Michel Domenella

domenellamichel@gmail.com | micheldomenella.com | Michel Domenella

ABOUT ME

I'm a mechanical engineer specializing in front-end human-centered innovation. Two years of hands-on device experience, from early-stage concepts to production-ready builds, now building formal design expertise through a Master's at Northwestern. I'm drawn to the space where user needs and engineering constraints meet, and I thrive moving fluidly between field research and the design team. I believe great products come from teams that treat user understanding as just as rigorous a discipline as the engineering itself.

CERTIFICATIONS

International Fluid Power Society
Pneumatic Specialist

June 2024

Certified SolidWorks Associate
Mechanical Design

June 2021

SKILLS

User Research Methods
- Contextual Inquiry
- Stakeholder Interviews
- Usability Testing
- Synthesis and Framing

Regulatory Experience
- RoHS 3
- FDA Device Classification
- 510(k) Pathways

Engineering Skills
- CAD
- Machining
- 3D Printing
- Validation Testing
- MatLab

EDUCATION

MS	**Northwestern University**, Engineering Design Innovation	Aug 2025 - Mar 2027
BS	**University of Notre Dame**, Mechanical Engineering	Aug 2019 - May 2023

EXPERIENCE

Clippard, New Product Development Engineer — Jul 2023 - Jun 2025, Cincinnati, OH

- Designed a panel-mount pinch valve for a cell and gene therapy client, iterating on fastener design through internal usability testing to accommodate multi-modal tightening and incorporating a gasket seal to meet wipe-down cleanliness requirements
- Resolved a critical failure for an at-home hemodialysis valve by closely collaborating with the client's engineering team — performing root-cause analysis that brought the beta failure rate to 0%
- Designed and validated a RoHS 3-compliant oxygen mixing blender for a neonatal open care warmer ventilator, delivering a fully functional beta unit within 3 months

Northwestern, Needfinding in Medical Environments — April 2026 - Present, Chicago, IL

- Conducted clinical observations and stakeholder interviews across a Northwestern GI endoscopy clinic — including physicians, PAs, and nurses — to surface unmet needs in Barrett's Esophagus screening workflows
- Synthesized findings into journey maps, process maps, and opportunity frameworks to identify gaps between patient experience and clinical operational constraints
- Developed "How Might We" statements and engineering problem statements bridging patient tolerability, clinician workflow, and regulatory viability to prioritize actionable design opportunities

Northwestern, P&G Sponsored Design Project — Sept 2025 - Dec 2025, Chicago, IL

- Led a multidisciplinary team of 5 engineers, designers, and a cognitive scientist through a full HCD process, from in-home and central site consumer research sessions to a fully functioning physical prototype, for a P&G sponsored packaging project
- Synthesized findings from 5 consumer research sessions into actionable design requirements, directly informing iterative prototype development presented to P&G stakeholders