

ROEL HOFSTE

Mechanical Engineering Student
Product Development

CONTACT

Växjö, Sweden
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Driving licence B

CERTIFICATION

CSWA
Certified SOLIDWORKS Associate

SOFTWARE

SOLIDWORKS (parts, assemblies, drawings, weldments)
Fusion 360 · Onshape
Moldex3D (injection moulding)
AutoCAD
Excel · PowerPoint

ENGINEERING SKILLS

- Systematic design: morphological chart, Kesselring evaluation
- Design calculations and FEM validation
- Steel structures and bolted joints (EN 1993-1-8)
- Technical drawings (ISO)
- Plastics and injection moulding
- Hydraulic systems

HANDS-ON

- DSG / mechatronic rebuild
- CNC milling
- FDM 3D printing
- Soldering (electronics)

LANGUAGES

Dutch native
English fluent

INTERESTS

Padel, snowboarding, cars and motorsport, machine building

PROFILE

Mechanical engineering student (HBO, Windesheim) on a double degree at Linnaeus University in Växjö. I like to design, reverse engineer and improve existing products. For my graduation internship I designed an automated processing line for reclaimed clay pavers, from concept selection to FEM-validated detail design. Six years of hands-on technical work, including two years rebuilding DSG transmissions and building my own workshop tooling, keep my designs manufacturable. **Looking for a design or redesign thesis assignment, January to June 2027.**

EXPERIENCE

Graduation Intern, Mechanical Design
2026
Groothuis, Netherlands

- Designed an automated line that cleans, sorts, orients and palletises reclaimed clay pavers; theoretical capacity 1,814 m² per day at ≥95% sorting accuracy
- Selected concepts with a morphological chart and Kesselring evaluation
- Dimensioned a 3,000 × 9,000 mm Hardox 400 sorting drum: critical speed, wall thickness, fatigue, wear and deflection; validated with FEM
- Modelled HEB100/HEB200 frame assemblies in SOLIDWORKS; sized bolted joints and edge distances to EN 1993-1-8
- Worked with SENRO for technical input and pitched the project to Innovatiehub Tubbergen

DSG Rebuild Technician / Mechanical Engineer
Nov 2024 – 2026
Pro-Shift, Netherlands

- Rebuilt mechatronic units and TCU electronics of DSG dual-clutch transmissions
- Designed and built custom workshop tooling, including a hydraulic bearing press and puller table
- CNC-milled precision parts and 3D-printed jigs and fixtures for the rebuild process
- Soldered electronic components during TCU repairs

Machine Maintenance / Groundskeeper
Jan 2022 – Nov 2024
EKU Tubbergen, Netherlands

- Performed preventive and corrective maintenance on a wide range of machines
- Planned and carried out technical and outdoor work independently

CNC Machine Operator
Mar 2020 – Mar 2022
Hans Oude Hendriksman, Netherlands

- Set up and operated CNC woodworking machines (sawing, milling, planing) from technical drawings
- Checked dimensions and quality of finished parts

STUDY PROJECTS, LINNAEUS UNIVERSITY

Load gate redesign for a forestry forwarder
2026
Client: Terri AB, Älmhult (team of 4)

- Redesigning a 300 mm taller load gate for better operator visibility during harvesting, compliant with SS-EN ISO 11850 and fitted to the existing frame

Hoist drive design
2026

- Designed the drive train for a 920 kg, 22 m hoist: motor selection (11 kW), V-belt, gearbox and chain transmission, including shafts, bearings and housing

EDUCATION

Double Degree, Mechanical Engineering
2026 – 2027
Linnaeus University, Växjö, Sweden

Bachelor of Engineering, Mechanical Engineering (HBO)
2023 – 2027
Windesheim University of Applied Sciences, Zwolle, Netherlands

- Minor: Plastics Technology

OTHER WORK

Restaurant work, dishwashing and serving (2018 – 2020); bar staff at village festivals and events (2021 – 2026)