**Scientific Robotics Academy: Senior Engineer - Job Description**

**1. Job Details**

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| Job Title:  | Scientific Robotics Academy: Senior Engineer | Grade Range: | 6 |
| Line Manager: | Scientific Robotics Academy Lead Scientist | Duration of Appointment: | Until 31st March 2025 (with potential for extension) |
| Full Time/Part Time:  | Full Time (37 hours per week) |  |  |

**2. Job Purpose**

The Scientific Robotics Academy (SRA) is funded by the UK Government Shared Prosperity Fund. It is a fixed term project with finite funding. Its overall goal is to provide underpinning robotics training and support to the UK’s environmental science community. It will also aim to provide specialist CPD packages to meet industry needs and promote robotics as part of school educational STEM engagement.

This position will provide core engineering expertise, taking overall responsibility for robotic hardware and relevant software within the Academy. The role will involve design, acquisition, sensor integration and testing of systems; design of training materials; and delivery of short training experiences for collaborators and customers.

This post will sit within the Scottish Marine Robotics Facility at SAMS and will work closely with SAMS Enterprise, the wholly owned commercial subsidiary of SAMS.

*Extension of the role is subject to your drive and success in the creation of a viable self-sustaining entity.*

**3. Main Responsibilities**

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| Time percentages are for Year 1 and will develop and change in time.

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| *Role Description* | *Approx. %**of time* |
| **Develop and maintain –** a portfolio of autonomous, instrumented platforms for teaching robotic capability to all skill ranges, from entry level to, e.g., pre-deployment trials with external professional teams.  | 30 |
| **Deliver –** assist with field, classroom and workshop teaching activities. | 30 |
| **Design and Build –** physical platforms, sensor suites, micro-logger coding and integration of robotics systems to support SRA activities where commercial-off-the shelf units do not exist. | 20 |
| **Lead –** provide expert engineering advice to deliver the ambitious SRA project to time and budget. | 10 |
| **Engage –** lead engagement with stakeholders across the robotics scientific community: \* Support other SAMS projects as required within the Scottish Marine Robotics Facility.\* Contribute towards future income generation to ensure continuation of academy beyond Mar 2025. | 10 |
| Be pro-active in the application of SAMS Health and Safety Procedures | Ongoing |

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**4. Planning and Organising**

* Ability to work independently and manage time to meet the requirements of developing the Academy.
* Maintain any and all engineering-focused safety aspects, such as HSE compliance or other robotic-aligned regulation.
* Remain up to date on autonomous robotic methods and techniques in academia, education and industry.
* Engage with SAMS Research, Education and Enterprise colleagues to develop and maintain a full suite of training technology.
* Engage with the development and maintenance of Standard Operating Procedures and maintain records in line with UK regulation on Health, Safety and Environment, and robotic operations (e.g. CAA or Maritime regulation).

**5. Problem-Solving**

* Assess the technical and engineering needs for the proposed training courses of The Scientific Robotics Academy.
* Engage with the SRA and other teaching staff to steer courses between technical risk and innovative delivery.
* Respond to developing robotics capability, notably swarm capability and AI integration, to provide cutting edge experience to Academy clients.
* Respond to developing science needs to adapt and develop platforms to meet and exceed client knowledge exchange requirements.
* Help create imaginative and engaging training scenarios involving environmental robotics.

**6. Decision-Making**

* Assess project risk to integrating new technology into the Academy portfolio.
* Represent engineering expertise within Academy and also to SAMS, to advise on technical capability gaps or redundancy.
* Propose engineering topics for new courses, seminars and delivery methods to reflect requirements and location of new and existing clients.

**7. Key Contacts/Relationships**

* Internal - SAMS Research colleagues operating in the marine scientific robotics field: including Support Scientists / Technicians, PIs and PDRAs.
* Internal - SAMS Enterprise to ensure possible commercialisation has a robust IP-to-product trail.
* Internal - SAMS Communications team.
* External - Environmental scientific community, governing bodies and funders.
* External - Autonomous systems and robotics community, SMEs and engineers.

**8. Knowledge, Skills and Experience needed for the Job**

* Post graduate qualification or significant experience in engineering, especially with a publication record.
* Generation of Intellectual Property.
* Field experience designing and using autonomous systems: preferably mobile, preferably for environmental research requirements.
* Experience in delivering training and/or teaching programmes.
* Communications skills - Professional communication skills both written and verbal.
* Contacts with the UK/EU small-scale robotics community (University, UKRI and commercial)
* Connected within UK research infrastructure and geophysical community.
* Team leadership.
* Writing skills – scientific and/or consultancy reports and standard operating procedures.

