

Position:

Design Engineer

About i4PD:

i4PD is an employee-owned product design and development consultancy with a 20-year track record of delivering cutting edge design solutions for its clients. The company employs a diverse team of designers and engineers who operate out of i4PD's bright and spacious studio on the south side of Edinburgh. The team work collaboratively with clients to deliver exceptional product design solutions.

Role:

As a Design Engineer, you will be responsible for the design and development of customer projects across a wide range of industries. As part of your role, you will liaise directly with clients and suppliers to ensure all requirements are achieved or exceeded. Your role will include research, concept generation, CAD modelling, prototyping, verification testing and presenting your work to colleagues and clients at regular review meetings. You will be working as part of a larger team of experienced designers and engineers, receiving on-the-job training and ongoing personal development.

Reporting:

Your line manager will be the i4PD Mechanical Design Lead

Key Areas of Responsibility:

Concept Generation and Development

Building on the client brief and design requirements documentation, you will generate a range of concept solutions for review. Following feedback from both clients and colleagues, you will develop these concepts to achieve a shared concept vision with the project team. Sketching, illustrating and simplified CAD models/prototypes can all be used during concept design and development work to help better understand any potential issues.

CAD Models, Assemblies and Drawings

You will use Solidworks to build and develop mechanical designs in CAD. You will use best practise techniques to structure the design tree effectively and ensure your models are stable and easy to edit. You will create complex, dynamic assemblies of parts to enable virtual assessment of your design. When the CAD model is approved, you will create a design pack, including BoMs and 2D control drawings, for transfer to manufacture.

Prototyping and Testing

Prototyping, testing and iteratively improving the design is an important part of the product development process. The level of prototype will depend on the stage of development and proper consideration must be given to what elements of the design are currently being evaluated. You will be responsible for all aspects of prototype development including specification, design, procurement of parts, fabrication, assembly, fettling and testing.

Design Documentation and Reporting

Maintaining accurate and up-to-date technical documentation is crucial for documenting product requirements, design and prototype revisions, test results and other important project data. Proper documentation ensures that designs can be well understood and easily replicated. i4PD has a rigorous Quality Management System (QMS) that supports all projects, and you will be trained to become competent in meeting the required documentation standards. You will also be required to produce reports and presentation materials that clearly communicate progress and design options to both internal and external stakeholders.

Technical Research

You will often be required to conduct self-directed research to source appropriate component parts, assemblies and tools for prototypes and production designs. Before beginning research, you should have a clear understanding of the requirements. Desk based research can provide many answers, however this is often just the start of the process, and you should be confident in discussing specifications, alternative solutions, costs and lead-times directly with suppliers via phone and email.

Professional Approach

You are expected to conduct all business-related activities in a professional manner. As a representative of i4PD, this responsibility is of particular importance when liaising directing with external stakeholders however it also extends to your behaviours and communications with colleagues. As a Design Engineer, your work will regularly be reviewed and critiqued. This feedback provides an ongoing opportunity for learning and development.

You are expected to be an active and collaborative team member who proactively seeks out solutions to problems and provides support to others. You should also be comfortable in seeking out support when required, and this is particularly important where quality or safety is concerned. In order to avoid any wasted effort, you should have a clear understanding of all design specifications and project deliverables.

Flexible working is offered as a benefit to all staff. Any changes to regular working patterns should be agreed in advance with your line manager. Project meetings should be held within core hours whenever possible. You will maintain regular contact with your project team to understand any changes to project requirements or delivery schedules. Good teamwork is an essential component to achieving great results for our clients.

Essential Knowledge and Skills

- 2:1 Bachelor (Hons) or master's degree in mechanical engineering or a related field;
- Experience in SolidWorks (or equivalent) CAD software to create 3D models and designs.
- Good awareness of design for manufacture techniques.
- Strong understanding of core mechanical engineering principles
- Experience/knowledge of various prototyping techniques
- Highly proficient in MS Excel, PowerPoint and Word

Personal Attributes

- Excellent communications skills
- Capable of generating multiple concept solutions
- Ability to present ideas clearly and confidently
- Tenacious attitude to solving problems
- Capable of prioritising tasks and managing own workload
- Ability to learn quickly

Desirable Experience and Skills

- 1-3 years professional experience
- Experience working on client projects
- Ability to quickly and effectively sketch out ideas by hand
- Experience of working within QMS framework
- Experience of running FEA studies
- Experience of medical device development

Package

This is a superb opportunity to join a forward thinking and successful employee-owned SME business. In return you can expect a highly competitive salary & company workplace pension within a challenging and supportive culture and the opportunity to grow your career.

- Industry competitive salary.
- Enhanced 10-week full Maternity Pay / 4 week full Paternity Pay.
- Full time employees receive 30 days holiday (including public holidays which can be taken at any time).
- Enhanced holiday entitlement (up to 40 days) dependant on years of service.
- Holiday purchase scheme (you can “buy” up to 10 additional days holiday).
- Hybrid working - office based for minimum 3 days/week
- 7.5hr days with flexibility in working hours.
- Tax free bonus (up to £3,600 for those that have served a minimum of 12 months continuous service)
- Cycle 2 Work and Electric Vehicle Scheme.

How to Apply

Email jobs@i4pd.co.uk quoting job reference ‘**DE0224**’.

You must include the following:

- Your CV.
- A covering letter describing what you would bring to the team
- A portfolio that provides highlights of any design engineering and development projects