JUSTIN NEHME

MECHANICAL DESIGN & PRODUCT DEVELOPMENT

(514) 707-7808 • Justin.nehme3@gmail.com • JustinNehme.ca • Montreal, QC

PROFESSIONAL PROFILE

Mechanical engineering candidate with hands-on product development, CAD, FEA, fixture design, and rapid-prototyping experience. Designed industrial tooling for aerospace/defence manufacturing and large motor assemblies, and developed functional mechanical prototypes using stress analysis and DFM/DFA principles. Experienced with SOLIDWORKS assemblies and design-to-manufacture constraints.

ENGINEERING EXPERIENCE

Les Technologies KK | Île-Perrot, QC Feb 2026 – Present

Manufacturing Engineering | Aerospace & Defence Components

- Design fixtures and manufacturing aids for deformation correction of 6061-T6 aluminum parts, thermal-compound die cutting, and CNC part loading.
- Assess drawings, geometries, tolerances, GD&T, and tooling constraints to evaluate manufacturability.
- Collaborate with engineers, CNC programmers, and CMM personnel to revise processes and resolve dimensional issues.
- Develop a bilingual process-planning platform to structure routing, inspection notes, and revision-controlled documentation.

WAJAX – Delstar Énergie | Montreal, QC Aug – Dec 2023

Mechanical Engineering Intern

- Designed lifting fixtures for motor poles weighing up to 800 kg and redesigned ABB robotic-taping tooling components.
- Worked on General Electric AC–DC converter assemblies using SOLIDWORKS and Inventor for design and diagnostics.
- Maintained 3D printers and used CNC machinery, drill presses, and automatic saws during hands-on manufacturing support.

SELECTED ENGINEERING PROJECTS

Indestructabox | Impact-Resistant Enclosure
Designed a protective enclosure for a theoretical 40 km/h vehicle impact; applied CAD, finite element analysis, BOM management, and design iterations.

Machine-Element Soap Press
Designed and produced a functional 3D-printed press informed by machine-element calculations, stress analysis, and FEA.

Product Design & Development
Applied DFM/DFA, 3D modeling, and product rendering to an aesthetically focused mechanical design project.

Walter | Underwater Robot | 1st Place Capstone
Contributed SOLIDWORKS assemblies, mechanical integration, and rapid-prototyped components for an underwater cleaning and recovery robot.

TECHNICAL SKILLS

CAD & engineering analysis: SOLIDWORKS, Autodesk Inventor, Fusion 360, AutoCAD, FEA, basic stress analysis.
Product development: DFM/DFA, assemblies, design iteration, BOM management, fixture/tooling design, 3D renders.
Prototyping: FDM 3D printing, Bambu/Prusa Slicer, machine shop tools, CNC exposure, mechanical assembly.

EDUCATION & ADDITIONAL EXPERIENCE

Concordia University | B.Eng., Mechanical Engineering | Montreal, QC | 2021–2026 (expected)
John Abbott College | DEC, Pure and Applied Sciences | 2018–2021

Earlier experience: Automobile Parts Advisor, Canadian Tire (2022–2023); Founder & Lead Technician, Justin's Repair Shop (2016–2018).

Languages: Fluent English and French • **Leadership:** 250+ hours of community volunteering; high-school robotics CAD team.