Job Description

1. Job Details

Job Title:	Landers & Moorings Research Technician	Job Family	Technical and Experimental
Line Manager:	Marine Robotics Manager	Grade and salary range	Grade 5 £32,546.00 - £36,130.00 per annum.
Full Time/Part Time (no. of hrs for part time)	Full Time – 37 hrs per week Mon-Fri	Duration of appointment	24 months

2. Job Purpose

To lead the design, development and building of sub-sea landers and oceanographic moorings for the Seafloor Ecology and Biogeochemistry research group. Assist with at-sea deployment operations for lander and mooring systems.

3. Main Responsibilities

Responsibility Areas	*Approx. % of time*
Deployment & recovery of lander and mooring systems: assist with the at sea operations,	30
Inspection, repair, and troubleshooting for subsea assets (e.g. housings, cables, buoyancy modules etc.), both in lab and at sea	30
Calibration of equipment sensors in the field, particularly oxygen, pH, hydrogen, and conductivity sensors	10
Design, development and building of lander and oceanographic mooring systems: lead in the design and construction of lander and moorings to meet specific project requirements, including procurement aspects.	20
Contribute to routine tasks within the marine robotics and instrumentation team (e.g. general equipment maintenance, procurement, logging, servicing)	5
Logistics: organise logistics for shipping equipment to/from ports of vessel mobilization.	5
Be pro-active in the application of SAMS Health and Safety Procedures	Ongoing

4. Planning and Organising

- Arrange shipping of equipment and associated documentation in a timely manner to allow for issues to be expedited and for equipment to be ready for mobilization according to vessel schedules.
- Maintaining maintenance and servicing of landers and associated equipment.
- Planning and delivering the deployment and recovery of landers and oceanographic moorings over short and long timescales.
- Developing and maintaining Risk Assessments, Safe Systems of Work and Standard Operating Procedures for the deployment/ recovery of landers and oceanographic moorings.

5. Problem-Solving

- Anticipating problems and develop solutions.
- Ability to work as independent technician on national and international research cruises.
- Trouble-shooting landers and mooring systems, and their associated sensors, both in the lab and in the field. Assessing and debugging recently recovered instrumentation prior to redeployment whilst at sea, sometimes alone, under extremely tight time constraints.
- Ability to interpret specialist documents e.g. technical drawings and electrical / electronic schematics.
- Ability to develop and design moorings and lander systems that are fit for purpose to address scientific enquiries whilst being constrained by project time, costs, quality and environmental factors.

6. Decision-Making

- Use available information and experience to propose alternative solutions.
- Be able to propose cost-effective, evidence-based solutions and articulate those so that effective decisions can be made.
- Be able to decide and articulate work priorities and act on those.
- Set realistic deadlines.

7. Key Contacts/Relationships

- Working within the Marine Instrumentation & Robotics team and Seafloor Ecology and Biogeochemistry research group.
- Working in close collaboration with project PIs, support staff, researchers and PhD students
- Working with other SAMS staff requiring support in the design and deployment of oceanographic moorings and landers, including training them when appropriate.
- Liaising with external companies to arrange logistics (e.g. shipping companies, customs agencies, vessel management organizations etc.); this will involve international elements.
- Liaising with external collaborators and project partners (sometimes international)
- Liaising with instruments manufacturers for procurement, maintenance and repairs.

8. Knowledge, Skills and Experience needed for the Job

Essential

- Bachelor's degree or higher national qualification or in-depth experience in a quantitative field (marine science, engineering, physics, maths, environmental science).
- Considerable sea-going expertise, with some experience working on non-UK research vessels desirable.
- Experience in arranging the logistics for shipping equipment and dangerous goods.
- Experience in the design, building and deployment of sub-sea landers and oceanographic moorings for a range of environments (i.e. deep and shallow seas) and durations (i.e. 1 week to several years).
- Experience in the maintenance and calibration of sensors, particularly oxygen, CTDs, pH, hydrogen, conductivity, and turbidity sensors.
- Ability to interpret data from oceanographic instruments with respect to determining proper functioning / calibration / configuration.
- Good electrical / electronic and mechanical knowledge and skills required for field assessment and repairs.
- Excellent record keeping (equipment maintenance records, shipping manifests etc.).
- Pro-active individual who can manage workload and is able to cope with changing priorities and successfully meet deliverables on time.
- Excellent team-working and communication skills.
- Conscientious, pays attention to details.
- Flexible to the needs of the role, with a willingness to learn new skills.
- Ability and willingness to work in sometimes challenging conditions (at sea, polar regions, remote locations, at night).
- Must be able to work at sea and be able to successfully pass ENG1 medical and STCW95 or BOSIET with CABES Sea Survival course, required for attendance on scientific offshore cruises.

Desirable

- Qualified forklift truck driver
- Experience in Matlab or Python programming
- Prior experience of deployment of sediment traps, and handling of associated samples.
- Experience in use of sub-sea camera equipment (e.g. setting up focal distances, exposure, lighting angles etc.).

9. Dimensions – Scope of role

- Role holder will be required to spend extended periods away at sea (6-7 weeks duration) on marine research surveys, sometimes several times each year.
- Co-ordinate the deployment of marine landers and oceanographic moorings, from onshore elements of design and mobilisation (including shipping logistics), to at sea deployment, troubleshooting and recovery.
- Provide mooring support for SAMS marine fieldwork activities locally and offshore.

10. Any other relevant information

Operating in a wide ranging, rapidly changing and often challenging technical field, requiring specialist knowledge.

There are occasions in the job where the holder may be working alone, in challenging conditions, and/or out-of-hours when decisions have to be made quickly and efficiently to ensure the safety of personnel and/or equipment and data quality.

There is an allowance for offshore seagoing time.

The role holder would have opportunities to contribute to relevant commercial opportunities and teaching as appropriate to their skill set and expertise.

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.