

Mory KOUROUMA

Mechanical Design engineer Intern | Mechanical Engineering and Materials student

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France

Mory Kourouma

My Portfolio

PROFIL

Mechanical and Materials Engineering student with hands-on experience in mechanical design and CAD modeling through an apprenticeship at Freudenberg Sealing Technologies. Proficient in CAD/CAM/FEA tools and familiar with industrial design constraints. Currently seeking a 12-week mechanical design internship to support engineering projects and rapidly integrate into a technical team.

EDUCATIONS

Engineering Degree in Mechanical Engineering and Materials (Master's level)

Polytech Tours

Sep 2025 – Aug 2028 Tours, France

PERSONALS EXPERIENCES

CAD/CAM/FEA Content creator

Channels : MK-Conception-3D, GKM-Design

Dec 2023 – Present YouTube

- **Software used** : Fusion360, SolidWorks, Inventor Pro, Creo Parametric, Siemens NX, CATIA V5/ 3DEXperience.
- **Covered concepts** : Parametric, surface, form and solid modeling; assemblies, animations, technical drawings; CAM; sheet metal and welding fundamentals; FEA and simulation.
- Community of 2,5k+ subscribers with over 300k cumulative views across more than 150 published tutorials.
- Technical communication in French and English

Rapid prototyping : FDM 3D printing

Personal printer : Longer LK5 Pro

- **DFM-Oriented Design & Additive Manufacturing** : Optimization of parts for 3D printing (layer orientation, overhang management, and infill settings).
- **Dimensional Tolerancing & Mechanical Fits** : Definition of functional tolerances and clearances in CAD software, validated through physical assembly testing.
- **Rapid Prototyping & Failure Analysis** : 3D printing, post-processing, and functional testing of mechanical assemblies.

SOFTWARE CERTIFICATIONS

- CATIA 3DEXperience : Mechanical & Shape Designer Associate

SOFT SKILLS

Team-oriented mindset Autonomous and creative
Fast learner Effective technical communication

LANGUAGES

- French : maternal language
- English : Technical and operational

PROFESSIONALS EXPERIENCES

Mechanical Design engineer Intern

Freudenberg Sealing Technologies

Sep 2025 – Present Langres, France

- **Project** : Designed tooling for robotic cells to manufacture new EV battery pack seals, reducing tooling costs by 40 to 60%.
- **Tasks** :
 - **Complex Tooling Design** : 3D modeling of heavy tooling and mechanical systems for robotic cells.
 - **Structural FEA Analysis** : Static finite element analysis (FEA) on gripper components.
 - **Design for Manufacturing and Assembly (DFMA)** : Design optimization tailored to manufacturing and assembly processes.
 - **Assembly & Commissioning** : On-site technical support during physical installation and assembly of equipment.
- **Continuous Improvement Training** : Kaizen risk management, Lean
- **Tools & Technologies** :
 - **CAD/FEA** : Siemens NX, Simcenter 3D
 - **Office & IA Tool** : Microsoft office, Copilot

Mechanical Workshop Assistant Intern

Gamal Workshop

4 months – 2023 Conakry, Guinea

- **Tasks** :
 - Technical drawing reading and interpretation for manufacturing operations
 - Introduction to conventional machining processes including turning, drilling, milling, and surface finishing
 - Assisted with preventive maintenance of workshop equipment to ensure part quality and machine reliability
- **Tools & Machines** : Lathes, milling machines, drilling machines

TECHNICAL SKILLS

- **CAD/CAM/FEA** :
 - Advanced : Siemens NX, CATIA V5/ 3D Experience, Creo Parametric, SolidWorks, Fusion360, Inventor Pro
 - Intermediate : Solid Edge, AutoCAD, FreeCAD, Onshape
- **FEA/CFD** : Simcenter 3D, Ansys Workbench, Abaqus
- **Manufacturing/CAM** : Machining : MasterCAM, NXCAM; Plastic injection : NX Mold Wizard; 3D printing : Cura
- **PLM** : Autodesk Fusion Manage, Enovia
- **Programming** : Python, MATLAB, Latex
- **IA tools** : Antigravity, Gemini, Claude, ChatGPT
- **Others Skills** : Microsoft Office, Google Workspace, Video editing (CapCut & Premiere Pro), Graphic design (Canva)