

Mohid Tahir

Mechanical Engineer

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Education

University of Toronto

Sep. 2021 – Apr. 2026

Bachelor of Applied Science and Engineering

Toronto, ON

- **Program:** Mechanical Engineering + PEY Co-op, Minor: Engineering Business, Certificate: EV Design
- **Related Coursework:** Mechanical Engineering Design, Kinematics and Dynamics of Machines, Electric Vehicle Design, Analog and Digital Electronics, Design for the Environment
- **Dean's Honours List:** Fall 2025 & Winter 2026

Technical Skills and Qualifications

Product & Design: Voice of Customer (VOC), Kano Analysis, House of Quality (HOQ), Competitive Benchmarking, Positioning, Failure Mode Analysis, Iterative Design, Stage-Gate Product Launch, User Research

Methods & Analysis: Agile, Six Sigma DMAIC, Lean, Life Cycle Assessment (LCA), NPV Modelling, Weighted Decision Matrices, Cost Modelling, Stakeholder Management

Software & Tools: SolidWorks (CSWA Certified), Microsoft Office Suite, Python, MATLAB, HTML, CSS, Git, Basic Machining Certification (George Brown College)

Professional Experience

Design Engineer – Convertible Travel Mug

May 2023 – Apr. 2026

Parts Apart (Internship) & Product Design (MIE540), University of Toronto

Toronto, ON

- Designed a convertible travel mug (top-mounted carry handle that detaches and reattaches as a side drinking handle) as the sole design engineer during a 2023 internship at Parts Apart, working directly with the founder across discovery, CAD, and initial prototyping
- Revisited the concept in 2026 through MIE540, running semi-structured Voice of Customer interviews across five user segments (commuter, office, gym, parent, casual) and synthesizing findings via affinity mapping, 3/6/9 priority scoring, and Kano categorization
- Benchmarked five competing travel mug formats against eight weighted customer needs and mapped them on a positioning chart, identifying a clear product gap between compactness and handle comfort
- Translated customer priorities into twelve measurable target specifications with tolerances via a House of Quality matrix, and identified four failure modes with mitigation strategies

Mechanical Engineering Intern (Special Projects)

May 2024 – Aug. 2025

AGS Automotive Systems

Oshawa, ON

- Modelled 20+ bracket, fixture, and process assemblies in SolidWorks with GD&T-compliant drawings, supporting active production programs across the plant
- Applied the MOST (Maynard Operation Sequence Technique) method to benchmark cycle times on key workflows, identifying changes that cut process time by 15%

Communications Manager & Project Team Member

Jan. 2022 – Apr. 2022

Engineering Strategies and Practice II (APS112) - University of Toronto

Toronto, ON

- Served as the single point of contact between a faculty client and a 5-person design team building a teaching device for the course: Six Sigma for Engineers (DMAIC)
- Shortened feedback to revision cycles by roughly 20% through structured weekly touchpoints and a shared requirements log, translating client input into engineering action items

Projects

Low-Speed PMSG for Vertical Axis Wind Turbine

Sep. 2025 – Apr. 2026

Capstone Design (MIE490/491), Client: UTWind

University of Toronto

- Screened four generator architectures using a weighted decision matrix, aligning technical trade-offs with client performance requirements before committing design resources
- Collaborated with teammates to translate the finalized architecture into a fabrication-ready design, presenting trade-off decisions and simulation results to a real external stakeholder (UTWind)

Google Home Housing

Jan. 2024 – Apr. 2024

Design for the Environment (MIE315)

University of Toronto

- Ran a materials trade study comparing plastic and FSC-certified wood for Google Home speaker housings, using hybrid Life Cycle Assessment and 5-year Net Present Value as the decision basis
- Packaged the analysis into a consulting-style recommendation covering cost, environmental impact, brand perception, and end-of-life disposal