KOBE PAAS

University of Waterloo – BASc, Mechanical Engineering

k@kobepaas.com
+1 (647)-964-5623
www.kobepaas.com
linkedin.com/in/kp43

EXPERIENCE

XL Aero – Aerospace Engineering Co-op *Abbotsford, BC | Sep 2024 – Dec 2024*

- Developed CAD models of helicopter parts in SolidWorks by taking precise reverse engineering measurements.
- Created manufacturing drawings incorporating GD&T standards while collaborating with external vendors, resulting in the fabrication of 200 aluminum fittings at a 50% profit margin.
- Performed static failure analysis using both hand calculations and SolidWorks FEA to ensure structural integrity of repaired parts. Results were compiled into detailed engineering reports for submission to Transport Canada.

OtO Lawn – Mechatronics Product Design Co-op *Toronto, ON | Jan 2024 – Apr 2024*

- Selected a new charging connector for the OtO smart sprinkler system to improve reliability and user experience.
- Validated connector design using a Raspberry Pi controlled fixture for water submersion and thermal shock testing.
- Applied DFM principles to integrate a snap-fit mechanism into an injection-molded base plate. Worked with vendors to ensure manufacturability and conducted FEA to verify structural integrity. Design slated for production of 80,000 units.

Woodbridge Group – Mechanical Engineering Co-op *Mississauga, ON | May 2023 – Aug 2023*

- Built a custom test fixture for validating the back pressure and jet straightness of nozzles used in industrial pourhead equipment. Established a certification process, enabling the installation of 40 nozzles into factory equipment.
- Reverse engineered a hydraulic pourhead using dimensional inspection, material analysis, and sourcing of shaft seals. Resulted in the development of a CAD assembly in SolidWorks leading to customer approval of an initial prototype.

Cover Technologies – Production and Quality Intern *Los Angeles, CA | Sep 2022 – Dec 2022*

- Managed manufacturing BOMs and scheduled work orders to maximize factory throughput. Designed a data-driven production planning strategy resulting in the efficient manufacturing of 4 pre-fab homes, and 800 work orders.

Lorcan Technologies – IoT and Automations Co-op *Waterloo, ON | May 2021 – Aug 2021*

- Developed the first prototype of an IoT mesh network for long-range transmission of environmental sensor data.
- Programmed a TI MCU in C and monitored the network using a dashboard built in React. Prototyped a circuit for charging the device via solar panel. Network testing resulted in the data transmission range expanding by 50m.

PROJECTS

Paddle Buddy – Electrical Lead *Waterloo, ON | May 2024 – Apr 2025*

- Designed and implemented the electrical architecture for a canoe paddle-assist device. Design features BLE wireless control using an ESP32, precision steering, and propulsion provided by a BLDC motor with ESC and LiPo battery.
- Developed integration solutions including hardware mounting inside a carbon fiber housing, remote controller design, and full electrical manufacturing—from soldering to final assembly.

SKILLS

Mechanical Design	Electrical Design	Manufacturing	Software
SolidWorks, FEA	Arduino / STM32	FDM 3D Printing	C, C++
GD&T / Drafting	ESP32	Soldering	Python
Ansys	Raspberry Pi	Machining	MATLAB
AutoCAD	KiCAD	Injection Molding	React / React Native