

Mechanical Design Engineer (Optical Specialism)

The background of the slide is a dark grey color. A large, thick, teal-colored swoosh or brushstroke starts from the top right and curves downwards and to the left, ending near the bottom left corner. The text is positioned in the upper left area, within the dark grey space.

Mechanical Design Engineer (Optical Specialism)

Competitive salary and benefits package on offer, within an employee-owned organisation.
Closing date Monday 23rd of January 2023

The ABER Instruments R&D team is looking to grow with the addition of an enthusiastic, adaptable and self-motivated new member. The role is based on-site in Aberystwyth, we're an employee owned company with 30 years' experience making monitoring instrumentation for the brewing and biotech markets - our website has further information about our employee owned ethos, history and products.

In joining us at this exciting time in our development, you will receive a generous benefits package including a competitive salary, a twice yearly profit share, a holiday entitlement of 20 days, increasing to 26 days with service, plus Christmas closure leave. Flexible working and a generous pension. Following probation, colleagues are gifted 1000 shares, receive income protection, life insurance and can join the cycle to work scheme.

The company is an established, global market leader constantly working to innovate and expand our product portfolio, with bases in the U.K and the U.S. We count many of the world's leading biotech and brewing companies as customers; attention to detail and quality is essential.

Main purpose

As the company is growing, our product portfolio is expanding and our aim is to build a diverse R&D team to deliver improvements and new developments in a timely manner. You will be responsible for the design of all the mechanical parts for a new range of optical measurement systems, including supporting existing products.

Responsible for the sourcing of suppliers and working with our subcontractors to get the parts manufactured to specification and delivered on time. Working as part of the optical team, you will need to communicate your designs clearly to internal stakeholders, suppliers and subcontractors to ensure ABER received the required parts. You will also need to work with our Process Engineering department to make sure that the products are easy to assemble and be involved in the process of handing over the designs to Process Engineering and Manufacturing.

Duties to include

- Use SolidWorks to design new products to user requirements and functional specifications, including 3d cad and 2d drawings.
- Use SolidWorks to support our existing product range.
- Work with various departments to take products from concept designs through to final designs for Manufacturing handover.
- Design and make opto-mechanical assemblies, combining opto-electronics with optics in a suitable enclosure while managing interconnections and meeting target IP ratings.

- Support the testing and validation of the products from a mechanical perspective.
- Design jigs for assembling and calibrating the probe.
- Use various prototyping techniques to type test new designs.
- Identify and work with appropriate materials and suppliers.
- Write technical documentation including design specifications, sub-assembly to final product assembly procedures, test procedures/results, Manufacturing build files, and user manuals.
- Works within an ISO9001 and ISO13485 environment.
- Design products with compliance in mind from the outset, particularly for medical device compliance, LVD and EMC.
- Support Technical Support and Sales departments with technical issues when required.

Knowledge, skills and experience required

- Have a good knowledge of manufacturing processes and be willing to learn about new materials and processes.
- Have good knowledge and understanding of opto-electronic and optical components, their correct mounting, and alignment (e.g. Laser/LED, photodiodes, lens, diffraction grating, polariser).
- Have the ability to work across a number of varied sectors and projects
- An innovator who can turn ideas into practical design solutions with the ability to express these ideas clearly and precisely.
- Be a good communicator, working collaboratively with other departments of the company.
- Demonstrate drive and enthusiasm for your work and enjoy working in a team and independently as needed.
- Be familiar with enclosure design to minimise RF emissions.

Desirable knowledge, skills and experience:

- Knowledge of optical components (e.g. Laser/LED, photodiodes, lens, diffraction grating, polariser) would be advantageous.

To apply, please send your CV and covering letter detailing your skills and experience to hr@aberinstruments.com

Closing date Monday 23rd of January 2023

To apply please send a CV and Cover Letter by email to: hr@aberinstruments.com

Aber employee benefits at a glance

As part of Aber's commitment to making the company a great place to work and to reward our employees for their contribution and hard work, we offer the following benefits.

1000 gifted shares on completion of probation period



ABER profit share



Flexible working



Peace of mind if you die in service
(4x salary for your family)



Income protection scheme
(75% of salary)



Opportunity to buy further
ABER shares



20 days increasing to 26 days (UK based) holiday plus bank holidays with additional shutdown between Christmas and New Year



Opportunity to influence how the company grows and operates through an employee council.



ABER contributes 8% towards your pension scheme, while you contribute just 3%



Cycle to Work scheme

