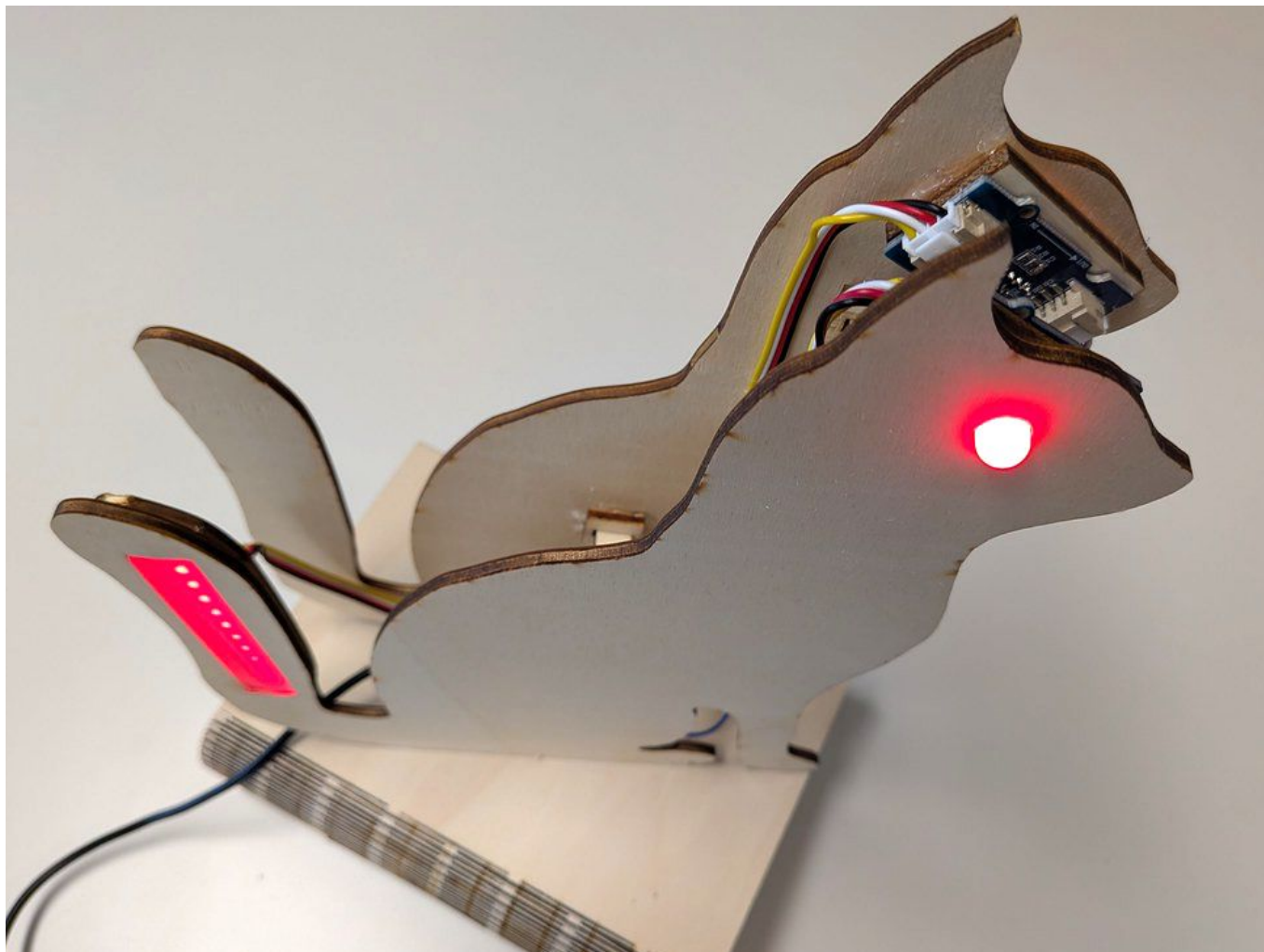
Make a printable booklet or zine from any PDF

