

Graduate Design and Analysis Engineer

About us!

Frewer Engineering is an agile Small to Medium-sized Enterprise (SME) consultancy focusing on mechanical design and analysis. We work in a broad range of industries including aeronautical, space, automotive, renewables, defence and marine. Our work typically includes a combination of detailed **3D CAD design, Finite Element Analysis (FEA)** and **Computational Fluid Dynamics (CFD)**, supported by hand calculations and analytical methods.

Our mission is to provide **innovative, creative, and sustainable solutions** to complex engineering problems. To help achieve this, we're looking for people that can bring **diverse perspectives and ideas** which foster an inclusive environment for innovation.

Team fit and company culture are paramount in the recruitment process at Frewer Engineering. We are a **dynamic, high-talent, special projects team. Authentic enthusiasm** for engineering is counted as highly as **academic achievement**. An appetite to learn on the job to continually develop new skills and enhance existing ones is vital and will be supported by the company.

Frewer Engineering prides itself in offering an agile work environment, tailored to developing engineers from graduate level, through chartered and beyond. Good ideas are always listened to by people who can help realise them, with graduates given **responsibility and ownership** of key tasks and projects. The variety in size and complexity of our work provides opportunities to gain experience leading smaller projects, as well as making a name for yourself within large programmes of national significance.



Agile

Swift, accurate & cost-effective response



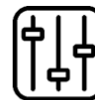
Sustainable

Contributing to a low-carbon, circular economy



Secure

Respectful of client & project confidentiality



Customised

The right solution for customers' individual needs



Cutting-Edge

Investing in new tools, technology & staff development

Job description

- **Versatile Engineering Exposure:** Contribute to a diverse range of customer projects, engaging in mechanical design tasks and engineering across our various specialties and industries.
- **End-to-End Design Proficiency:** Actively participating in the complete lifecycle of mechanical components from initial concept development to detailed design and drawings.
- **Structural Analysis Skills Development:** Conduct structural analyses on components and assemblies, exploring linear, non-linear, and thermal scenarios to ensure robust and resilient designs.
- **Fluid Dynamics Skills Development:** Apply Computational Fluid Dynamics (CFD) analysis in both 2D and 3D domains, optimising fluid flow and thermal management in complex systems.
- **Analytical Precision:** Employ hand calculations and support analytical models for initial concept analysis and model validation, contributing to the reliability of engineering solutions.
- **Project Leadership:** Early development of project management skills by engaging in commercial project tasks such as proposal writing, project planning, and cost calculation.
- **Effective Communication Skills:** Sharpen communication abilities by presenting technical information to internal staff and external customers, both in-person and virtually.
- **Holistic Professional Development:** Experience a dynamic work environment propelling your growth as a mechanical / aerospace engineer, offering opportunities to contribute to various project aspects and acquire a well-rounded skill set for a successful career launch.

Job requirements

Minimum

- 2:1 or 1st Class Bachelors Degree in Mechanical, Aerospace Engineering or equivalent.
- Good understanding of 3D CAD design.
- Good understanding of stress analysis and material science.
- Good understanding of fluid dynamics.
- Good understanding of engineering drawings.
- Good communication skills, comfortable presenting in-person and virtually.
- Creative and innovative mindset, with a drive to continually develop new skills.
- Ability to communicate well in both spoken and written English.
- Full driving license valid in the UK.

Desired

- Professional experience in the form of summer or annual placements.
- Experience in designing, analysing and / or manufacturing composite materials.
- Experience in conducting thermal analysis.
- Experience in analytical scripting, software and web development / coding using Python, VBA, C/C++, Javascript, HTML.

Benefits

Frewer Engineering offer a range of benefits to our employees including:

- £30,000+ based on experience (reviewed annually as engineers work towards KPIs & Chartership).
- Bonus scheme typically paid twice annually based on company performance & forecasts.
- Comprehensive Private Healthcare via Bupa (including mental health support and dental cover).
- Chartership mentoring, professional development training and support.
- Competitive company pension scheme.
- Cycle to work Scheme.
- Regular social events with the team!

Location & Hybrid Working

Our hybrid working model combines remote work and office-based work, allowing individuals to work both from the company's premises and from remote locations. We work with an average of 3 days office attendance per week... Why?

- To promote flexibility and work-life balance.
- Maintain a predominantly face-to-face coaching culture within the business.
- Maintain a collaborative and productive work environment.
- Safeguard the well-being and safety of employees.

We are based near Ockley, Surrey. The office location is remote and as such, it is essential that all graduates have a full driving license valid in the UK prior to commencement.

Equal Opportunities

Frewer Engineering is an equal opportunities employer. We highly value diversity and inclusion and welcome applications from candidates from all backgrounds. Please note we will not use any personal information relating to your background at any stage of the application process.

How to apply!

Email your CV, cover letter and portfolio (desired but not essential) to info@frewer-engineering.com.