SUMMARY: VRC Metal Systems, LLC, (VRC) is seeking a driven and detail-oriented individual to join VRC’s Additive Manufacturing (AM) team as a Process Development Engineer. The AM Process Development Engineer is expected to design, develop, and produce Additive Manufacturing processes and evaluation procedures. In addition, the AM Process Development Engineer will facilitate development and testing of process conditions, motions system control, and all secondary processing required in support of company capabilities development and application development for various processes.

QUALIFICATIONS: To perform this job successfully, the individual must be able to perform each essential duty and responsibility in a safe and satisfactory manner. The requirements listed below are representative of the knowledge, skill, and/or ability required.

ESSENTIAL JOB FUNCTIONS:
• Develop advanced additive manufacturing (AM) processes and procedures for various materials.
• Collaborate with the Wire-DDED Technology Program Manager to plan projects and small-scale production runs.
• Operate and maintain equipment like cold spray and wire-DDED equipment, robotics, mechanical testing frames, hardness testers, grinding/polishing equipment, light optical microscopes, machine shop tools and machines.
• Adjust variables in AM processes to improve existing build procedures and create new ones.
• Evaluate generated test data and troubleshoot processes and associated equipment.
• Build reports using Microsoft Office (Excel, PowerPoint, and Word) that summarize project efforts for internal and external reporting to customers.
• Develop long-term planning to coordinate multiple complex development activities with the Wire-DDED Technology Program Manager.
• Maintain documentation of the Wire-DDED tests that conforms to AS9100D requirements.

Reasonable accommodations may be made to enable individuals with disabilities perform the essential functions. Other duties may be assigned.

SUPERVISORY RESPONSIBILITIES:
None

EDUCATION and EXPERIENCE:
• Bachelor of Science in Engineering or related field required.
• Solid understanding of engineering systems and function, at individual component and system levels.
• Knowledge of heat transfer modes, materials behavior under stress and at temperature, and stress/thermal analysis.
• Understanding of analytical and numerical methods (finite element and finite difference) for modeling and simulations of processes and various physical phenomena.
• Understanding of various welding processes and their applications in additive manufacturing.
• Understanding of robotics systems.

LANGUAGE SKILLS:
• Read and interpret documents in English such as safety rules, operating and maintenance instructions, and procedure manuals, newspapers, periodicals, journals, and equipment manuals.
• Ability to develop, write, format, and communicate policies and procedures.
• Write routine business and technical reports, correspondence, business letters, summaries, and reports in English using prescribed format, conform to all rules of punctuation, grammar, and style.
• Ability to speak effectively in English with various groups, such as customers or other employees.
• Ability to develop and maintain a professional working relationship with all team members.

COMPUTER SKILLS:
• Microsoft Word, PowerPoint, and Excel at an advanced level and be familiar with the use of Microsoft Teams and OneNote.
• Proficiency in CAD/CAM software, and robotics programming software highly desired.
• Proficient in electronic forms of communication including email, web searching, and data organization.

REASONING ABILITY:
• Apply common sense understanding to follow instructions furnished in written, oral, or diagram form.
• Use mathematical skills to interpret mechanical and metallurgical findings, financial information, and prepare budgets.

PHYSICAL DEMANDS:
The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. While performing the duties of this job, the employee is regularly required to stand; walk; use hands to handle or feel; reach with hands and arms; stoop, kneel, crouch, or crawl; and talk or hear. The employee must regularly lift and/or move up to 10 pounds and frequently lift and/or move up to 50 pounds. The employee must be able to see differences in widths and lengths of lines such as those on graphs. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

ENVIRONMENTAL CONDITIONS:
Inside: Protection from weather conditions but not necessarily from temperature changes. Much of the work will be done in a machine shop type environment with high noise levels, dust, and other hazards associated with machining work. A job is considered “inside” if the worker spends approximately 75 percent or more of the time inside.

WORK ENVIRONMENT:
The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job.

• Must be able to work effectively in a dynamic and fast-paced environment, communicate well with others, effectively deal with technicians and customers, and accept constructive criticism.
• Must be able to change activity frequently and cope with interruptions.

IMPORTANT NOTE: Essential functions of this job are described under the headings above. The job requirements and features are subject to change from time to time due to the dynamic nature of the Company.

It is the policy of VRC Metal Systems not to discriminate or allow the harassment of employees or applicants on the basis of sex, gender identity, sexual orientation, race, color, religious creed, national origin, physical or mental disability, protected veteran status, or any other characteristic protected by law with regard to any employment practices, including recruitment, advertising, job application procedures, hiring, upgrading, training, promotion, transfer, compensation, job assignments, benefits and/or other terms, conditions, or privileges of employment, provided the individual is qualified, with or without reasonable accommodations, to perform the essential functions of the job. This policy applies to all jobs at the Company. The Company will continue to take affirmative action to ensure that individuals are employed, and that employees are treated during employment, without regard to their sex, gender identity, sexual orientation, race, physical or mental disability, protected veteran status, or any other characteristic protected by law in all employment practices.

Employees and applicants with disabilities and disabled veterans are encouraged to inform Human Resources if they need a reasonable accommodation to perform a job for which they are otherwise qualified. The Company makes, and will continue to make, reasonable accommodations to the known physical or mental limitations of an otherwise qualified applicant or employee to promote the employment of qualified individuals with disabilities and disabled veterans, unless such accommodations would impose an undue hardship on the operations of the Company's business.

SALARY RANGE: $62,000 – $67,000

ADDITIVE MANUFACTURING (AM) PROCESS DEVELOPMENT ENGINEER
Date
Wire-DDED Technology Program Manager
Date