

Calvin Brereton

Mechanical Engineer

Currently based in: Kitchener, ON, Canada

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Skills

Professional Experience (in years): 3+ 3 - 2 2 - 1 <1

Design

Solidworks Machine Design DFM Concept Design PCB/Hardware Design
Fusion 360 Image Editing DFA AutoCAD Drafting FMEA GD&T

Manufacturing

Injection Molding 3D printing (FDM, SLA, SLS, Polyjet) Lasercutting Hand Tools
Rapid Prototyping Soldering (DIP, SMD, reflow) CNC Machining EDM

Analysis

Excel/Google Sheets GNU Octave Arduino Cost Analysis C++ ImageJ
FEA Image Analysis Git VBA LabVIEW Python TortoiseSVN

Professional

Communication Organization QMS SOPs Work Instructions Agile
Kanban (Jira) Design Reviews Team/Project Management ISO 13485

Work Experience



Education

University of Waterloo
B. A. Sc. in Mechanical Engineering
Waterloo, ON
Sept. 2012 - May 2017

- Graduated with distinction
- Electives focused on:
 - Solid mechanics
 - Automation

Projects

- Designed, iterated on, injection molded, tested, and patented (US20190317115A1) a fully integrated, point of care ferritin blood test
- Designed, fabricated, and programmed a 'Magic Mirror' & a Planck keyboard as Christmas gifts
- Designed custom sensor mounts to optimize VR setup
- Designed & manufactured a custom chicken breast forming mold for a frozen food production line

Miscellaneous

- Self-taught most software skills
- Interests are varied, but include:
 - Travel
 - VR & videogames
 - Hiking
 - Music
- Conversational in French