



Job Profile

Job Title: Liquid Hydrogen Refuelling Manifold Design –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. Engage in the exploration of advanced materials and manufacturing options, specifically for the production of a compact and lightweight refuelling manifold. Contribute to an industrial-led research program dedicated to developing fully integrated liquid hydrogen aircraft fuel systems. Gain hands-on experience in materials engineering and manufacturing processes, shaping the future of sustainable aviation technology.

Responsibilities:

- Collaborate with the technical team to support ongoing integrated liquid hydrogen aircraft fuel system project and initiative.
- Assist in research and development efforts focusing on exploration of advanced materials and manufacturing options, specifically for the production of a compact and lightweight refuelling manifold
- 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