JOHN WEBSTER

Driven by the vision of a sustainable future.

University of Waterloo
3A Mechatronics Engineering
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Technical Skills:

Mechanical: Solidworks, AutoCAD, CNC Machining, 3D Printing, Laser Cutting, Carpentry, Power tools, Lego™

Hardware: Arduino, Soldering, Raspberry Pi A+, NXP FRDM KL-series boards, Sensors and Instrumentation

Software: C/C++, Python, PLC Ladder Logic, Git/Github, HTML5, Microsoft Office, iMovie

Professional Experience:

Bendix Commercial Vehicle Systems LLC. Sep 2017 – Present

- Conducting HALT testing on ABS ECU's to develop a reliability model based off of HALT results alone
- Updated HMI code (C++) for a faster and larger LCD display on next-generation vehicle cameras
- Designed and tested a more consistent timing circuit for a vehicle backup battery system

ZBoard, Intuitive Motion Inc. Jan – Apr 2017

- Optimized production time of 3D printed footpad components by 40% and the ease of installation tenfold by customizing 3D print settings such as nozzle temperature, infill, and motor speeds
- Analyzed and proposed enhancements for key production and maintenance processes
- Team management experience gained from being shop manager for a week

DisplayPoint Manufacturing Inc. May – Aug 2016

- Developed stamina and strong management skills directing teams of ~20 workers packing rush orders, working long hours without break
- Independently prioritized many technical tasks day to day, completing them all in a timely manner, keeping detailed documentation of all work completed

Past Projects:

Electric Skateboard Dynamometer (ZBoard, Intuitive Motion Inc., Apr 2017):

- Designed and built an electric skateboard dyno operated by Arduino for R&D and analysis purposes, capable of measuring the speed and power of any electric skateboard on today's market
- Developed an automated C/C++ program to analyze power curves of motors, using Arduino and Excel

Noise Reduction Project (Displaypoint Manufacturing Inc., May – Aug 2016):

- Analyzed factory noise and implemented an effective solution 65% cheaper than a third party
- Designed and tested vacuum pump sound enclosures, acoustic panels, and barriers, entailing Solidworks and AutoCAD design work, manufacturing on CNC machines, and thermal analysis

Steering Wheel Redesign (UW Mini Baja SAE Team, Dec 2016):

- Redesigned a stronger and more ergonomic maple steering wheel; hand-laminated, cut, and carved
- Analyzed torsional design strength using Solidworks FEA at a basic level

Arduino-Controlled Phone Unplugger (Eng⊕Math Hackathon, Mar 2016):

- Constructed an automated energy saving device from reclaimed materials utilizing a microphone and servo motor to signal and control when a phone was to be unplugged after a full charge

Activities & Interests:

Piano | Saxophone | Rapid Prototyping | Adventuring | Vlogging | Event Planning
Sustainable Energy | Photography | Longboarding | Snowboarding | Soccer | Hockey