

Staff Mechanical Engineer

Job Reference: SME
Posted: March 2025

Location: Carlsbad, CA
Weekly Hours: 40

The Role

The Staff Mechanical Engineer is responsible for mechanical design and development of significant portions of our diagnostic consumable, as well as aspects of the instrument, test rigs and other associated projects within DNAe.

Responsibilities:

It is expected that the Staff Mechanical Engineer will perform the following tasks with minimal supervision:

- **Mechanical Design:** Defining requirements, generating concepts, creating detailed CAD designs & engineering drawings, performing calculations/analysis to assess performance, contributing to risk management activities (e.g. dFMEA) and preparing content for design reviews.
- **Creating Design Files & Documents:** This includes engineering drawings, materials specifications, assembly work instructions, test protocols.
- **Prototyping & Testing:** Prototyping, test rig & protocol design, testing, debugging/root cause analysis, documenting & presenting test results.
- **Transfer to Manufacture:** Create manufacturing documentation (e.g. assembly work instructions, QC test protocols) and work with external suppliers and contract manufacturers to transfer the design to manufacture.
- **Technical leadership & mentoring:** Guide other engineers in carrying out development activities and review their work. Proactively identify technical/development risks (both on an individual design & strategic level) and offer solutions. Escalate decisions where necessary, providing recommendations.
- **Development planning & reporting:** Create and manage realistic development plans. This includes defining scope, deliverables, strategies, timelines, resources and budgets.
- **Work closely with other engineering disciplines and teams** (both in the UK & US), in particular the science, software and commercial teams to ensure compatibility of designs/deliverables between projects in line with company objectives.
- **Set high standards of technical delivery.** Implement ways of working to help the team develop quickly and efficiently, while maintaining quality.
- **Promote a positive, collaborative team environment**
- **Other duties as assigned** (e.g. recruitment, transfer to CMO)



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 & Technical Skills:

In order to fulfil this profile, candidates will typically need a higher degree in Mechanical Engineering or Design Engineering with 5+ years' experience, with a minimum of 3 years designing complex injection moulded products.

- Experience in end-to end product development. This includes defining requirements, generating concepts, creating detailed CAD designs, design reviews, risk management, prototyping, testing & test rig design, and transfer to manufacture.
- Significant experience (comfortable working without guidance, and guiding/reviewing others' work) in the following areas:
 - o CAD (preferably Solidworks)
 - o Design for injection molding and other manufacturing/assembly techniques
 - o GD&T drawings and tolerance analysis
 - o Basic hand calculations and (ideally) FEA to analyze design fluidic, thermal and mechanical performance
 - o Selecting & designing for rapid prototyping techniques
 - o Developing simple test methods and equipment
 - o Root cause analysis & resolving complex technical problems across disciplines.
- Experience developing fluidic systems
- Able to present & discuss technical subjects with non-technical stakeholders at a level of detail appropriate to them.
- Experience mentoring more junior engineers
- Experience leading projects that may have a 6+ month horizon and moderate uncertainty/risks/issues/interdependencies
- (Strongly preferred) Experience developing within medical device development processes (ISO 13485)
- (Preferred) Experience developing diagnostic devices
- (Preferred) Experience managing external development partners

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 Staff Mechanical Engineer role based in Carlsbad, California is: \$161,500 to \$175,000. 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.

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