François Vansnick

Mechanical Engineer

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PROFILE

Mechanical Engineer specialized in design, modeling and simulation, passionate about aerospace, motorsport and high-performance systems. Eager to turn ideas into practical designs and contribute to real-world projects. I'm motivated and ready to apply my analytical and creative skills to develop innovative aerospace components.

EDUCATION

UCLouvain Master's in Mechanical Engineering 2023-2025
Options: Dynamics, Robotics, Biomechanics, Design, Manufacturing and Mechanics of materials

UCLouvain Bachelor's in Engineering Science 2019-2023
Options: Mechanics and Computer Science

TECHNICAL SKILLS

CAD & Design: SolidWorks, AutoCAD, Fusion 360 - 3D modeling, Assemblies, Technical drawings

Simulation: Abaqus, Robotran, Digimat, FEMM - Finite Element and Multibody Dynamics

Programming: Python, MATLAB, C, Arduino, Java, HTML, CSS

Manufacturing: Advanced Manufacturing Technologies, Welding Science

Materials: Composite Materials, Process and Materials selection (Ansys Granta Selector)

Quality & Safety: Industrial risk assessment, Safety standards and quality management

Languages: French (Native), English (Proficient), Dutch (Basic)

SELECTED PROJECTS

High-Performance Micro-Motor Test Bench Master Thesis - Collaboration with Mirmex Motor
Designed and built a precision test bench for micro-motor loss measurement up to 100,000 rpm. Integrated sensors, CAD, and data acquisition.

Automatic Optical Fiber Spooling Machine - Collaboration with AeroSpacelab
Developed the mechanical design of an optical fiber spooling and coating system intended for satellites. Managed design iterations and mechanical integration with an aerospace partner.

Energy Recovery from Rain - Machine Design Project
Designed and prototyped a compact rain-energy harvesting system with a micro hydraulic turbine and generator. Created detailed CAD models and functional prototype using 3D printing and laser cutting.

SOFT SKILLS

Analytical • Creative • Problem-solver • Meticulous and Reliable • Team-oriented • Curious and eager to learn

CERTIFICATIONS

SolidWorks Mechanical Design (Dassault Systèmes, 2023) • MATLAB Onramp (MathWorks, 2024)

PORTFOLIO

Full portfolio with detailed projects, reports and certificates: vansnickfrancois.github