

Ephrat (Ephi) Most, Sc.D.

Over 6 years in research and 16 years of medical device industry experience working on various medical devices. Taught Biomechanics at Tufts University but quickly realized I like to be part of bring medical device / system onto the market. In my current role, I manage the Software Quality Design Engineering team for Medtronic Surgical Robotics System. I lead a team of 20+ Design quality engineers working together with developers, testers, regulatory, and others to bring to the market a system that “alleviate pain, restore health, and extend life”.

CORE BELIEFS / QUOTES

“Failures are part of life. If you don’t fail, you don’t learn. If you don’t learn you will never change.”

“The important thing is to not stop questioning. Curiosity has its own reason for existing” (-Albert Einstein)

EDUCATION

Massachusetts Institute of Technology, Boston, MA. June 2004.

Sc.D., Mechanical Engineering / Orthopedic Biomechanics Research (4.7/5.0).

Dissertation title: The Biomechanics of Knees at High Flexion Angles Before and After Total Knee Arthroplasty.

Massachusetts Institute of Technology, Boston, MA. June 2000.

S.M., Mechanical Engineering / Orthopedic Biomechanics Research (4.8/5.0).

Master’s Thesis: Development of a 6-DOF Robotic Test System for Studying the Biomechanics of Total Knee Replacement.

The University of Iowa, Iowa City, IA. May 1998.

B.S.E., Biomedical Engineering subtrack - Bio-mechanics and Bio-electrical (3.95/4.0).

Graduated with Honors and Highest Distinction.

CERTIFICATION

SW DRM Green Belt Certification, in progress

Scaled Agile, Leading SAFE 5.0, April 2021

Design Control Requirements for Industry Practice, AAMI, March 2018

Software Verification and Validation Requirements, Oriol Stat A Matrix

Quality System Regulation 21CFRPart820, Covidien

Project Management for Engineer, ASME

Engineer Intern (EIT), June 1998.

**MEDICAL DEVICE
EXPERIENCE:**

Performed the following work activities:

- | | |
|--|---|
| <ul style="list-style-type: none">• Planning documentations• Requirements Capture• Design Specifications• System and Software Failure Analysis (HA, dFMEA, sFMEA, OTS, SOUP)• Cybersecurity (CVSS, SBOM, Threat Model) | <ul style="list-style-type: none">• V&V efforts (manual and automated)• Traceability• Image Analysis Data Processing• Data Analysis• System Modeling• Injury Biomechanics• Statistical analysis (e.g ANOVA) |
|--|---|

Experience with the following products:

- Surgical Robotics - quality
- Software for medical device (numerous) Class I, II, and III (Software classification A, B and C)
- In Vitro Diagnostics (IVD)
- Glucose Monitoring Devices (external and implantable)
- Insulin pump
- Orthopedic Implant process/design software (e.g. knee, spine, skull)
- Diagnostic Software
- Cell image analysis
- Image analysis and various imaging tools
- Neonatal surgical tools
- Joint modeling (knee) and design
- Robotics Testing System for Joint Kinematics, Kinetics, and Contact
- Control algorithms for a robotic testing system
- 3D reconstruction using image processing and image analysis
- Kyphoplasty (invasive surgical procedures for treating osteoporotic fractures) techniques.
- Spine load modeling
- Designed fixtures and jigs for mechanical testing of biological specimens