Taha Malik

3B Mechanical Engineering

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Experience

Bionik Laboratories – *Hardware Engineer* Sept-Dec 2019

- Collaborated with Industrial Design team to develop electro-mechanical prototype of stroke therapy robot used in design evaluation and testing
- Designed motor components, completed FEA in SolidWorks and communicated with suppliers to ensure accurate parts
- Developed test plan to grade BLDC motors and categorize based on performance under medical grade safety standards (IEC 60601-1)

Skill Development: Product Design, CAD Modelling, Medical Device Standards

Tesla – *Quality Engineer* Jan-Apr 2019

- Completed Root Cause Analysis to rectify quality issues on all Tesla models
- Introduced defect tracking Java app to gain visibility on throughput rate
- Used Continuous Improvement principles to decrease cycle times by 25%
- Eliminated oil defects by performing FTIR tests to identify source of issues
- Designed and fabricated sealer quality tools saving $11,000 annually

Skill Development: Problem Solving, Manufacturing Fundamentals

Mitchell Plastics – *Project Engineer* May-Aug 2018

- Managed injection moulding process for 2019 Toyota Rav4 by training workers, designing packaging, and validating assembly procedures
- Formed part storage and purge system to better utilize warehouse space
- Used VBA to streamline machine trial process from program summary

Skill Development: Project Management, Plastic Manufacturing

Linergy Mfg, Linamar – *Mechanical Engineer* Sept-Dec 2017

- Increased production efficiency by following GD&T to 3D model gauges, fixtures, and custom tools for shop floor
- Fabricated components for welding, stamping, and milling processes
- Designed and drafted manufacturing process for Honda hypoid and driven shaft from raw forging

Skill Development: Metal Manufacturing, Product Launch

Education

University of Waterloo – *Mechanical Engineering* Sept 2016 – Apr 2021

Candidate for Bachelor of Applied Science

- Specialization in Biomechanics
- Focus in Machine Design and Solid Mechanics

Interests

Environmentally Sustainable Technologies, Medical Devices, Product Design and Research, Basketball, Fitness, Reading, Photography

Skills

Mechanical & Design

SolidWorks, Inventor, AutoCAD, CATIA, GD&T, Drafting, FEA, Tolerance Analysis, Simplify3D

Hardware

Arduino, Motors (Brushless DC), Soldering, Rapid Prototyping, Machine/Power tools, CAN

Manufacturing

DOE, RCA, Kaizen, APQP, FMEA, Six Sigma, SPC, 5S, PPAP, Lean Manufacturing, Poka-yoke

Projects

Electric Bike Conversion

- Used Arduino, throttle, DC motor, and e-brakes to convert regular bike into fully electric
- Mounted custom dual freewheel system allowing multiple input methods (pedalling, motor, or both)

Custom 3D Printer

- Used online and text resources to build functional 3D printer (from scratch)
- Modified community source code to work with printer

Android App Development

- Developed Harry Potter *"World Exploring"* app with over 10,000 downloads
- Created fitness app to track user progress, read/write to disk, and suggest workouts