

CONTRACT

Product Development Engineer

Job Reference: PDE
Posted: April 2025

Location: Carlsbad, CA
Weekly Hours: 40 – 6 month contract

The Role

The Product Development Engineer I is responsible for the design and development of the cartridge, conducting experiments and interpreting results to meet design requirements.

Responsibilities:

It is expected that the Product Development Engineer I will perform the following tasks with mentorship from senior engineers:

- Define subsystem technical requirements, including translating from business and user requirements.
- Contribute to risk management activities including but not limited to dFMEAs per ISO 13485.
- Evaluate design functionality through hand calculations, prototyping, and/or simulation.
- Create simple SolidWorks CAD designs of parts of the cartridge and instrument, and simple drawings.
- Develop prototype fabrication/assembly methods and fabricate/assemble parts. This includes design and manufacture of simple assembly aids/fixtures.
- Develop & Execute test plans, test protocols, scripts, data analysis, interpret results and generate reports that test the design fluidically on a representative test rig.
- Troubleshoot and debug fluidic, mechanical and control system problems with an understanding of assay workflow.
- Perform root cause analysis as needed for issues directed by senior engineer.
- Prepare, review, and deliver quality technical reports and presentations for weekly data reviews and periodic design reviews.
- Support transfer of design to manufacturing by creating sufficient documentation (i.e. BOMs, assembly WIs, QC test methods, etc.)
- Contribute to project planning and resourcing with guidance from project lead.
- Work in a highly cross-functional team with engineers, scientists, software, manufacturing, marketing, quality etc. (both in UK & US)
- Work with 3rd party development partners and suppliers as required to achieve technical solutions.
- Actively contributes to completion of critical engineering team development program milestones.
- Other duties as assigned.



Person Specification

We are looking for people with a passion for their work - people who strive for exceptional results, but who can deliver pragmatic solutions on time. DNA Electronics' scientists and engineers enjoy and thrive on working in an interdisciplinary team but can also work independently and use their own initiative. The ideal candidate also likes to contribute to solving problems outside their field of immediate expertise and is an effective communicator.

Qualifications & Experience:

- Bachelor's degree in Biomedical Engineering or Mechanical Engineering or a closely related discipline with 1-3 years of experience.
- Experience with using CAD tools to design or analyze parts (i.e. SolidWorks)
- Troubleshooting experience with ability to determine root cause methodically and implement a solution.
- Experience writing and executing test plans, protocols, and reports.
- Basic Software coding/scripting experience or ability to learn quickly (i.e. Python)
- Basic Experience with data analysis tools (including statistical analyses and DOE, i.e. JMP)
- Demonstratable organizational, task planning, and time management skills as part of a project.
- Outstanding verbal, written, and documentation skills are required.
- Excellent collaboration and interpersonal skills to work well with scientists and engineers having widely divergent backgrounds (i.e. able to clearly communicate technical knowledge).
- (strongly preferred) Experience developing within medical device (or similar regulated industry) development processes including defining requirements, generating concepts/models, design reviews, risk management, prototyping, testing, and transfer to manufacture.
- (strongly preferred) Experience with simple test rig design.
- (strongly preferred) Experience with machine shop tools (e.g. 3D printer, CNC, lathe, laser cutter, mill, etc.)
- (preferred) Practical experience designing for a range of prototype manufacturing and assembly processes.
- (preferred) Experience working with integrated fluidic microsystems and associated instrumentation.
- (preferred) Ability to understand biochemistry assay workflow.

Location

DNA Electronics Inc., Carlsbad, CA

Apply


If you believe you meet the above criteria and would relish playing a key role in developing a revolutionary technology, we would be delighted to hear from you.

We offer a competitive compensation package to successful candidates.

Please email your CV and cover letter to: HR-US@dnae.com quoting

Your name and the job title in the subject line.

For more information about DNAe, please visit our website www.dnae.com



DNAe is committed to offering staff a competitive remuneration package, alongside compelling benefits. As the primary part of the process, we conduct a rigorous market data review where each role is individually benchmarked using a vast amount of recent data. The estimated base salary range for the Product Development Engineer role based in Carlsbad, California is: \$94,000 to \$104,600. Compensation decisions are dependent on several factors including, but not limited to, an individual's qualifications, location where the role is to be performed, internal equity, and alignment with market data. Should the level or location of the role change during the hiring process, the applicable salary range may be updated accordingly.

DNAe, Inc. is an equal opportunity employer that does not discriminate on the basis of race, color, national origin, ancestry, religion, sex, gender, age, marital status, physical or mental disability, military or veteran status, sexual orientation, gender identity, gender expression, genetic information, or any other characteristic protected by applicable federal, state or local law.
