Optical Diagnostics Technician
Job Ref 63

Job Description

First Light Fusion is an inertial fusion research company located in Oxford. We use a variety of optical diagnostics to monitor target and launcher performance. These include measurements of the energy of light emitted by our targets, ultra-high speed imaging of our targets, projectile velocity measurements using reflected laser light and also measurement of the electrical current in our high voltage launcher using a fibre laser based polarisation rotation technique.

This growing suite of diagnostics has now been centralised and can be run on any of our 3 pulsed power facilities or 2 stage light gas guns. You will be expected to run, maintain and develop these capabilities.

The day to day work will involve aligning and calibrating the diagnostics for shots. Further, a process of continuous development and improvement will be required to keep up with the increasing demand for higher accuracy results and new capabilities. All stages need to be recorded and documented.

We believe this is an exciting and varied role as you will interact with all the experiments taking place at First Light using a broad range of advanced diagnostics in a fast paced environment. While being a specialist, you will also interact with other teams to understand future requirements.

Essential

- Experience with optical alignment and experiments in a scientific setting such as a national laboratory, university, industrial research or equivalent.
- Theoretical knowledge of optics.
- Practical experience working with optics.
- Experience with a variety of optical diagnostics and laser safety procedures.
- Fast and effective problem-solving skills.
- Ability to work under pressure to tight deadlines while maintaining high quality output.
- Strong communication and interpersonal skills.
- Demonstrable ability to keep good records, documentation and a high overall level of organisation

Desirable

- Experience in computer aided optical design tools such as Zeemax. You will be able to select your own tool of choice and will be trained as required
- Experience with the fast sub-microsecond timescales and sub millimetre spatial scales typically found in our high energy density experiments.
- Experience with high power lasers (CW and Pulsed). You will be trained on the laser systems we use.
- Experience with fibre optic systems

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 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.

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.