

**Principal Mechanical Engineer (Instrument Design)**

**White City, London**

**The Role**

An opportunity has arisen in our White City office for a highly skilled Principal Mechanical Engineer, specialising in Instrument Design.

The Principal Mechanical Design Engineer is responsible for leading aspects of mechanical design and development of our diagnostic platform and associated projects within DNAe.

# **Responsibilities:**

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

**Leading technical development:** Create, review, & guide others to develop requirements, designs, documentation, prototypes, test strategies, and analysis/test reports. Proactively identify technical/development risks and offer solutions. Provide clarity and decisiveness to the team, given limited information, while escalating decisions where necessary.

**Development planning & reporting:** Create and manage realistic project plans that may have a 6+ month horizon, and significant uncertainty/risks/issues. This includes defining scope, deliverables, strategies, timelines, resources and budgets. Also guide others to plan & manage less complex projects.

**Managing external partners:** Where applicable, recommend & work with external development partners to define scope/deliverables, track progress and budget, and ensure their output meets DNAe’s needs.

**Other duties may include:**

* Work closely with other engineering disciplines and teams (both in 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.
* Mentor and line manage less experienced members of the team, and promote a positive, collaborative team environment

# Qualifications & Experience:

It is expected that the successful candidate for this role is comfortable leading others, reviewing work, and thinking on a strategic/system level.

They can draw on their experience developing similar systems to identify potential risks and solutions in the designs. They can question the brief and offer solutions to the 'job to be done' rather than addressing only the original ask.

They may be starting to think outside of individual projects towards business process improvements and line managing/career coaching others.

**Technical Skills & Leadership:**

* Significant experience in end-to-end development of **complex electromechanical** **systems** (includingmechanism design, pneumatics, fluid control & temperature control). This includes generating architecture & mechanism concepts; creating detailed CAD designs that address requirements and consider the needs of all stakeholders; design reviews; risk management; prototyping; testing & test rig design; and transfer to manufacture.
* Proficient with computer aided design (preferably Solidworks).
* Proficient with root cause analysis & resolving complex technical problems across disciplines.
* Able to recommend suitable rapid prototyping techniques, suppliers, and test methods to match the design & development goals.
* (Preferred) Proficiency with FEA software (preferably Comsol) and hand calculations to analyze design performance.
* Experience guiding more junior team members in the above, and as a reviewer.

**Non-Technical Skills**:

* Experience developing within medical device development processes (ISO 13485); can guide others on good practice, identify gaps and suggest improvements
* Able to discuss technical subjects with non-technical stakeholders at a level of detail appropriate to them.
* (Preferred) Awareness of user, business, regulatory needs associated with sample-to-result diagnostic systems
* (Preferred) Basic understanding of assay development methodologies towards medical device designs
* (Preferred) Experience overseeing third party work and deliverables

**Hours**

This role is 37.5 hours a week.

The successful candidate may be required at times to have the flexibility to adjust their working hours outside of standard UK office hours to collaborate with the US team

**Workplace**

This role is based at our offices at Scale Space, White City.

**Apply**

To apply please email [careers@dnae.com](mailto:careers@dnae.com) with your CV and salary expectations. Please include any other information you would like us to consider.

*We are not offering visa sponsorship on this role at this time, candidates should have the right to work in the UK.*