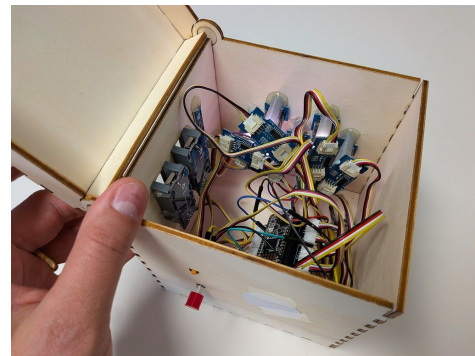
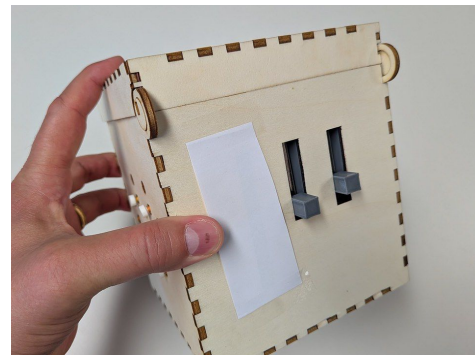
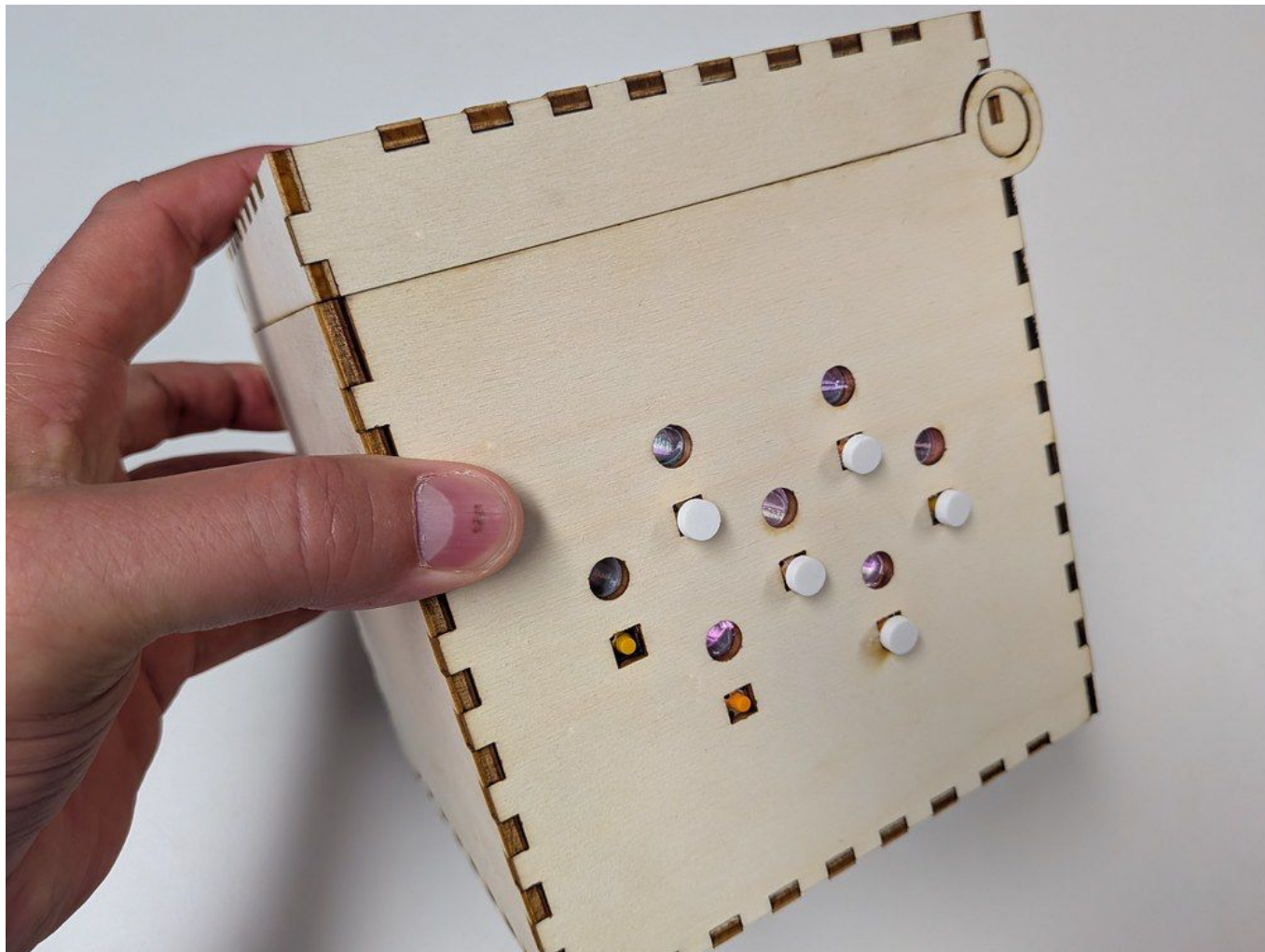
Lay out your pages on sheets, print at home, fold and staple. Free, in your browser, no uploads.

