Job Title: Materials and Sensor Development Intern

Location: Higher Bockhampton, Dorchester

Duration: Part-time or Full-time, Temporary

Salary: NMW

Overview

Precision Acoustics is a globally recognised manufacturer of ultrasonic hydrophones, transducers, test systems and acoustic materials. We are offering an exciting internship opportunity to join our Sensors & Materials Department for a one-year industrial placement.

Department background

The Sensors team specialises in the design, development and manufacture of ultrasonic transducers. These may be used for industrial applications, such as non-destructive testing (NDT), medical research or a variety of cutting-edge applications within academia. Designs are underpinned by a knowledge of the physical principles of acoustics along with an understanding of mechanical engineering.

The Materials team is primarily focused on the development of passive acoustic materials, working closely with the Sensors team to improve the performance of ultrasonic transducers and provide solutions for new designs, whilst also supporting and developing lines of commercial materials. The work in this department draws on an understanding of chemistry, materials science, and the crossover from these areas to acoustic applications.

Working within this department will involve significant hands-on, practical work within our in-house workshop and manufacturing facilities for which full training will be given and all necessary personal protection equipment (PPE) provided. No prior knowledge of ultrasonics is required.

What will I be doing?

Throughout the placement, you will support the Sensors and Materials teams in their day-to-day tasks, including the formulation and development of new materials, and the design and manufacture of custom sensors. Alongside this, you will be given at least one significant project on which you will be expected to take the lead with oversight from the Sensors and Materials Manager and support from the other engineers in the team (as required).

Required skills and experience

- Currently enrolled in a relevant STEM field of study, such as materials science/engineering, physics, engineering, or chemistry.
- Strong attention to detail and a willingness to learn.
- An experiment-orientated, problem-solving mindset.
- Excellent organisational skills.

- Ability to independently drive small-medium sized projects as a member of a supportive engineering team.
- Ability to maintain accurate records and to meet deadlines.

Desirable

- A keen interest in materials science and engineering.
- Experience with CAD, particularly Fusion 360.

Potential projects

- Development of new in-house materials testing procedures, drawing on ISO/ASTM standards.
- Development of existing materials formulations and processes.
- Custom sensor design and manufacture (ultrasonic).
- Projects supporting a LEAN manufacturing methodology.

Where will I be working?

This role is based at our Higher Bockhampton headquarters near Dorchester in Dorset. As Precision Acoustics is based in a semi-rural location, applicants may want to explore accommodation options in nearby towns like Dorchester, which is approximately a 10-20 minute commute away. Additionally, you may consider locations such as Weymouth (20-30 minute commute), Poole (40-50 minutes), and Bournemouth (45-60 minutes), which offer a variety of housing options to suit your preferences. It is essential that applicants consider logistic practicalities such as transportation during their application process.