



Title: Mechanical Design Engineer

Status: Exempt Full Time

Reports To: VP Engineering

Department: Engineering

Summary of Position:

Responsible for the design, fabrication, testing and evaluation of ultracapacitor products including improvements in the existing designs, cost reduction and development of new designs.

Essential Duties and Responsibilities:

- Design from first principles original ultracapacitor modules to be used in automotive, stationary, industrial, and cleantech industries
- Working closely with applications engineering and directly with customers, define requirements and detailed specifications of product
- Establish and maintain timelines and resource plans for multiple simultaneous projects
- Responsible for the thermal and mechanical characterization of the prototype product
- Responsible for the writing of all post design/build documentation including performance specifications, test data and operating procedures
- Responsible for the writing of all documentation, including BOMs and detailed fabrication and assembly and quality procedures, required for serial production.
- Working closely with purchasing, determine the most appropriate component suppliers for serial production.
- Assist Manufacturing Engineering and Quality Control in establishing the appropriate standards and the tools to measure and evaluate products.
- Interface with other Ioxus team members for system design and integration
- Maintain design responsibility for existing Ioxus products
- Support warranty evaluation and design responsible defect investigation
- Observe appropriate environmental, safety and health policies and practices.
- Perform other related duties as assigned by the supervisor.

Education/Experience:

- Bachelor's degree in an applicable engineering field, computer science, or a professional license. 3-5 years engineering experience is preferred, but not required for the right candidate
- Expertise in SolidWorks. Experience in Comsol Multiphysics and thermal design considered a plus.
- Knowledge of GD&T, tolerance stacks, and familiar with manufacturing processes like sheet metal, extrusion, welding and injection molding.
- Excellent communication skills, ability to conduct technical reviews and communicate expectations to customers and team members.
- Experience with DFMA and FMEA procedures
- Product packaging experience preferred



Physical Demands:

	Amount of time spent			
	None	Under 1/3	1/3 to 2/3	Over 2/3
Stand		X		
Walk		X		
Sit				X
Use hands to finger, handle, or feel			X	
Reach with hands and arms			X	
Climb or balance	X			
Stoop, kneel, crouch, or crawl		X		
Talk or hear			X	
Taste or smell	X			
Lifting up to 40 lbs.		X		

Work Environment:

	Amount of time spent			
	None	Under 1/3	1/3 to 2/3	Over 2/3
Wet or humid conditions (non-weather)	X			
Work near moving mechanical parts		X		
Work in high, precarious places	X			
Fumes or airborne particles	X			
Toxic or caustic chemicals	X			
Outdoor weather conditions		X		
Extreme cold (non-weather)	X			
Extreme heat (non-weather)	X			
Risk of electrical shock			X	
Risk of radiation	X			
Vibration	X			

These requirements are intended to provide a general guideline regarding the nature and level of work being performed, and the qualifications required to successfully perform the job. Final assessment of a candidate's qualification versus these requirements, and the ability to accept deviations from these ideal qualifications, is left to the discretion of the hiring manager, based on business needs at the time of hire.

By signing below, I acknowledge that I have read and understand the above job description.

Employee Approval: _____ Date: _____

Management Approval: _____ Date: _____

Human Resources: _____ Date: _____