



Job Description-Mechanical Engineer

INTRODUCTION

Scojet is a product design, precision machining and international manufacturing company.

As a product design company, you will work on a variety of projects in a multitude of industries such as automotive, agriculture, aerospace, construction, consumer products, electronics, engines, lawn & garden equipment, machinery, medical, outdoor products, powersports, and sporting goods.

Our company is different, instead of having management or HR write a job description our team worked together to give you direct insight into the job.

When you are part of the Scojet Team you are joining a company with a reputation for executing difficult and exciting projects from conception through commercialization with fast development cycles that allow you to see results in weeks or months.

At Scojet we like to challenge ourselves and solve difficult problems with unique and inventive solutions, we try to balance work pressure versus reward, do you want to feel a sense of contribution and accomplishment at the end of the day?

We are looking for Team members that like to be challenged everyday not just on projects but learning new tools, techniques, software, and equipment, people who look forward to continuous training and education to be experts in their field.

Do you want to work with the latest software, prototype equipment, testing gear, development tools and training? Do you want the right balance of computer work and hands on prototyping, manufacturing and testing?

You get the opportunity to take ownership and be involved in every stage of the project, at the same time we are team that likes to communicate and collaborate, sharing our knowledge and growing as a collective.

Scojet believes in investing in the future of our Team, currently we cover 100% of employee health care insurance including dental and optical plans, a \$25,000 life insurance policy, 401k with 100% matching on the first 3% and 50% on the next 3%, 7 paid holidays and 2 weeks paid vacation, paid training and education classes.

Scojet is a global company, there is potential for international travel if desired.

We are looking for passionate people, the kind that wakes up everyday excited about going to work and amazed you get paid to do it.

Skills can be taught but passion cannot.

As a team member of Scojet, you will collaborate with each department to create and deploy disruptive products. Come work at a growing company that offers great benefits with opportunities to grow and learn alongside accomplished leaders.

This position is both creative and rigorous by nature you need to think outside the box. We expect the candidate to be proactive and have a "get it done" spirit. To be successful, you will need to have solid solving problem skills.

We are looking for Mechanical Engineers that are excited about working on projects utilizing the following skills:

SKILLS

- Prefer minimum of 3 years of experience in a consulting or in-house environment, working primarily product design, preferably outdoor power equipment, agriculture, or automotive.
- An undergraduate or graduate level degree in Mechanical Engineering or Industrial Design
- Design of mechanical components and assemblies
- Knowledge of hydraulic and pneumatic systems
- Knowledge of metal forming operations, sheetmetal, wire forming, fabrication
- Knowledge of castings processes, investment, die, gravity casting
- Knowledge of plastic manufacturing process, injection molding, thermoforming
- Knowledge of engines and automotive systems
- Ability to use FEA and analyze failure modes.



- Demonstrated ability to articulate and defend an informed point of view around design solutions The ability to think beyond hardware and UI in your conceptualization of solutions across a broad range of design problems.
- Track record of translating program objectives into innovative design solutions
- A great eye for details and passion for quality
- A keen sense of what is current and what is coming next
- Experience working on collaborative, multi-disciplinary teams
- Fluent in 2D and 3D software tools, PTC Creo or Solidworks preferred.
- Excellent communication and storytelling skills.

Design and development of various mechanical or plastic systems, structures, and components. These may include body components, trim, seating, bumpers, flooring, suspensions, steering, chassis, mechanical control systems, engines, drive trains, basic understanding of engines, electrical and other automotive systems, etc.

- Selection of material and manufacturing method for metal and plastic parts
- Develop Project Timelines in support of Program milestones.
- Revise/review and create Functional Specifications.
- Revise/review and create Engineering Design Standards Develop Design Packaging Layouts.
- Create and maintain DFMEAs and create test and analysis plans for Product Validation.
- Perform Tolerance Studies on Components and Assemblies. Development and Release of Engineering Component and Assembly Drawings.
- Perform cross functional design reviews and Design for Assembly (DFA) and Design for Manufacturing (DFM)
- Assessments on Components & Assemblies.
- Follow Scojet product development process and methods for tracking project status and open issues.
- Leads project elements and maintains frequent contact with other functional areas, contract engineering services and suppliers.

POSITION REQUIREMENTS:

Ability to conceptualize a product through rough hand sketching and/or computer-generated tools.

Must be able to communicate both internally with the team and be able to present and explain complex technical information in a way non-technical customers can understand.

Knowledge of design principles for mechanical and plastic components that are manufactured utilizing a variety of processes as well as the limitations with each process.

An understanding of DFMA for the same processes is desired.

Knowledge of the characteristics of materials and ability to choose the most appropriate material for an application, including additives and modifiers.

Strong oral and written communication skills

Proficiency in usage of CAD and Product Life Cycle tools.

Possesses and demonstrates skills to provide solutions to a variety of technical problems of moderate scope and complexity.

Possesses and demonstrates a frequent use and application of engineering principles, theories, concepts, and techniques.

Must be able to read part and assembly blueprints and be proficient in GD&T.

OTHER DESIRED SKILLS:

Electrical/electronic or programming experience. (Python, C++, Arduino)

Experience in metal processing, design for manufacturability to include tooling and equipment, quality processes, and cost estimating.



MRP or ERP experience preferred.
PDM or other CAD database tools
Visual Basic or other programming languages.
Engineering analysis software.
Ability to perform Finite Element Analysis (FEA) on components and assemblies for stress.
Moldflow
Microsoft office products
MacOS and software

Qualifications

EDUCATION: (any)

- Bachelor of Science Mechanical Engineering from accredited 4-year program, or equivalent
- Bachelor of Science Plastics Engineering from ABET accredited 4-year program, or equivalent
- Bachelor of Science Industrial Design from accredited 4-year program, or equivalent

ADDITIONAL INFORMATION:

Travel Requirements: 10%

The responsibilities outlined in this position description serve as a general guideline for the position and are not exhaustive of all duties inherent in the job.

Scojet is an Equal Opportunity Employer (M/F/D/V)