

Job Title: Manufacturing Engineer

Reports To: Director, Manufacturing

GENERAL DESCRIPTION

The Manufacturing Engineer is responsible for the design and development of electro-mechanical systems to be used in the production of the Paratus foundational point-of-care cartridge technology. The position involves the design and construction of test and assembly fixturing for a production line environment. The candidate should be an expert in SolidWorks, and 3D printing in order to facilitate the rapid development of fluidic, mechanical, and optical components. The position also requires a strong knowledge of injection molding processes, and the principles of design for manufacturing. A successful candidate will also have knowledge and experience with an ISO certified manufacturing environment. For the entry level applicant, the candidate must have a degree (BS) from a major university. The senior level candidate should have a minimum of five years of experience working in a production environment.

REQUIREMENTS

Education:

- BS in Engineering from a major University.

Skills and Experience Required:

- Strong proficiency with SolidWorks required.
- Experience working in a production environment.
- Strong background in fluid dynamics (especially microfluidics) highly desired.
- Experience using tools and equipment typically found in a metal shop.
- Experience with plastics (design, fabrication, 3D printing, injection molding) highly desired.
- Knowledge of the principles of design for manufacture (DFM) highly desired.
- Knowledge of Quality Management Systems principles and application.
- Knowledge of capillary flow dynamics highly desired.
- Experience with PLC industrial electrical systems (ADC DirectSoft and Click), Open and close loop motion, loop powered devices
- Skilled in working with pneumatic systems, manifold valve systems, cylinder tuning for low pressure air and high pressure medical grade gas systems
- Skilled or knowledgeable if machining processes such as milling, lathe, EDM and grinding
- Skilled in setting up conveyor lines, vibratory bowl sorters, automated positioning systems, dispensing and inline weighing systems
- Has basic fabrication skills, layout, cutting, assembling and mechanical alignment skills
- Knows how to perform Tag out, lockout
- Preferred to have flow wrap, unboxer, stuffer and stacking experience
- Preferred to have reel to reel experience

Essential Duties and Responsibilities

Responsibilities:

- Operation of a pilot production line.
- Creation of test and assembly fixturing.
- Design and fabrication of primarily plastic components and devices.
- Design of mechanical structures meant to house, deliver, distribute and otherwise manipulate fluid at sub-milliliter volumes.
- Testing and validation of aforementioned devices and components.
- Mechanical drafting.
- Contribute to the creation of innovative solutions.
- Assist with the maintenance, cleanliness and safety of the laboratory.
- Interface and work effectively with multiple interdisciplinary departments.

Working Conditions:

- Work is normally performed in a typical office or lab work environment.
- Possible exposure to mechanical, electrical, biologic and chemical hazards.
- Frequent use of personal computer, copiers, printers, and telephones.
- Frequent standing, walking, climbing stairs, sitting, listening, and talking.
- Frequent work under stress, as a team member, and in direct contact with others.
- Infrequent lifting of up to 25 lbs.