Spencer Pickard

Mechanical Engineer

CONTACT DETAILS

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EDUCATION

Bachelor of Engineering
University of Victoria
Victoria, BC
2017 - 2022

SKILLS

- CAD: SolidWorks, Inventor, NX Siemens, AutoCAD
- Rapid Prototyping & 3D Printing
- DFMA: Sheet Metal, CNC
- Embedded Systems & Firmware (Python, C)
- Testing & Data Analysis
- Leadership and Project Management
- French (Limited Working Proficiency)

AWARDS AND ACHIEVEMENTS

- **University of Victoria Excellence Scholarship:** 4 year Academic Scholarship (2017–2020)
- **Golden Key International Honour Society:** 15th percentile in UVic Engineering Program (2017-2018)

PROFILE

R&D-focused Mechanical Engineer with 4+ years of experience, primarily in design, prototyping, and validating electro-mechanical systems for robotics and automation. Proven track record leading multi-disciplinary projects from concept to pilot production. Expertise in CAD modeling, rapid prototyping, DFMA, system integration, and experimental testing.

EXPERIENCE

MECHATRONICS ENGINEER
CIBOTICA | VANCOUVER, BC | AUG. 2022 - APR. 2025

- Worked within a small multidisciplinary engineering team to design and prototype electro-mechanical subsystems for an automated salad-assembly robot.
- Developed the bowl-dispensing, bowl-elevating, and patented food-dispensing modules, including structural design, mechanism architecture, and actuator selection/integration.
- Led the mechanical assembly, embedded systems integration, and validation testing of the pre-production prototype and first pilot unit.
- Collaborated on system-level architectural redesign and module-level R&D for the second pilot unit.
- Worked with external fabricators and machining vendors to source CNC and sheet-metal parts.
- Assisted with developing Python-based embedded firmware for module and feedback control.
- Trained and supervised mechatronics engineering interns in rapid prototyping methodologies.
- Created and managed structured data-logging spreadsheets and testing databases in Excel to support performance analysis.

MECHANICAL ENGINEERING COOP
CORVUS ENERGY | RICHMOND, BC | MAY 2021 - SEPT. 2021

- Developed and prototyped CAD models for marine battery-pack assemblies, optimizing geometry for manufacturability, FEA structural/thermal analysis, and serviceability.
- Designed protective battery components to mitigate short-circuit risks due to water ingress.
- Performed thermal simulations of a potted fuse assembly using SolidWorks Flow Simulation to evaluate heat dissipation behavior.
- Designed and assembled a mechanical fixture to prevent housing deformation during pressure-based weld integrity testing of sheet-metal battery enclosures.

CAD DESIGNER COOP
ADVANTEC GLOBAL | CHILLIWACK, BC | SEPT 2020 - APRIL 2021

- Designed SolidWorks models and production drawings of marine doors and hatches for sales, quoting, and manufacturing.
- Produced CAD models and drawings for a standardized marine-door product catalog.
- Developed an Excel-based engineering calculator to determine maximum allowable pressure for any marine-door configuration, improving design-verification efficiency.