Josefina Brakus

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EXPERIENCE

MECHANICAL GROUND SUPPORT EQUIPMENT DESIGN ENGINEER

Los Angeles, CA
02/2015 – present

- All phases of manufacturing, assembly and test of spacecraft and manned / autonomous aircraft
- Designing, developing and implementing testing methods and equipment in multiple tests
- Analyze hardware configuration and processing solutions
- Test hardware conformance to specifications
- Generate 2D/3D layouts of mechanical support equipment
- Support metal fabrication using standard techniques
- Design and oversee the fabrication, installation, modification, maintenance, and repair of mechanical equipment such as: conveyor systems, production machinery, and other material-handling equipment used in fabrication, assembly, and other production functions

DESIGN & DEVELOPMENT MECHANICAL ENGINEER

Boston, MA
08/2011 – 09/2014

- Conduct effective design reviews to share your work and gather feedback for alternatives and improvements
- Design component and assembly concepts, identification of cost reduction and product improvement opportunities
- Create 3D models of new mechanical components and assemblies
- Work with other engineers to ensure that thorough engineering analyses have been completed and risks to cost, quality and delivery have been identified
- Assemble functional and aesthetically accurate prototypes for review with senior management
- Work closely with our purchasing team and vendors to source and quality production tooling
- Rapidly iterate through the design process to arrive at a solutions that meets cost and quality objectives while meeting key product specifications

MECHANICAL ENGINEER GEAR DESIGN

New York, NY
07/2004 – 05/2011

- Develop design and analysis documentation, e.g. specifications, design practices, site work instructions, certification document
- Self-motivated, working independently under high pressure to make delivery within timeline
- Fluent English (written & verbal) for working in a global team. Self-motivated
- Conduct site failure analysis and develop up-tower retrofit solution
- Manage product through the life cycle and maintain quality of drawings, BoM and specifications
- Deliver gear macro geometry, strength evaluation and tooth modification proposal for gearbox development by using advanced calculation program/software
- Lead design activities for wind turbine component gearbox development, including main gearbox, pitch and yaw gearbox

EDUCATION

CALIFORNIA STATE UNIVERSITY, LOS ANGELES

Bachelor's Degree in Mechanical Engineering

SKILLS

- Excellent interpersonal and organization skills in conjunction with excellent written and oral communication capabilities
- Proficiency with 3D CAD design packages, like Solidworks/Inventor and Autocad
- Familiarity with Zemax and basic optical design highly desired
- Ability to perform multi-disciplinary trade studies to evaluate configuration alternatives for functional and spatial integration
- Experience in thermal management and fluid dynamics of cooled cameras and vacuum chambers is highly desired
- Experience with Finite element analysis tools for predicting thermo-mechanical stability, like Ansys/FEMAP
- Experience with structural analysis of large moving structures
- Experience with the mechanical tolerance of optical systems (mechanical, optical, thermal)
- Experience with opto-mechanical design of optical systems and optical component assemblies
- Mechanical expertise recognized and sought after by those outside the business