



Job Title: Motor Engineer		Location: Blacksburg, VA	
Reports to: Engineering Manager		FLSA: Salary/Exempt	
Rev #: 0	Rev Date: 3/21/2022	Nature of Changes: new document	Approved by: PHunt

**SUMMARY OF FUNCTIONS:**

The Motor Engineer is responsible for the mechanical and electromagnetic design of electric motors within the Research and Development Department. A successful motor engineer will have the skills necessary to drive product improvement and will be integral in securing present and future business by consistently meeting/exceeding Voice of Customer requirements.

**MAJOR DUTIES AND RESPONSIBILITIES:**

- Generate the mechanical design of motors based on customer specifications
- Generate electromagnetic designs based on various technologies for motors and generators
- Report on key metrics relating to design work in the department
- Lead other employees to meet the department expectations for productivity, quality, and goal accomplishment
- Work cooperatively, constructively, and productively within a diverse, high-growth, entrepreneurial environment
- May be required to perform some project management work as needed on smaller new product development
- Provide technical support for sales and marketing as required
- Participate in prototype build work
- Take on the role of key technical expert for customers

**KNOWLEDGE, SKILLS, AND ABILITIES NECESSARY:**

- Knowledge of the functions, operation, and mission of the specific department
- Demonstrated ability to serve as a knowledgeable resource to the organization's management team that provides leadership and direction
- Excellent verbal and written communication skills
- Self-motivated and able to work in a professional environment with limited direct supervision
- Ability and willingness to work directly with customers on resolution of complex technical issues
- Have an analytical mind which can apply troubleshooting skills systemically and methodologically to identify root causes and to resolve problems
- Ability to travel nationally and internationally on an occasional basis
- General motion control knowledge, how to troubleshoot and “tune” a motion/vehicle system
- Capable of assisting in hands-on lab work
- Proactive by nature with a positive attitude and works well in a team setting
- Ability to develop strong professional relationships both internally and externally to facilitate good communication
- System wiring and safety experience preferred
- Ability to read, analyze, and interpret general business periodicals, professional journals, technical procedures, or governmental regulations in English



- Ability to write reports, business correspondence, read/write technical manuals as needed
- Ability to effectively present information and respond to questions from groups or managers, clients, customers, and the general public
- Ability to solve practical problems and deal with a variety of concrete variables in situations where only limited standardization exists
- Ability to interpret a variety of instructions furnished in written, oral, diagram, or schedule form

**EDUCATION and/or EXPERIENCE**

- Experience with Teamcenter/NX preferred
- Ansys and/or Nastran experience preferred
- Bachelor’s degree and 5 years applicable experience or Master’s degree & 2 years applicable experience
- Experience with MotorCAD and/or SPEED preferred

**PHYSICAL DEMANDS:**

The physical demands are necessary to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

	None	Occasionally	Regularly	Frequently
<b>Stand</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Walk</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Sit</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Use hands to finger, handle, or feel</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Reach with hands and arms</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Climb or balance</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Stoop, kneel, crouch, or crawl</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Talk or hear</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Lifting: up to 10 pounds</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Lifting: 10 – 25 pounds</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Lifting: 25 – 50 pounds</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Vision Requirements:** (Check all that apply.)

- Close vision (clear vision at 20 inches or less)
- Distance vision (clear vision at 20 feet or more)
- Color vision (ability to identify and distinguish colors)
- Peripheral vision (ability to observe an area that can be seen up and down or to the left and right while eyes are fixed on a given point)
- Depth perception (three-dimensional vision, ability to judge distances and spatial relationships)
- Ability to adjust focus (ability to adjust the eye to bring an object into sharp focus)
- No special vision requirements



*InMotion US reserves the right to modify, interpret, or apply this job description in any way the company desires. This job description in no way implies these are the only duties, including essential duties, to be performed by the employee occupying this position. This job description is not an employment contract, implied or otherwise. The employment relationship remains "at-will." The aforementioned job requirements are subject to change to reasonably accommodate qualified disabled individuals.*

*InMotion US is an Equal Opportunity Employer that does not discriminate on the basis of actual or perceived race, creed, color, religion, alienage or national origin, ancestry, citizenship status, age, disability or handicap, sex, marital status, veteran status, sexual orientation, arrest record, or any other characteristic protected by applicable federal, state or local laws. Our management team is dedicated to this policy with respect to recruitment, hiring, placement, promotion, transfer, training, compensation, benefits, associate activities and general treatment during employment.*

Associate's Printed Name: Date:

Associate's Signature:

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