

ZEMENFES K. MARIAM

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PROFESSIONAL PROFILE

Result- oriented manufacturing engineer with over fifteen years' experience in mechanical design, automation systems and new product development. Accomplished engineer with ability to clearly define project goals and effectively use interpersonal skills to achieve them.

Mechanical Engineering Design	DOE/TQM/DFM/GDT/SPC
Pro-E/SolidWorks	Design for Manufacturability
Automated System Integration	Robotics
Laser Applications	

PROFESSIONAL EXPERIENCE

Sr. Manufacturing Engineer

Viant Medical, Wheeling, IL 2015 - Present

- Medical devices process development using laser applications of new products from concept to product launch.
- Developed engineering prototypes and design at early stage of product development new product processes.
- Develop laser weld, laser cutting and laser marking applications of medical devices, execute IQ/OQ/PQ protocols and validate products for production release.
- Integrate automated robotic laser weld system of medical devices, develop weld processes and validate system for high volume production.

Senior Manufacturing Engineer

Covidien, Boulder, CO 2007 – 2015

- Designed energy-based medical device processes from product concept to launch.
- Developed new products engineering prototypes, tooling and fixturing design at early

stage of product development.

- Validate new product manufacturing processes to meet product design specifications and generate IQ/OQ/PQ reports and product assembly drawing for documentations.
- Develop laser weld joint applications of medical devices, integrated automated systems into manufacturing line.

Senior Process Engineer

Cornice Corporation, Longmont, CO

February 2006 – August 2006

- Develop micro drive data storage product processes, Provided DFM on initial phase of product development and executed product qualifications
- Provided technical support of automated manufacturing system integrations and developed tooling design concepts to optimize manufacturing processes
- Developed process control systems and characterize process capabilities to improve product quality and performance
- Qualified new product processes, document manufacturing instructions and transferred products overseas. Provided technical support for continues improvement and drive process performance issues into product design for total quality control.

Manufacturing Engineer

DataPlay, DPHI Inc. Boulder, CO

2004 - 2006

- Designed optical data storage product processes and defined product design specifications and quality requirements.
 - Developed concepts to prove product design specifications through prototyping, modeling
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analysis and pilot build runs.

- Adapted detailed test matrix and procedures to characterize product process performance by varying design concepts and evaluate product design specifications and quality requirements.
- Develop detail manufacturing instructions of product assembly and test methods to verify product introduction into manufacturing.
- Designed and integrated manufacturing product line tools and fixtures of optical actuator lines and technical support of automated systems.

Senior Manufacturing Engineer

Maxtor Corporation, Longmont, CO

1998 – 2003

- Developed automated robotic system of disk drive product assembly line processes and integrated cell into manufacturing line
- Designed automated head stack assembly system of hard disk drive, integrated with work cell stations and saved \$2M actuator cost annually
- Developed and implemented system software for Seiko robots and optical laser measurement system of disk drive head suspensions
- Evaluated electrical and mechanical assembly of new head stack products and verify engineering specifications and process capabilities
- Designed tooling and fixtures for head stack assembly to support overseas manufacturing line of new products.
- Executed new product transfer to manufacturing line and developed methods for manufacturability and insure product quality requirements.

R&D Engineer, Product Development

KOMAG, INC. San Jose, CA

1990 – 1998

- R&D new product development and provided manufacturing process support. Define product design specifications and transferred new product from R&D to manufacturing.
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- Performed sputtering system analysis and disposition corrective actions and failures discovered during product transfer
 - Executed process improvement plans for product optimization and continuous improvement plan and quality controls.
 - Evaluated flight height performance of laser zone disks and characterized bump height correlation with laser setting parameters through DOE run's
 - Designed multi-purpose end-effectors of robot pick-n-place system for product flexibility and integrated with product line conveyor systems
 - Performed electrical, mechanical and pneumatic troubleshooting of Adept, Seiko, GMF and Stabuli robots in cleanroom environment.

EDUCATION

SAN JOSE STATE UNIVERSITY, San Jose, CA

M.S. Industrial & Systems Engineering 1996

Project: Simulation of Sputter System and Process Control

TEMPLE UNIVERSITY, Philadelphia, PA

B.S. Mechanical Engineering 1988

Honor: National Mechanical Engineering Honor Society

PERSONAL

US citizen