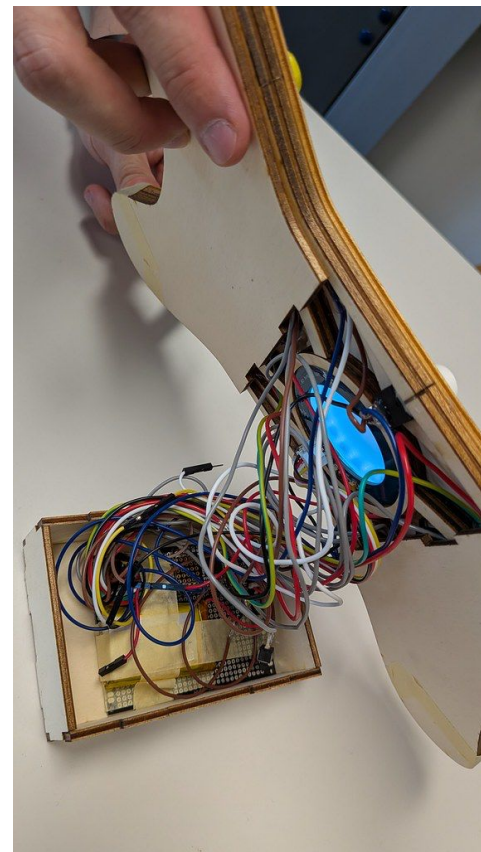
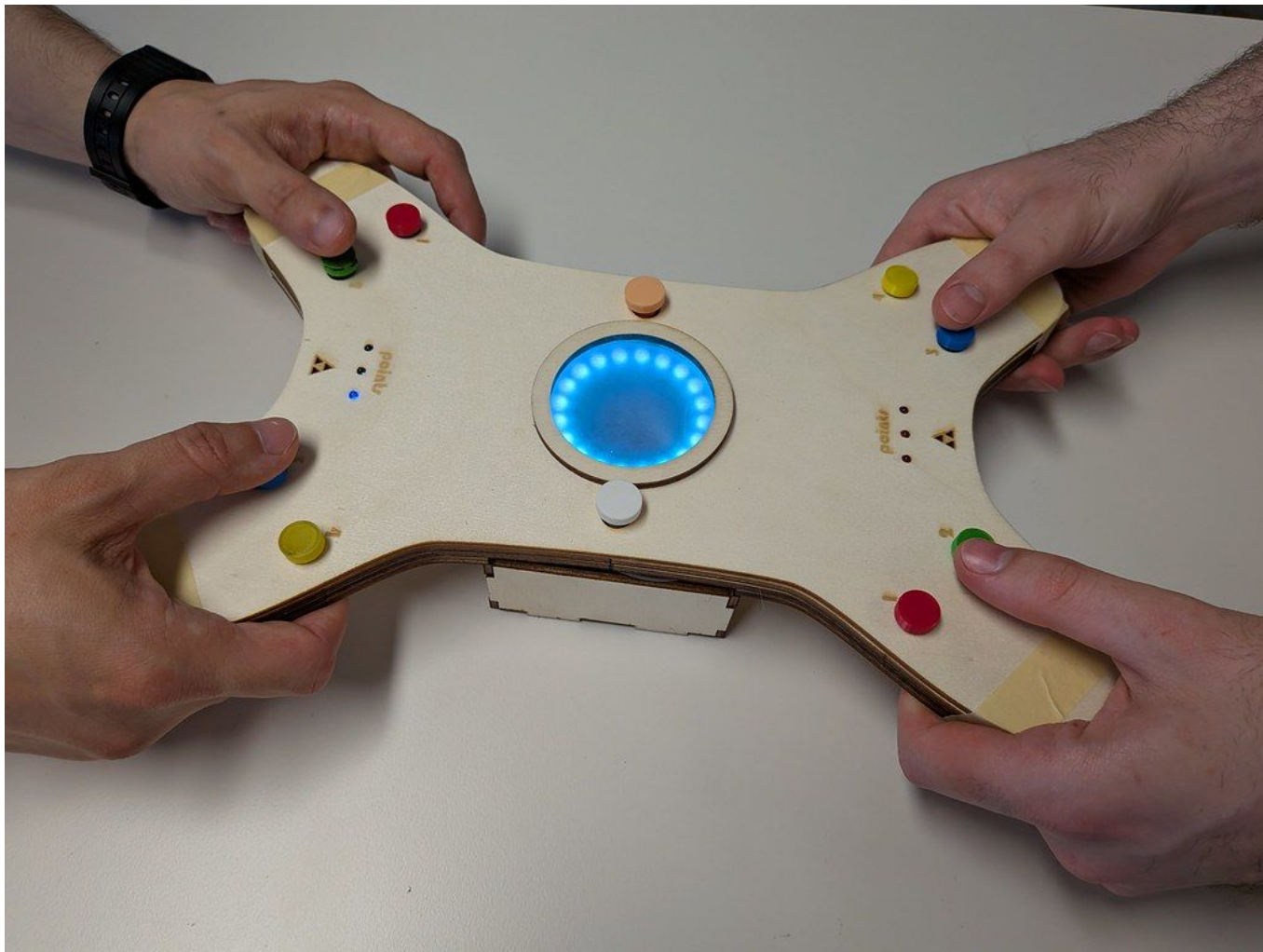
- ✓ No uploads
- ✓ Runs in your browser
- ✓ Works offline
- ✓ No account

