Kurt Stalsberg

R&D Engineer | (360) 798-4953 | kurtxjoseph@gmail.com | KurtStalsberg.com | LinkedIn

Summary:

Mechanical Engineer with 12 years of experience in R&D with multiple patents for consumer electronics. Passion for designing functional and reliable plastic parts with a drive to enhance user experience. Seeking full-time position in Seattle, WA.

Engineering Skills:

- Creo Parametric/Direct (Solid, Surface, Sheet Metal modeling)
- Solidworks (Solid modeling, FEA simulation)
- Problem Solving (8D, Kepner-Tragoe)
- DFMEA
- DFM (strong proficiency for plastic injection molding), DFA
- Minitab Statistical Software (DOE, ANOVA, Capability, Reliability)
- Tolerance Analysis (Worst Case, RSS)
- GD&T (ASME Y14.5)
- Rapid Prototyping (3D printing, Machining)
- PDM/PLM Software: Windchill, Arena
- Project Development Programs: Jira, Airtable
- International Collaboration/Travel

Employment Experience:

Cricut Inc. – Sr. II Mechanical Engineer – Salt Lake City, UT September 2018 - Present

- **Design/DFM** - Design and validate plastic, sheet metal, machined and elastomeric parts from initial concept to mass production (25k MOQ); cosmetic and structural parts, gear trains, and mechanisms with heavy ID and UX requirements; material and finish selection for function and manufacturing based on free body calculations and tolerance analyses
- **Cross-functional Collaboration** - Work with QA to create and conduct component/system tests to evaluate performance and reliability (environmental testing experience); perform initial system troubleshooting efforts to diagnose ME, FW, and EE issues and communicate to respective owners
- **Leadership –** Lead contract engineering firms by defining and prioritizing design efforts of test fixtures for new product development; work with Product Managers to define product requirements
- **Manufacturing Line** - Work with SW engineers to implement machine calibration methods to ensure product quality and reduce cycle time; reduce force calibration station time by 90 seconds without effecting performance
- **DFA/DTC** - Reduced predecessor carriage assembly cost by 34% through lower part count, decreasing motor specifications, and simplifying the assembly process
- **Mechanical Layout** - Provide EEs with mechanical requirements for PCB layouts of various buttons, light pipes, and wire routing configurations
- **International Collaboration/Manufacturing** - Travel overseas to support production qualification builds involving rapid troubleshooting of parts, fixtures, assemblies and machine line calibrations; instruction of contract manufacturers, suppliers and Cricut counterparts
- **Packaging** - Review packaging drop test results and provide design and out of box experience feedback; familiar with ISTA 3A drop and ISTA 2A compression testing
- **Culture** - Panelist for 30+ technical interviews for Mechanical Engineer and Project Manager positions

Hewlett Packard – R&D Mechanical Engineer – Boise, ID September 2013 – September 2018

- **Issue Tracking** - Owner of 118 mechanical issues responsible for monitoring, troubleshooting and developing countermeasure solutions for issues involving print quality, mechanical reliability, paper feed performance, acoustics, and scanner reliability
- **Desing/Tooling** - Designed plastic tray guide lock covers to reduce printer jams, decrease service calls due to improper guide setting and improve customer usability; reduced tooling cost by 25% and standardized parts across product lines
- **FEA** - Designed plastic hinge pocket to enable proper alignment and durability for hinge cycles over product life; validated design and hand calculation with FEA simulation
- **International Collaboration** - Collaborated with and travelled to overseas partners throughout development lifecycle
- **Testing** - Utilized internal test scripting programs to design and execute tests for reliability testing considering customer usage
- **Data Analysis** - Created Matlab scripts to automate data analysis and save ~20 engineer hours per script

Mantec Services Inc – Mechanical Design Engineer – Seattle, WA June 2012 – September 2012

- Designed an internal hinge that required proper horizontal and vertical clearance; performed analysis on composite sandwich platform to determine proper thickness of materials

UW Department of Mechanical Engineering – Undergraduate Researcher – Seattle, WA March 2010 – June 2013

- Researched information relative to animal locomotion and designed a biomimetic linkage system that enabled a robot to move at various velocities with different stepping patterns

Boeing Company (ALVA Intern) – Tool Engineering (Liaison & Design) – Renton, WA June 2009 – August 2009

- Analyzed damaged tools used to build Boeing-737 commercial airplanes and determine solutions to repair them
- Worked with CATIA V4 to edit tool drawings for safety regulations and learn 3D modeling

Patents:

- Laser Crafting Apparatus, System, and Method: US20240139870A1
- Cutting Tool: WO2024259456A3
- Crafting Apparatus: US20240075760A1
- Material Hold-Down for Laser Crafting Apparatus: USD1066439S1
- Tools, Methods, Assemblies and Systems for Crafting Apparatus: WO2025019582A1
- Material Cylinder Feeding Device: WP172085A4

Education:

University of Washington – Seattle, WA Graduated June 2013

BS in Mechanical Engineer (Mechatronics option)
*2013 Outstanding Design Award (Capstone), Annual Dean's List Award
Capstone Project Summary: Design and prototype of a prosthetic foot with active metatarsal joint that allows for a more symmetrical walking gait.

About Me:

Interests: Guitar (song writing), snowboarding, skateboarding, backpacking/camping, mountain biking, The Legend of Zelda
Personality: INTP (Myers-Briggs designation), creative, flexible, adventure-seeking, self-driven/motivated, versatile, knowledge-seeking