Wolf Vierbergen

Date of birth: 07 Dec. 2002

Living in Leuven

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EDUCATION

KU Leuven, Leuven — *Master of Electromechanical Engineering Technology*

September 2024 - present

Universiteit Antwerpen, Antwerp — *Bachelor of Electromechanical Engineering Technology*

September 2020 - June 2024

PROJECTS

Pneumatic Artificial Muscles for Steerable Catheters— Master's Thesis Research @ RAS laboratory

October 2024 - June 2025

- Developed miniaturised pneumatic actuators for cardiac catheter applications, achieving a 3.8-fold increase in force output.
- Multi-muscle arrangements to address limitations in minimally invasive surgery.
- Matching actuators with bending segments for medical procedures.

EcoQanat — Finalist Sustainable Hospitality Challenge

August 2024 - October 2024

- Worked in a team of 4 to develop a business plan for an innovative idea.
- The project was part of the finals at the Future Hospitality Summit in Dubai.
- Responsible for technical details of a more efficient air-cooling system.
- Pitching the idea to a jury of potential international investors.

Lens Focusing system — Thermal camera adjustment

October 2022 - December 2022

- Designed and built a lens focusing system for a thermal camera, featuring precise adjustment and absolute position control.
- Utilised a stepper motor with belt drive and an Arduino for control.

Automated grow box— Building and implementation

October 2021 - June 2022

- Developed a 4-story rack with integrated water plumbing and light distribution as part of a course at University of Antwerp.
- Implemented automation using a Raspberry Pi, relay switches, and soil moisture sensors to control the system.

CNC machine — Desktop CNC mill

April 2019 - June 2021

- Constructed a 3-axis CNC, utilising an Arduino and stepper motors.
- Developed three iterations to improve stability and performance.

Wind Tunnel — Constructing and testing a wind tunnel

September 2019 - April 2020

- Designed, built, and tested a wind tunnel.
- Achieved the goal of creating and visualising laminar flow.
- Successfully characterised the performance of an aerofoil.

EXPERIENCE

Internship, Leuven - Donaldson Company

October 2023 - May 2024

- Completed an internship at Donaldson as part of my bachelor's thesis.
- Worked on automating an oil filter test bench using LabVIEW.

SKILLS

Hardware: Programmable Logic Controller (PLC), Arduino, 3D printing, CNC.

Software: Python, MATLAB, Excel, Siemens NX, Autodesk Inventor, Fusion 360, EES, TwinCAT, FluidSIM, LabVIEW, Inkscape, PowerPoint, Word

LANGUAGES

Dutch C2
English C1
Italian B1
French A2

HOBBIES

Youth movement (Chiro)
Climbing
Biking