

Job Specification

Title: R&D & Test Engineer
Reports to: R&D Manager/Director
Date created: March 2023

About CardiacBooster:

CardiacBooster is a medical device company developing a new and innovative device to support the heart. Heart support devices are used by interventional cardiologists to stabilize patients in times of cardiogenic shock and acute heart failure. We are an enthusiastic team with diverse backgrounds and expertise, located in Galway, Ireland, and Nijmegen, Netherlands. CardiacBooster is an equal opportunity employer.

Job Description:

The R&D & Test Engineer plays a key role in developing a safe and effective device. Working from the requirements, you will have a critical eye on the physical behavior of CardiacBooster's medical device. Your output will be used as design input. Together with the rest of the team, you will share the responsibility of realizing the full potential of CardiacBooster's technology. The successful candidate will have entrepreneurial spirit, the required persistence to succeed in a start-up environment, and the ability to work in a self-directed manner with minimal direction and supervision. You should have hands-on knowledge and experience in the development and maintenance of test platforms for validation and verification.

Key Responsibilities

- Your key responsibility is to measure and quantify the physical characteristics of the device by experimental design. Your knowledge of solid and fluid mechanics, and other areas of physics should translate in hardware and software implementations of test platforms and their validation, including test protocols and data analysis tools.
- You will work closely with your counterparts responsible for designing and manufacturing the pVAD device
- Understand the physical and physiological drivers and boundary conditions of pVAD design and translate them into concrete research proposals.
- Develop test capabilities, processes and protocols to support the development, verification, and validation of the company's catheter device
- Develop and maintain the company's bench testing, technologies & competencies.
Good communication with peers and management in the continuous feedback loop between device design and validation testing

Skills, Qualifications & Experience

- The successful candidate will have a minimum of four years of medical device development experience, and have either a Master's or primary Degree in a relevant engineering/scientific discipline such as applied physics, mechanical engineering, biomedical engineering, or equivalent experience.
- Experience in qualification of medical / cardiovascular devices, with structural heart experience an advantage.
 - Experience with physical measurement equipment and sensors.
- Programming skills in Matlab + Matlab Simulink.
- Basic knowledge of the V-model approach to verification & validation testing is preferred.
- Use of statistical analysis techniques & DOE

- Experience with device reliability or fatigue testing techniques Experience with Solidworks 3D modelling software or equivalent

The above statements are intended to describe the general nature and level of work being performed by people assigned to this classification. They are not intended to be construed as an exhaustive list of all responsibilities, duties, and skills required of personnel so classified.