

ELSA NLANG MONSUY

Mechanical Engineer

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PROFESSIONAL SUMMARY

Dynamic Mechanical Engineer with 7+ years of progressive experience in precision manufacturing, quality systems, and process optimization. Proven expertise in mechanical design, quality control protocols, and cross-functional team leadership across diverse industrial environments. Demonstrated success in international project execution, regulatory compliance, and continuous improvement initiatives that drive operational excellence and cost reduction.

PROFESSIONAL EXPERIENCE

Mechanical Designer

Systel, Houston, TX — September 2021 - Present

- Develop comprehensive parts specifications and Bills of Materials through Engineering Change Order (ECO) systems, ensuring precise material control for complex mechanical assemblies
- Generate and maintain technical assembly documentation utilizing Autodesk Inventor, supporting manufacturing excellence and quality assurance protocols
- Execute detailed engineering drawings and technical layouts using AutoCAD, Inventor, and SolidWorks to support manufacturing operations and regulatory compliance
- Provide technical expertise and troubleshooting support to manufacturing teams during production assembly, optimizing operational efficiency and product quality
- Collaborate with external manufacturers and vendors to establish component specifications, ensuring supply chain reliability and quality standards
- Support sales and marketing initiatives by developing conceptual drawings and product modeling, facilitating client presentations and project approvals

Manufacturing Engineering Intern

Diamond Blocks Services, Malabo, Equatorial Guinea — May 2018 - August 2018

- Analyzed and interpreted complex engineering drawings and technical blueprints to ensure accurate manufacturing specifications and adherence to design standards
- Executed comprehensive time-motion studies to identify process optimization opportunities and enhance production capacity through systematic workflow analysis
- Performed rigorous validation testing of product sub-systems to verify reliability performance and ensure compliance with engineering specifications
- Delivered integrated technical support across maintenance, production quality, and safety departments to ensure operational excellence and regulatory compliance
- Participated in team leadership efforts to continually improve product development processes, contributing engineering analysis and innovative solutions

Quality Control Inspector

AmTex Machine Products, Houston, TX — August 2016 - April 2018

- Executed comprehensive quality control inspections to maintain consistent product standards and ensure adherence to customer specifications
- Conducted first article inspections and precision dimensional analysis to verify compliance with engineering tolerances and manufacturing requirements
- Facilitated weekly cross-functional evaluations with material operations and planning teams to optimize resource allocation and workflow efficiency
- Ensured non-conforming products were properly identified and documented, maintaining detailed quality records for traceability and continuous improvement
- Maintained, monitored, and recorded comprehensive information pertaining to product and production processes, supporting quality management systems and regulatory compliance
- Performed systematic specification verification, dimensional analysis, and calibration audits to ensure measurement system accuracy and traceability

EDUCATION

Bachelor of Science in Mechanical Engineering

University of Houston, Houston, TX — May 2018

CORE COMPETENCIES

Engineering & Design:

SolidWorks, AutoCAD, Autodesk Inventor, Mechanical Design, Engineering Change Orders (ECO), Technical Documentation, Blueprint Interpretation, Assembly Design, Product Development

Quality Systems & Manufacturing:

Quality Control Protocols, First Article Inspection, Dimensional Analysis, Statistical Process Control, Manufacturing Process Optimization, Regulatory Compliance, ISO Standards, Lean Manufacturing

Project Management & Leadership:

Cross-functional Team Leadership, Process Improvement, Vendor Relations, Supply Chain Management, International Project Coordination, Risk Assessment, Continuous Improvement Initiatives

Technical Systems:

ERP Systems, MS Project, Advanced Excel, Technical Writing, Data Analysis, Calibration Management, Production Planning, Cost Control

ENGINEERING PROJECTS & ACHIEVEMENTS

- **International Manufacturing Operations:** Successfully managed complex manufacturing projects in West Africa, coordinating multi-cultural teams and ensuring adherence to international quality standards while maintaining operational efficiency in challenging environments
- **Process Optimization Initiative:** Led comprehensive time-motion studies resulting in 15% improvement in production capacity through systematic workflow analysis and implementation of lean manufacturing principles
- **Quality System Enhancement:** Developed and implemented enhanced quality control protocols that reduced non-conforming products by 20% while maintaining strict adherence to customer specifications and regulatory requirements
- **Technical Documentation Standardization:** Created standardized technical documentation procedures using advanced CAD software, improving design consistency and reducing engineering change order processing time by 25%
- **Vendor Quality Management:** Established comprehensive vendor qualification and monitoring systems, ensuring supply chain reliability and component quality standards across multiple international suppliers