JARED JACKMAN

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jared-jackman.github.io/Portfolio/

EDUCATION

UNIVERSITY OF WATERLOO
B.A.Sc. Mechanical Engineering – June 2020

SKILLS

DESIGN

- SolidWorks: - Surfacing & Simulation
- ANSYS FEA & CFD
- DFMx
- GD&T

MANUFACTURING

- Machining
- Injection Molding
- 3D printing
- Sheet Metal Fabrication

LANGUAGES/HARDWARE

- Python, C/C++, HTML
- MATLAB
- Arduino/RaspberryPi

COURSES

- Mechanical Design
- CFD
- Advanced Manufacturing
- Computer Vision
- Machine Learning
- Control Systems

AWARDS

- Barbados exhibition scholarship - $7500/year
- University of Waterloo President's Scholarship - $2000

INTERESTS

- Product Design
- Autonomous vehicles
- Piloting
- Basketball, Soccer

EXPERIENCE

ENGINEERING INTERN

KITTY HAWK | MOUNTAIN VIEW, CA | Sept - Dec 2019

- Conducted **5-why analysis** to determine the cause of fractures in kill-switch housings and redesigned the housing to eliminate the failure mode
- Performed **tolerance stack-up** analysis on the **eVTOL's** propeller assembly to ensure balanced bearing loads
- Implemented a new kitting process and line-side layout which reduced the manufacturing lead time by **35%**

MECHANICAL ENGINEERING INTERN

ECOBEE INC | TORONTO, ON | Jan – April 2019

- Redesigned the PCB mounting surface in a smart home device and proposed **steel-safe** changes to injection molded plastics; reduced the tooling costs by **$9500**
- Conducted **PFMEA**, revised the assembly process and designed an assembly fixture for a smart light switch, leading to a **31%** reduction in assembly time
- Successfully led **UL** Lead-Test preparations, populated **PCBs** and designed test fixtures to replicate UL test specifications
- Designed and programmed a wi-Fi enabled **PIR sensor** test stand for the Ecobee Smart Thermostat

AUTOMATION DESIGNER

STACKPOLE INTERNATIONAL | HAMILTON, ON | May – Aug 2018

- Designed an automated oiling station which reduced cycle time **30%** to **7 seconds**
- Developed a test station to detect **1 mm** thick bushings in the inner rotor of pumps
- Implemented a new **end-of-arm** tool for assembly line **pick and place** robots

MANUFACTURING INTERN

DYNAPLAS LTD | TORONTO, ON | Sept – Dec 2017

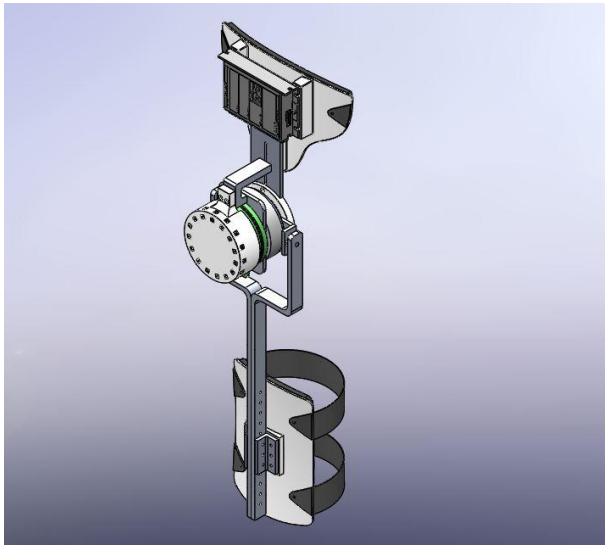
- Utilized **DFMEA** principles to identify shortcomings in a go/no-go gauge; redesigned the gauge resulting in savings of **$20,000/year**
- Implemented new robot enclosures, improving accessibility and reducing downtime
- Designed an automated **pneumatic** swing chute for molding machines to separate conforming and non-conforming parts

QUALITY ENGINEERING INTERN

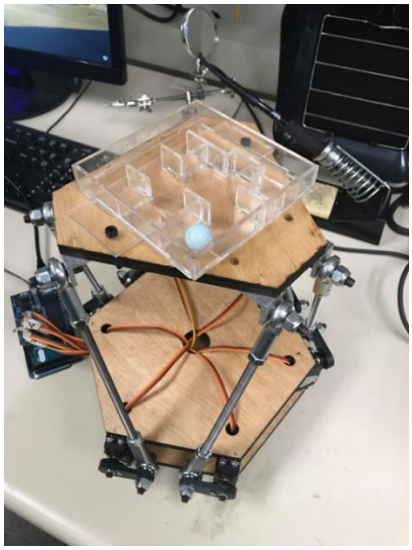
LINAMAR | GUELPH, ON | Jan – April 2017

- Applied **root cause analysis** to determine the cause of oversized journals on differential cases
- Conducted heat treatment studies and adjusted inspection tolerances to account for **thermal expansion**
- Utilized **SPC methods** to conduct capability studies in process inspections in accordance with ISO-9000 and TS16949