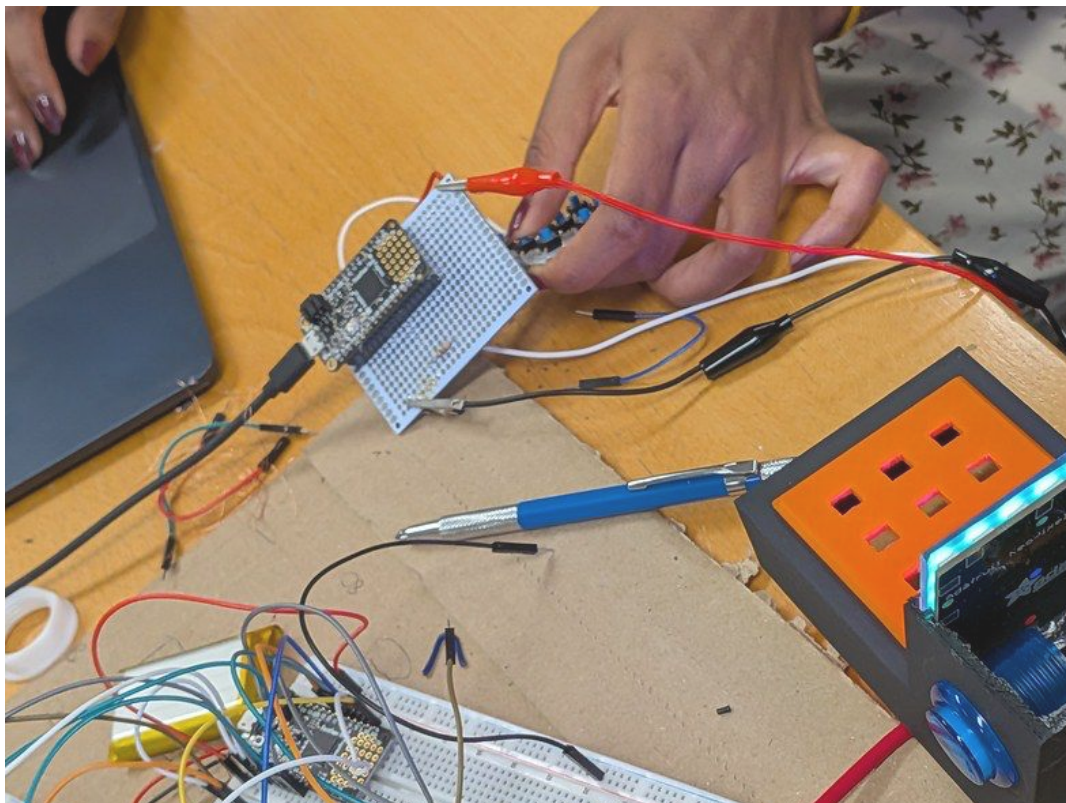
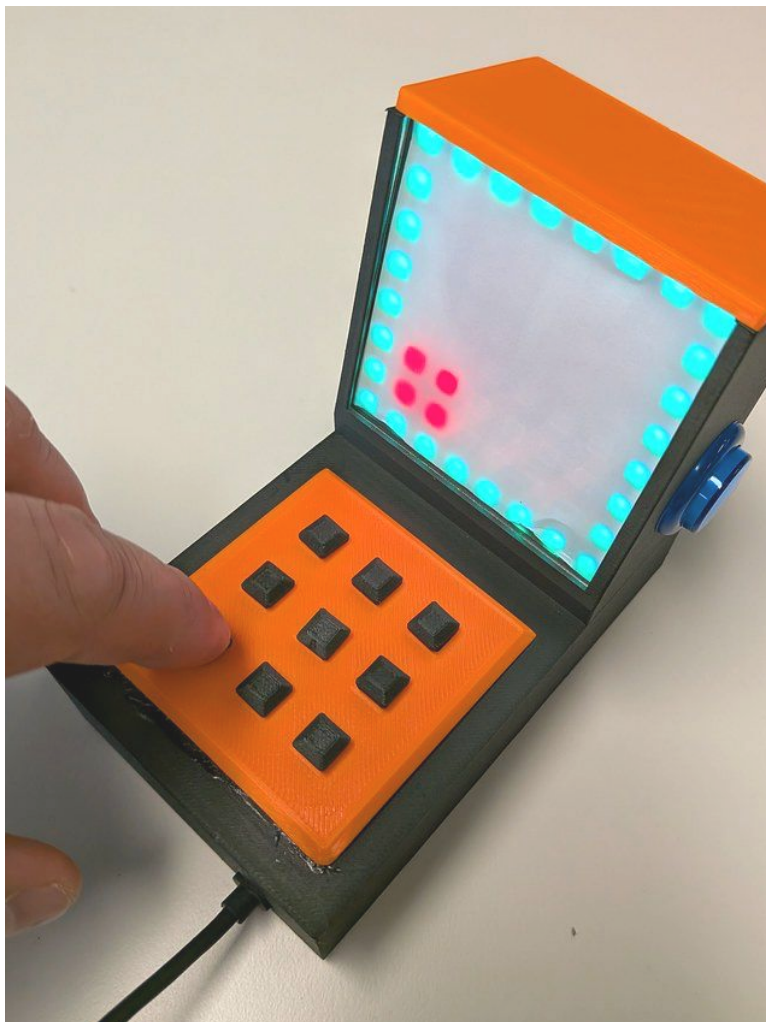
DIY Projekt in 3er Teams

