

**Job Title:** Graduate Instrumentation Scientist  
**Grade:** 6  
**Salary:** £33,002 to £37,694 per annum, pro-rata  
**Department:** Physics and Astronomy  
**Hours/Contract:** Full-time or job shared considered and fixed-term until 31 March 2026  
**Job Family:** Technical and Experimental  
**Reference:** 12149

## Role Purpose

This role will lead on the technical support of the development and design of a Raman spectrometer as part of the UKSA bilateral programme in collaboration with ispace. The post holder will provide practical support to staff and industry partners working within the Prototype Laboratory, using the specialist laboratory facilities, such as prototype Raman spectrometers. This includes responsibility for the evaluation of the system's technical performance, supporting the qualification tests and operations planning, and supporting the development of the code to run various parts of the system.

## Resources Managed

- Laboratory equipment
- Small budget for Prototype Lab and workshop consumables
- Manage own time under the general supervision of the Prototype Lab Assembly, Integration and Test team

## Main Duties and Responsibilities

### Prototype Design, Development and Testing Support

- Performing electronics checks and fixes (where necessary), being responsible for ensuring the prototype meets electronic requirements.
- Performing mechanical checks and fixes (where necessary), being responsible for ensuring the prototype meets mechanical requirements.
- Being responsible for the development and testing of the code used to run the electronics and any mechanical parts (where necessary).
- Supporting experimental test and verification processes to enable project teams to demonstrate compliance to project requirements.
- Contribute to the development of the prototype CAD, including adapting and refining development and testing practices to improve/streamline the process and/or results.

### Laboratory and Test Facility Support

- Maintain and oversee the technical running of specialist equipment and test facilities within Prototype laboratory – including the prototype Raman spectrometer and XRF instrumentation.
- Provide in-depth advice and technical, hands-on support to the internal Leicester project team using the Prototype laboratory.
- Identify, diagnose and rectify any faults/problems with equipment, systems and procedures, escalating where necessary.
- Lead the maintenance of the Laboratory equipment register and catalogue of the laboratory consumables.





- Any other duties required by the Prototype technical team to ensure the safe running of the laboratory.

## Laboratory Stock Management and Procurement

- Monitoring, sourcing and procurement of laboratory consumables and equipment, including budget management responsibilities.
- Liaising with suppliers where there are delivery issues or non-conformances with delivered items.
- For specialist deliveries, ensuring that handling precautions are followed (e.g., cold storage and security) by all members of the laboratory team.
- Determining requirements for current and future stock and equipment, to meet demand and maximise the efficient use of resources without wastage. This will involve liaison with Project/laboratory managers to investigate future requirements for stock control.
- Being responsible for advising staff on the storage, handling and transport of items including gases, cylinders, solvents, cryogenics and chemicals.
- Being responsible for ensuring safety considerations are met and risk assessments are in place.

## Internal and External Relationships

Daily contact with academic, research and technical staff within the School of Physics and Astronomy

Regular contact with external suppliers

Contact with industry partners

## Planning and Organising

Plan and prioritise own workload. Some work is reactive and depends on the activities within the Prototype Laboratory, plan other duties around this work.

Follow set maintenance schedules which may also be overseen by line manager and senior technical staff

Take into account external delivery schedules and laboratory materials required for customers, and work to deadlines when processing orders.

## Qualifications, Knowledge and Experience

### Essential

- Educated to Masters-level in relevant STEM discipline (\*)
- Some previous research experience with the development of analytical instrumentation (\*)
- Some previous experience in experimental Physics (\*)
- Some previous research experience of the science flowdown of a mission (\*)
- Experience of working with laboratory consumables
- IT knowledge, including Microsoft Office, Excel, PowerPoint and email (\*)
- Prepared to attend appropriate training courses
- Aptitude and willingness to learn new skills





## Desirable

- Knowledge of safe handling of ESD materials
- Experience of undertaking risk assessments
- Experience of electronics fault finding
- Experience of populating and interpreting information from databases
- Previous experience in electrical (e.g., harness construction) and/or mechanical engineering disciplines, either in industry, research or education
- Experience of populating and interpreting information from databases
- Experience of working in a team

## Skills, Abilities and Competencies

### Essential

- Work on own initiative
- Effective interpersonal skills
- Effective oral and written skills in order to communicate effectively with staff and industry partners (\*)
- Ability to follow procedures and protocols, specifically when working with specialist test facilities
- Ability to conduct practical laboratory activities safely and efficiently (\*)

### Desirable

- Experience of working to pre-defined maintenance or safety procedures within a research or industrial setting
- Full, clean UK Driving Licence

***\*Criteria to be used in shortlisting candidates for interview***

## Reason for Fixed Term Contract

The reason for the fixed term contract is stated in section 1.9 in the summary of contractual terms in your contract of employment.

## Criminal Declaration

If you become an employee, you must inform your manager immediately, in writing, if you are the subject of any current or future police investigations/legal proceedings, which could result in a criminal offence, conviction, caution, bind-over or charges, or warnings.

## Supporting University Activities

As a University of Leicester citizen, you are expected to support key university activities such as clearing, graduation ceremonies, student registration and recruitment open days. We expect all staff as citizens to work flexibly across the University if required.





### University Values

**Inclusive** - We are diverse in our makeup and united in ambition. Our diversity is our strength and makes our community stronger.

**Inspiring** - We are passionate about inspiring individuals to succeed and realise their ambitions. We challenge our community to think differently, to get involved, and to constantly embrace new ideas.

**Impactful** - As Citizens of Change we will generate new ideas which deliver impact and empower our community

### Equity and Diversity

We believe that equity, diversity and inclusion is integral to a successful modern workplace. By developing and implementing policies and systems that challenge stereotypes across all aspects of our work, we have a culture that recognises and values the diverse contributions of our staff which benefits everyone. Our strong values of inclusivity and equity support our efforts to attract a diverse range of high-quality staff and students, and identify our University as a progressive and innovative workplace that mainstreams equity, diversity and inclusion.