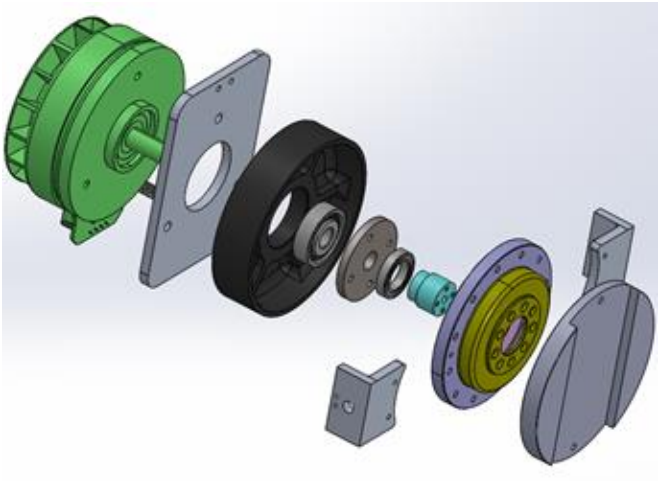
Portfolio – See jared-jackman.github.io/Portfolio/



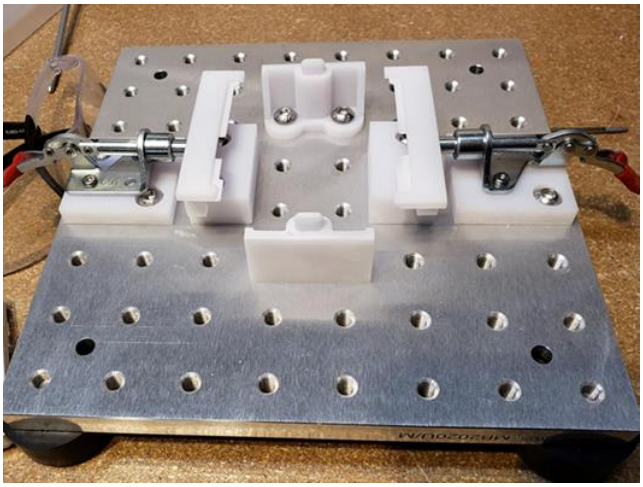
Exoskeleton Prototype 1



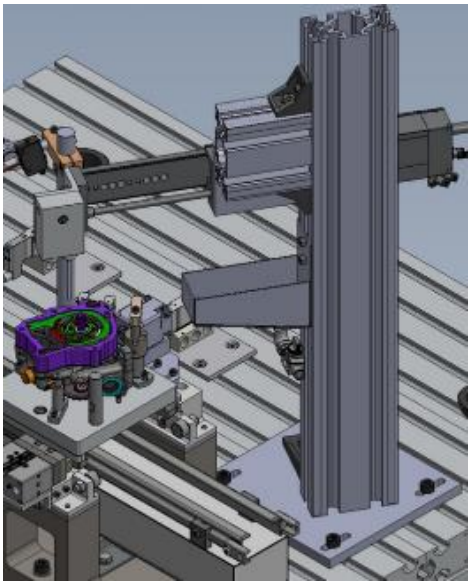
Marble Maze Stewart Platform



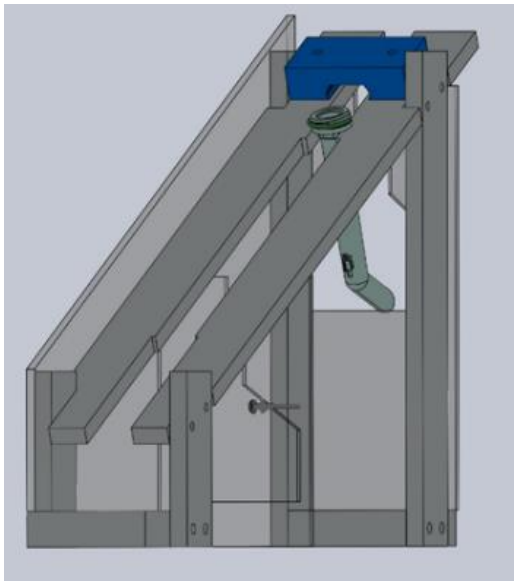
Exoskeleton Joint Assembly



PCB Installation Fixture



Automated Oiling Station



Go/No-Go Gauge