Ryan Feetham

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Cal Poly Pomona | B.S. in Mechanical Engineering | Dec 2024

SKILLS

Software: Windchill, Creo, SOLIDWORKS, AUTOCAD, LabVIEW, Microsoft Office
Languages: MATLAB, Simulink, G-code, C++
Other: FDM and SLA 3D-Printing, Soldering, Welding, Lathe, Mill, Various hand tools

WORK EXPERIENCE

Product Development Engineering Intern | ResMed
Sept 2024 - Present

- Independently designed and validated prototype micro-dispensing and pneumatic press machinery using structured testing methods and statistical data analysis, reducing sub-assembly build times by 60%
- Authored SOPs for setup, operation and maintenance of prototype equipment, adhering to ISO 13485 guidelines, and trained 2 technicians on equipment procedures
- Analyzed historical data to set performance targets for class II medical device prototypes and ran a multitude of destructive and non-destructive tests to assess quality performance targets
- Implemented automated inspection programs with vision system programming, reducing inspection time on complex parts from 2 minutes to 10 sec per part.
- Designed and documented over 50 tools/fixtures (metal and resin) to support R&D lab operations, using Creo/Windchill for version control

Part-time Contractor - Mechanical Designer | Rotor Dynamics 101
Jan 2025 – July 2025

- Designed and modeled radial and thrust bearings for turbomachinery using SolidWorks with strict adherence to engineer standards and GD&T for YouTube channel Rotor Dynamics 101
- Produced complete technical drawing packages with BOMs, exploded views and manufacturing documentation
- Delivered revisions quickly for continuous improvement through self-lead design reviews and customer feedback

Tool Design Manufacturing Engineering Intern | ResMed
May 2024 – Aug 2024

- Trained in RCA and 6 Sigma including 5 Why's, Fishbone diagram, FMEA, Gap analysis, Gamba walks
- Led NPI meetings and facilitated design reviews regarding GD&T, DFM and tolerance stack-up, successfully releasing metal components
- Managed vendor communication and procurement to align part fabrication POs with project budget and timelines
- Developed a documentation tracker for 3 assembly lines to track identifying GDP gaps, estimate completion timelines and highlight critical/missing information for audit and compliance
- Validated an inspection fixture through a Gage R&R in Minitab and implemented machine into production line

PROJECTS

Bicycle Frame Vibration Analysis
Research on vibrational frequencies occurring in cycling for bicycle suspension and structural optimization

- Programmed a band-pass filter in MATLAB to remove noise and enhance dominant frequencies in PSD plots
- Cross-analyzed 16,000+ data points per test instance across speed, terrain, and sensor location to identify trends and revise data collection protocols

Prony-Brake Dynamometer
Machine design and assembly of a prony-brake dynamometer to measure power output from torque and RPM

- Coded and wired a microcontroller to average fluctuating live torque readings to a max variability of ±3%

CNC Machine

- Designed and built a custom $400 CNC machine of 402 components, integrating mechanical and control subsystems