Abdualhakim Aldabibi

aalda017@uottawa.ca • (368) 997-5190 • Ottawa, ON • LinkedIn • Website

Projects

Spy Crab Robot – Anchoring Subsystem , MCG 2101 Jan 2026 – Apr 2026

- Independently designed and modelled a **helical-screw anchoring subsystem** of 10+ components in **SolidWorks** for a five-member underwater robot project.
- Combined **gear-train analysis** and **material selection** to meet torque, axis, and saltwater requirements, specifying 316 stainless steel and acetal (Delrin).

AirGate Smart Vent Register , GNG 1103 Sep 2025 – Dec 2025

- Designed the **sensor-pod housing** and **motor mount** in SolidWorks, optimizing geometry for **strength-to-weight**.
- Achieved a **friction fit** to reduce component count through iterative Ultimaker 3D-printing cycles.
- **Won the "Enhancing Energy Efficiency in Residential Buildings" category** at uOttawa Design Day with a working prototype.

Experience

Dairy/Freezer Associate , Walmart Canada Aug 2023 – Present

- Uphold **inventory accuracy** and product freshness through **FIFO** rotation and daily temperature logging.
- Reduce shrinkage through shipment receiving, labeling, binning, and **cycle counts** on internal **inventory systems**.
- Deliver **customer service** to hundreds of shoppers weekly while upholding **food-safety standards**.

Education

BASc Mechanical Eng. & BSc Computing Tech. , University of Ottawa Sep 2024 – Present

- Performed **chemical analyses** (CHM 1311) and **physics experiments** (PHY 1122) under **WHMIS** lab-safety protocols.
- Assisted peers with **SolidWorks** modelling for MCG 1100 projects, reinforcing **CAD best practices**.
- Gained hands-on **machining** experience through **CEED workshops** and the GNG 1103 course.

Ontario Secondary School Diploma , Colonel By Secondary School Nov 2020 – June 2024

- Executive of the Junior Achievement Club; served as **VP of Health & Safety**.
- Received the **Silver Medal Award** from the Ottawa-Carleton District School Board.

Skills

Design: SolidWorks, Onshape, TinkerCAD, 3D Printing (Bambu Lab P2S, OrcaSlicer)

Programming: MATLAB, Python, C++, Java, JavaScript, HTML, CSS

Tools: Linux (Fedora), LibreOffice, Typst, GitHub