



# Håvard Fredwall

Master's student NTNU  
Electrical engineering  
Birthdate 12th Dec 2001

## Details

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## Skills

- Circuit/PCB design
- Altium, KiCad, Eagle, Target3001
- C, Embedded C, C++, Python, VHDL, Verilog, HTML, CSS,
- 3D-modeling in Fusion and Blender,
- AimSpice, LTspice, Cadance
- 3D slicers: Prusa, Bambu, Creality and Cura
- Public Speaking

## Hobbies

- Beach-Volleyball on international level
- KRIK
- Content creation
- Playing the guitar/Music Production

## Language

Norwegian: ★★★★★  
English: ★★★★★

## References:

- Vulkaza
- Medstorm

## Profile

Master's student in Electrical engineering at NTNU seeking new challenges and learning opportunities. Passionate about creating solutions, building from scratch, and delivering quality work.

## Experience

### Hardware Developer, MedStorm, Oslo

March 2022 – Present

Tasks: developing and maintaining electronic pain sensors. Tasks include technical documentation, graphic design (Inkscape/adobe), 3D modeling, prototyping, and electronic development using KiCad, Target3001, and Eagle.

### Orbit, NTNU, Trondheim

September 2024 – Present

Designing the satellite's On-Board Computer and high-speed FPGA. Responsible for schematic design and PCB layout using Altium, with SPICE simulations for testing and validation.

### Event Organizer – KRIK, Oslo/Trondheim

(January 2023 – Present)

Organize summer camps for +700 young adults annually in a 12-person team.

### Internship, Vulkaza, Oslo

June 2022 - August 2022

Tasks: software developer and wrote an API customizing 3D models in Python and Blender. I also learned how to 3D model in Fusion 360

### Biomedical Research Project, Oslo

September 2022 – June 2023

Developed a pneumatic device to measure oxygen in the heel when out of balance. Prototyped on breadboards and implemented using C programming

### Substitute Teacher, Kristelig Gymnasium, Oslo

September 2021 – June 2024

Subjects: Math, Python, Physics, Biology and Science at High School level.

## Education

- **MS Electrical Engineering NTNU, Trondheim** (August 2024 – Present)  
*MELSYS- Direction: Embedded systems.*
- **BA Electrical Engineering, OsloMet, Oslo** (August 2021 - June 2024)  
*Developed an autonomous Trimaran powered by wind and harvesting its own energy from ocean waves for out BA. Project. GPA: 4.5.*
- **Hedmarktoppen Folkehøyskole** (August 2020 – June 2021)
- **Kristelig Gymnasium (High school), Oslo** (August 2017 – June 2020)

## Certification

- **3D Printing, PCB dev, Vinyl, Lasercutting, Soldering and CNC-Milling**  
October 2022 – October 2022
- **QMS Training, Document Controll, MedStorm**  
January 2017 – March 2020
- **Online course in C, C++, HTML and CCS. Codecademy**  
January 2022 – February 2022