

# Mechanical Design Engineer

## Job Ref 90

### Job Description

We are looking for a Mechanical Design Engineer to join our growing Design Team. You will be responsible for the mechanical design of assemblies related to experimental campaigns on our electromagnetic launchers and light gas guns.

As an engineer in First Light Fusion, you will be designing and building state of the art technology to help push the company towards achieving fusion for energy generation.

Projects will range from complex target design and development to upgrading our existing pulsed power machines to improve their performance.

We believe this is an exciting and varied role as you will operate in a broad range of core projects in a fast-paced environment.

#### Responsibilities will include:

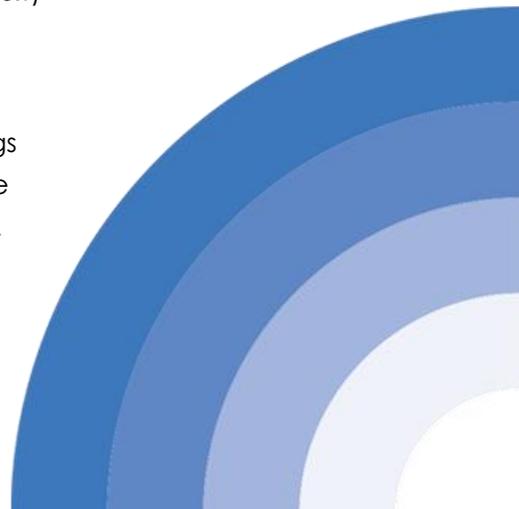
- Using 3D CAD to produce engineering drawings for manufacture
- Supporting the design process with technical specifications, design reviews and change management
- Providing expert engineering input into multidisciplinary teams
- Ensuring manufactured components are delivered on time and as specified

#### Essential

- You will have an HNC, HND or degree (BEng) in mechanical engineering
- Engineering design background with experience using a mainstream CAD system. Training on the system used by us (Solidworks) can be provided
- Fast and effective problem-solving skills
- Ability to work under pressure to tight deadlines
- Strong communication and interpersonal skills
- Focus on safety and environmental impacts of your designs
- Experience of Geometric Dimensioning and Tolerancing (GD&T)

#### Desirable

- Ability to generate complex 3D CAD assemblies and drawings
- Experience of designing in a research environment with some of the following technologies: vacuum systems, laser systems,



pressure vessels, high voltage, laser systems, cryogenics, lifting equipment

- Knowledge of precision manufacturing techniques
- Ability to perform engineering calculations and analysis

## Benefits

- Very competitive salary
- 25 days annual leave (increasing to 28 with time in service) + bank holidays
- 8% employer pension contribution without matching requirements
- Relocation support
- Flexible working
- Generous share options scheme
- Free lunch and soft drinks
- Enhanced maternal / paternal leave
- Enhanced sick leave

## Additional information

### [How to apply](#)

Please send your application and CV to [careers@firstlightfusion.com](mailto:careers@firstlightfusion.com) quoting the job title in the subject. If you don't hear back from us within four weeks, it means that unfortunately your application was unsuccessful at this time.

Informal enquiries may also be addressed to [careers@firstlightfusion.com](mailto:careers@firstlightfusion.com).

### [The interview process](#)

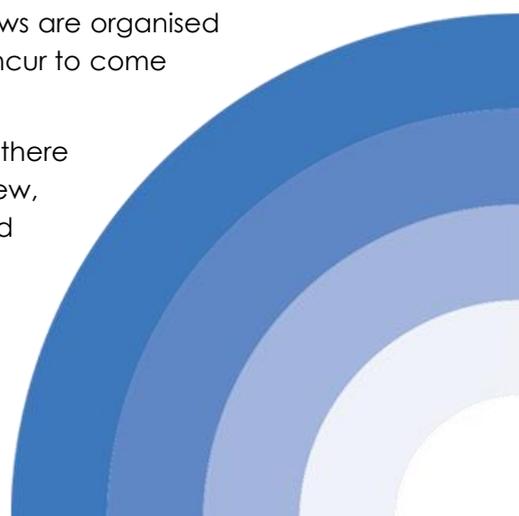
We typically carry out two separate interviews, each one about sixty to ninety minutes long. The first one aims to understand how your skills match what is required for the job and the discussion will be focused on your areas of expertise. If successful, you will be invited to the second interview, which is more focused on your personal skills, and how your objectives align with the company mission and values. We try to understand the value you will add to First Light, and how you can thrive and be happy with us. There will be opportunity to ask us as many questions as you like.

If you are invited to the second interview, it's probably time to warm up two of your referees, as we may ask you to put us in touch with them. If you are the successful candidate, we will send you an offer letter and, once agreed, a contract.

If you are invited to an interview, we will certainly get back to you to let you know the outcome.

To help with logistics issues, we can arrange so that the two interviews are organised on the same day. We will also reimburse reasonable expenses you incur to come to talk to us.

We don't have a dress code at First Light and regardless of seniority there is a good mix of t-shirts, trainers, shirts and blazers. For your interview, please dress in whatever makes you feel most confident and comfortable.



## [Our commitment to equality, diversity and inclusion](#)

We are a small company with a huge mission. The only important aspect for the team, and for each individual, is the contribution they can make. Our selection process and requirements for career progression disregard gender, gender identity, race, disability, colour, religion, and all other aspects of diversity that make us all humans. Diverse teams have been proven to be better and we strongly believe it. We're not perfect but we strive to be.

## [Information for recruiters](#)

We work with a trusted network of recruiters, therefore CVs sent by other recruitment agencies will not be considered. In the event that the company receives a CV from both the direct applicant and a recruitment agency, the CV will be treated as a direct application by the individual only. Unsolicited contact from recruitment agencies will be disregarded.

## **First Light Fusion**

We are a lean, focused and agile company researching energy generation by inertial confinement fusion. We spun out from the University of Oxford in June 2011 and are based near Oxford. First Light continues to work closely with the academic community, both in the UK and internationally. The company is well-funded by both institutional investors and private individuals.

Inertial confinement fusion for energy generation is a well-established research field and is being pursued in many laboratories worldwide, perhaps most notably in the US at the National Ignition Facility. We are exploring a number of alternative research directions that harness the same fundamental physics, with the prime focus being power generation. Our work to-date has included theoretical analysis, detailed numerical simulation, and experimental validation. We have an increasingly clear vision of the pathway to a power plant.

We really believe fusion will be solved in the 2020s. If it's solved by us, fantastic, if it's solved by someone else, still great.