**9. Any other relevant information**

The post holder may be required to perform duties other than those given in the job description for the post. The particular duties and responsibilities attached to posts may vary from time to time without changing the general character of the duties or the level of responsibilities entailed**.** If the normal duties of the post include going to sea (apart from small boats e.g. RHIB's) the applicant must be able to obtain the ENG1 medical certification and complete the STCW 95 Personal Survival Techniques training.

[WHAT SAMS CAN OFFER YOU (please right click and select ‘open in new tab’)](https://vimeo.com/411370772)

Our Values and culture

We strive to be a world-class marine science enterprise that underpins regional, national, and international policy, and societal action to secure healthy and sustainable oceans.

As a workforce, we have a strong family and team culture, helping each other to achieve our goals.

Remuneration

We offer a competitive salary and pension as well as employee benefits package. We also have a number of supportive policies to assist absence, family, and other leave types.

Career Goals

SAMS provides a supportive learning and career growth environment for those looking for that next step in their career or upskill in the workplace. This may be through opportunities to develop techniques, learn more about the science objectives for the group, gain some tutorial opportunities, as well as attend meetings and CPD events.

We’ll provide you with a good start as you join SAMS

SAMS provides an excellent induction which is a great introduction to the organisation, the facilities, your department and team, and provides that support that you need over the early months joining a new organisation. We will also provide you with office space, computing equipment and ensure this is ready for you on your first day of work.

Employee Benefits

In addition to a general remuneration package which includes a generous salary, pension, and sickness absence policy, we offer a number of employee benefits to our staff, some of which are listed below:

* Flexible & Hybrid working arrangements (up to 2 days working from home)
* Purchase of additional annual leave – up to 20 days per annum
* Access to shopping discounts as well as local shop and leisure discounted memberships
* Cycle to work scheme
* Purchase of technology
* Payroll Giving
* Salary Sacrifice – pensions
* Access to wellbeing portals which provide support for mental health, nutrition and fitness and GP referral scheme
* Occupational health support
* Welfare support on site
* Access to CBT sessions
* Sabbatical scheme
* A number of training and development courses to assist you with your career development – leadership, coaching and mentoring.

SAMS’ commitment to gender equality has been recognised, as our institute was presented with an Athena SWAN (Scientific Women’s Academic Network) Bronze Award. SAMS is currently working towards a silver award.

SAMS have received a Youth Friendly Employer Badge 2023 – Bronze Award.

SAMS have received a Bronze Award through the Armed Forces Covenant Employer Recognition Scheme. We recognise the contribution that Service personnel, reservists, veterans, the cadet movement, and military families make to our organisation, our community and to the country. We will seek to uphold the principles of the Armed Forces Covenant through Education, training, and employment of veterans and Service spouses.

As an Academic Partner of the University of the Highlands & Islands (UHI), SAMS is designated as an educational establishment and subject to the provisions of the Protection of Children (Scotland) Act. Certain roles may be subject to a satisfactory check by Disclosure (Scotland) as a condition of their appointment.

Applications must include CV and Cover Letter and should be sent electronically to recruitment@sams.ac.uk quoting Job Ref. ‘D13/23.PA’ in the subject line.

The closing date for applications is 23rd August 2023.

Interviews will be held by the end of August / start of September 2023.

Please note, we prefer to contact referees prior to interview.

Guidance for Applicants

Candidates must have the rights to work in the UK.

Your application – what are we looking for?

We are looking for a full CV – please remember to document all your relevant work experience, listed with the most recent first. You should also include your educational achievements with your most recent qualification first.  You should include skills and competencies gained from previous employment or education. This should be specific to the job description.  Also, please include details of two referees, one referee at least from your current role, who we may contact if invited for interview.

We enjoy reading cover letters and these are an important part of the application. In the letter, connect your past accomplishments with the requirements listed in the job description. Focus on your most relevant experience, qualifications, and skills. Where possible, quantify your accomplishments with facts and data.

 Useful links

* [How to write a flawless cover letter](https://career-advice.jobs.ac.uk/cv-and-cover-letter-advice/how-to-write-a-flawless-cover-letter-in-2020/) (please right click and select open in new tab)
* [How to write a CV](https://www.reed.co.uk/career-advice/how-to-write-a-cv/) (please right click and select open in new tab)

