

ZOE KONG

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zoe-kong.github.io/ZK-portfolio/

QUALIFICATION

- Industrial Type: Bio-medical, Nuclear, Additive Manufacturing
- Mechanical Skills: DFM, SolidWorks, GD&T, 3D printing, rapid prototyping

EDUCATION

University of Waterloo

Mechanical Engineering with Management Science Option

Waterloo, ON, Canada

Sept 2015 – Jun 2020

Certified Associate of Project Management (CAPM®)

Aug 2019

EXPERIENCE

Laker Energy Products Ltd.

Quality Engineering Co-op

Oakville, ON, Canada

Aug 2018 – Dec 2018

- Slashed scrap rate by 20% through failure analysis and redesign of cutting fixture
- Reduced inspection time by 16% after reformulating quality examination procedures
- Performed time study on inspection procedure of nuclear workpieces to ensure consistent delivery

SM Research Inc.

Automation Design Co-op

Toronto, ON, Canada

Jan 2018 – Apr 2018

- Optimized performance of cooling module by 170% with validation tests and heat transfer analysis
- Minimized vibrations on driving shaft of system through retrofitting of gear pulley system

Automation Design Co-op

May 2017 – Aug 2017

- Developed 6 concept designs for a pipetting system that can potentially lower the cost by 27%
- Finalized the industrial design of a compatible pipetting system with minimized machine footprint

Mechanical Design Co-op

Sept 2016 – Dec 2016

- Designed and prototyped a test-tube and container module to resolve chemical spilling issues
- Formulated manufacturing drawings for Automated DNA Extractor utilizing GD&T

PROJECT

Liquid Handling System

- Designed and assembled a cost-efficient pipetting workstation to replace massive pipetting
- Eliminated cross contamination between samples by having drop-prevention on pipetting tip
- Extended machine service life by increasing stability of workstation through strength analysis

Arduino Maze Solver

- Designed and built a steward platform driven maze solver with six degree-of-freedom
- Reduced average solving time by 500% by using linear actuator instead of linkage system