



# Job Profile

**Job Title: Hydrogen Embrittlement and Certification Support –Technical Internship**

**Location: Cambridge**

**Business Unit: Marshall Futureworx**

**Department: N/A**

**Reports to (Job Title): Head of Engineering**

**Job family, track and Level: Engineering and Technical, Specialist, L2**

**Date Created: 22/11/23**

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## Purpose of the position

We are seeking a highly motivated and talented Technical Intern to join our dynamic engineering team. This internship provides a valuable opportunity to gain hands-on experience in and contribute to real-world engineering projects.

Join Marshall Futureworx for a dynamic internship and be at the forefront of liquid hydrogen refuelling research. Dive into the realm of hydrogen embrittlement and its impact on civil certification. Contribute to the development of acceptable means of compliance and test approaches in the aerospace industry. This placement is part of an industrial-led research program working towards a fully integrated liquid hydrogen aircraft fuel system suitable for ground demonstration. Bridge the gap between materials science and aviation safety, paving the way for the certification of innovative hydrogen-based technologies.

## Responsibilities:

- Collaborate with the technical team to support hydrogen embrittlement and its impact on civil certification
- Assist in research and development of fully integrated liquid hydrogen aircraft fuel system suitable for ground demonstration
- Assist in the liquid hydrogen refuelling research
- Conduct analysis and calculations to support designs and evaluations.
- Document and communicate findings, progress, and results to the project team.
- Keep up-to-date with industry trends, technologies, and best practices relevant to the assigned project.
- Participate in team meetings and contribute ideas and suggestions to improve project outcomes.
- Follow established safety protocols and maintain a clean and organized work environment.
- Support continuous improvement activities as part a “perpetual beta” philosophy



- Support examination and root cause analysis and identify and implement improvements based on the output of that analysis
- Develop subject matter expertise through ongoing research, application of skills, mentoring of other team members and participation in relevant specialist groups

## Capability

### Behavioural Competencies:

- Curiosity, learning and open mindedness
- Entrepreneurship
- Strategic thinking
- Agile thinking
- Teamwork and collaboration
- Energy, enthusiasm and excellent work ethic
- Pro-activity and self-motivation
- A global mindset, comfortable in diverse cultures and environments
- Comfortable with uncertainty and able to embrace change
- Environmental and social responsibility
- Health and safety conscious

### Technical Competencies:

- Solid understanding of material science principles and concepts.
- Strong analytical and problem-solving skills.
- Ability to discuss and develop concepts using scientific and material skills
- Written and verbal communication skills including presentation skills
- Analytical skills in combination with evidence based decision making
- Proficient in technical software and tools related to the specific area of engineering (e.g., AutoCAD, MATLAB, SolidWorks, etc.).
- Manufacturing of mock ups and/or prototypes highly desirable
- Test and evaluation of technology and products highly desirable
- Commercial and financial acumen highly desirable

### Education:

- Current enrolment in Material Science degree program

### Experience:

Prior internship or relevant project experience is a plus.

### Additional local needs

- Comfortable with a hybrid working environment
- Able to travel for business both in the UK and abroad if required
- Able to hold UK Security Clearance
- Full UK driving license highly desirable