

Sharon Hernandez

Mechanical Engineer

Senior mechanical engineer with 9 years in medical device and precision motion systems. Owns subsystem design through 510(k) submissions, with strong tolerance analysis and verification testing experience. Known for catching DFM issues early and keeping suppliers on schedule.

CONTACT INFORMATION

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KEY SKILLS

- SolidWorks, Creo, Windchill
- ASME Y14.5 GD&T (advanced)
- Tolerance stack analysis (1D, Monte Carlo)
- ANSYS Mechanical, Workbench
- ISO 13485, 21 CFR 820 design controls
- Design verification and validation
- DFMEA, pFMEA facilitation
- Precision motion, bearings, ball screws
- Supplier qualification and PPAP
- LabVIEW basics

PROFESSIONAL EXPERIENCE

2020 - Present

Senior Mechanical Engineer, Lakeshore Medical Devices, Minneapolis, MN

- Own the cassette loading mechanism on a Class II infusion pump platform; drove the redesign that closed 14 open CAPA items.
- Authored design verification protocols and reports under ISO 13485, including drop, vibration, and accelerated aging.
- Reduced piece-part cost on the housing assembly by \$3.20 per unit through gating changes and material substitution.
- Run DFM reviews with two molders and one die-cast supplier, escalating tool risks before T1 samples.
- Coach two mid-level engineers through their first design history file submissions.

2016 - 2020

Mechanical Engineer, Crestwood Motion Controls, St. Paul, MN

- Designed precision linear stages for semiconductor inspection, holding flatness within 8 microns over 300 mm of travel.
- Built an in-house test rig with LabVIEW and load cells to characterize ball screw preload across a temperature sweep.
- Released over 200 drawings to ASME Y14.5-2009 and trained two technicians on the GD&T basics needed to inspect them.
- Partnered with controls engineers to tune servo gains during integration.

EDUCATION

M.S. Mechanical Engineering, University of Minnesota, 2016

B.S. Mechanical Engineering, Iowa State University, 2014