



JOB DESCRIPTION

JOB TITLE: Senior Mechanical Design Engineer

JOB CODE:	EXEMPT/NON-EXEMPT: Exempt
REPORTS TO: Engineering Manager	DEPT.: Engineering
DEPT. APPROVAL: VP-GM	DATE: 02/10/2022
MANAGER LEVEL:	EEO CODE:

BRIEF POSITION SUMMARY:

The Senior Mechanical Design Engineer will take technical lead on specific projects as identified by the Engineering Manager. Will provide assistance to the Engineering Manager in coaching other Mechanical Engineers to develop design skills and work to the departmental processes. Researches and develops ideas for new products and systems.

DUTIES and RESPONSIBILITIES:

- Plays an integral role in all structural designs for the Advanced Design team
- Perform aircraft conceptual and preliminary structural design
- Perform trade studies (weight, performance, structural sizing)
- Create engineering designs, layouts and drawings for aircraft composite and metallic parts.
- Lead a team of designers/draftsman to complete engineering drawing packages
- Complete designs using Catia, Cameo, and Solidworks design software
- Knowledge of composites manufacturing - hands-on experience with composites part fabrication and assembly processes a plus
- Experience modeling complex surfaces
- Experience designing composite structures using ply layer maps and tables
- Experience using model based definition
- Familiar with Enovia and PDM
- Working knowledge of GD&T
- Problem solving skill sets
- In-depth understanding of maintaining complex Bills of Material
- Pursues all cost saving opportunities to maximize project profitability
- Performs critical path analysis and prepares and implements work-around plans to ensure the successful completion of projects

*The company reserves the right to add or change duties at any time

EDUCATION, EXPERIENCE, and QUALIFICATIONS:

- Degree in mechanical engineering or related

- 10+ years of experience in related field
- Extensive experience in a similar role ideally within military/aerospace or similar industry
- Supervisory experience
- Collates cost data relating to the mechanical design
- Ensures the mechanical design functionally meets the user's requirements
- Produces designs to specified deadlines and achieves the required timescales
- Sets an example to the other members of the mechanical design team on how to manage designs
- Confident, proactive character, ability to take the lead in challenging situations
- Excellent verbal and written communication skills
- Good IT skills
- Critical thinking along with active listening
- Committed to undertaking professional development
- CATIA V5 / Solidworks and Cameo (10,000+ hours minimum)
- GD&T experience.
- Self-starting team player with the ability to work tight deadlines
- Must be a U.S. citizen
- Ability to obtain and maintain a U.S. Security Clearance at the appropriate level (requires U.S. Citizenship)
- Secret Clearance Active/Eligible Desired
- Holds and able to maintain a valid U.S. Driver's license
- Must pass pre-placement drug screen and background investigation

PHYSICAL REQUIREMENTS:

- Must be able to sit/stand for extended periods – 9 hours minimum
- Physically able to handle items weighing up to 40lbs unassisted
- May be exposed to high level noise, dust, and vibration and chemical fumes (within OSHA limits)