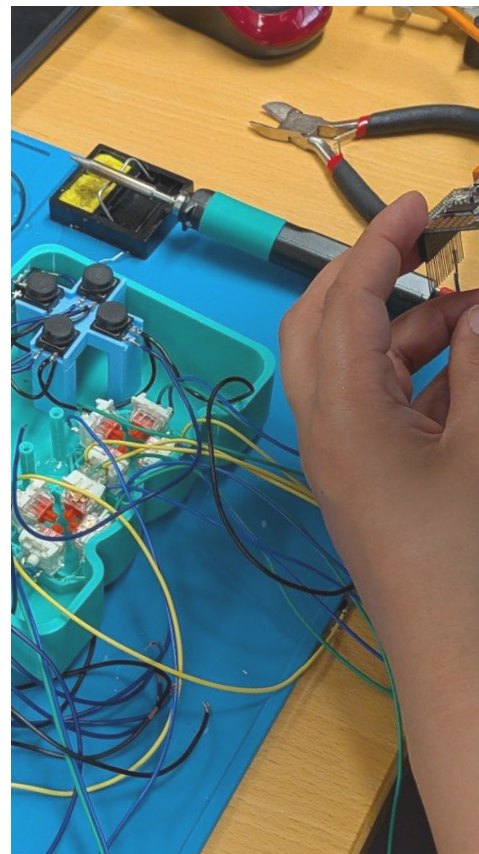
Sensor Device, Game Controller oder Offen













Aufbewahrung & Transport

Standard Boxen & Kisten, alles auf Rädern



Feedback der Klasse

Raum zu heiss, Inhalt passt gut.

Raum war viel
zu heiss!

Anderes Zimmer
im Sommer

Ein grösseres
Zimmer

Raumwahl im
Juni nicht ideal
viele Schwitzen
es ist zu eng/stickig

Weniger Chaos
vorallem bei
Präsi

Mehr Organisation
beim Material;
öfters aufräumen?

Ordnung mit
Bauteilen und
Werkzeug

System beim
Materiallager

Inputs am Morgen
interessant & inspirierend
jedoch etwas lange

Wenn man etwas
nach tiefer Lernen
wollte ~~ist~~ ^{musste} ~~nach~~
man selbst suchen

Früher beginnen
früher schluss

Abends früher
aufhören.

Aus wenig →
Viel machen

Nicht zu schwer und
nicht zu einfach
⇒ passt

coole experimentier-
freudige Stimmung

mal weg
von den
normalen
räumen

Interessante
Einblicke in
eure Erfahrungen

Viel ausprobieren
und experimentieren

Functioning
PCB assembled
(Synthesizer, Peepsy)

Viel OSS



Gute Inputs
um selbstständig
zu arbeiten

genug Zeit um Dinge
auszuprobieren

9:15 Uhr Start
super für
Anreise

Interessant +
reiner Spass!