

**Title:** Product Developer (Mechatronics Engineer)

**Department:** Product Development

**Job Summary:**

MANTECH manufactures software-driven automated laboratory and process analytical equipment for water and soil analyses. The successful candidate will work with a multidisciplinary team to help maintain MANTECH's existing products, design custom solutions for customers, and develop new products. The product development team works closely with Lab and QC personnel to define requirements, perform testing, and implement solutions.

Core responsibilities include:

- Mechanical design of fixtures, mounts, racks, adapters, *etc.*
- Mechatronic design and prototyping of:
  - modifications/integrations of existing equipment, and
  - new designs for MANTECH's automated equipment (cartesian robots, buret drives, pumps, *etc.*)
- Liaise with manufacturers, contractors, and partners for outsourced designs, and integration of third part equipment.
- Develop, maintain, and deploy Windows desktop software used internally and by customers to control lab equipment and systems.

Additional duties could include:

- Supporting customers.
- Participating in installations (typically only on new/special projects).
- Diagnose, repair and troubleshoot equipment.
- Creating demos, concepts, technical specifications, budgets, proposals, and other materials to support sales teams.
- Ability to take on other technical tasks as required.
- Willingness to travel 5%-10%

**Required Qualifications:**

- Bachelor's or Master's Degree in Engineering (Mechanical/Mechatronics preferred)
- Professional Engineering Designation
- Minimum 4+ years experience
- Professional Engineering Licensure in the Province of Ontario
- 3D CAD Experience, ideally Solidworks and PDM Vault
- Experience developing desktop software with object-oriented languages (C# preferred, ideally using Visual Studio).
- Experience with version management (preferably git).
- Ability to create organized, well commented code and documentation.
- Ability to work independently on development and utilize the expertise of colleagues as needed.
- Excellent time management and communication skills.
- Driven self starter willing and able to become the expert when a new technology, system, *etc.* is developing and released.
- Ability to self manage multiple projects and cope with changing priorities and scopes.
- Ability to work safely in a lab environment with chemicals, automated equipment, and other personnel.

**Beneficial Experience:**

- PLC, CANbus, and other industrial communication integration.
- Experience interfacing with embedded systems/hardware (UART, I2C, IP Sockets, *etc.*).
- Experience with SQLite or SQL, deploying local databases.
- Experience with electrical troubleshooting and soldering.
- Experience with basic shop tools and prototyping.
- Knowledge of basic chemistry and/or lab equipment.
- Experience capturing data from analytical equipment (*e.g.* via DAQs)

MANTECH is committed to supporting a culture of diversity and accessibility across the organization. We hire the best talent regardless of race, color, creed, national origin, ancestry, disability, marital status, age, sex, veteran status or sexual orientation. If you require special accommodation to complete any portion of the application or interview process, please contact 1 (519) 835-7620