Open position at Light Bridges — Instrument Scientist

Light Bridges invites applications for one full-time position:

1 — Instrument Scientist · Optical Systems & Telescope Operations (LB-CORVUS-03)

Positions available	1
Location	Hybrid — Tenerife, Canary Islands, Spain
Project	CORVUS
Publication date	18 August 2026
Application deadline	27 September 2026
Expected starting date	November 2026

About Light Bridges

Light Bridges is a private company based in the Canary Islands dedicated to the operation of scientific infrastructures and to carrying out research projects, mainly in **astronomy, ground-to-space optical communication and high-performance computing**. We operate the Two-meter Twin Telescope (TTT) and the Transient Survey Telescope (TST) at the Teide Observatory, together **one of the largest fully robotic telescope facilities in the world**, alongside ASTROPOC, a high-capacity centre for massive data management and processing, with CPU/GPU compute and high-performance storage located next to the telescopes themselves.

The project

CORVUS is an end-to-end platform for the detection and characterisation of fast-moving, very faint objects (near-Earth objects and space debris) built around GPU-accelerated synthetic tracking, and representing a major investment in new technology aimed at advancing global **Planetary Defence** capabilities. CORVUS is coordinated by Light Bridges (P.I. Miguel R. Alarcón) in partnership with the Instituto de Astrofísica de Canarias (IAC) and the Universidad de Oviedo (UniOvi), awarded under the 2025 Public-Private Collaboration call of the Spanish State Research Agency (AEI) and funded by MICIU/AEI/10.13039/501100011033 (project CPP2025-012040).

Detecting objects this faint and this fast is only possible if the telescopes feeding the pipeline deliver consistently sharp, well-characterised images. Every arcsecond of image quality lost to optical drift, thermal effects or misalignment directly reduces the sensitivity of the detection chain, the difference between catching a hazardous object early and missing it entirely. This position is funded within CORVUS to close that gap: to keep the Two-meter Twin Telescope

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(TTT) and the Transient Survey Telescope (TST) at Teide Observatory performing at the level the project's detection algorithms require.

The position

This is a hands-on instrumentation role at the interface of optics, mechanics, software and daily telescope operations. You would be responsible for:

- **Continuous improvement of optical quality** through active optics models, diagnosing and correcting image degradation as conditions change.
- **Mechanical design of parts and subsystems** for new instruments.
- **Daily monitoring of data quality**, catching instrumental issues before they affect scientific output.
- **Improving on-telescope processes and algorithms**, from calibration routines to operational workflows.
- **Participating in observing campaigns** within CORVUS, working alongside the algorithm and software team.

You would work as part of a group of 6 to 10 astronomers, software engineers and researchers across the three partners, with particularly close ties to the Operations Team running TTT and TST day to day.

Work is centred on CORVUS, but not limited to it. Light Bridges currently runs a range of research projects, most of them astronomy-related, and both positions may involve joining or contributing to other research lines and tasks within our Science and Operations teams. We would particularly welcome candidates willing to **lead or take an active role in their own instrumentation projects**.

Requirements

- **PhD** in any quantitative discipline (physics, optics, astrophysics, mechanical/optical engineering, etc.) obtained **before the end of 2026**.
- Hands-on experience with Mechanical design for telescope or **optical instrumentation**.
- Working knowledge of Python for data analysis and automation.
- Professional-level English (working language of the consortium and our international collaborations).

We expect candidates to be comfortable **working autonomously**, with regular but not day-to-day supervision, and to be available for **regular on-site work at the observatory**.

Nice to have

No one will tick every box below and we do not expect it. Tell us which ones you bring.

- Advanced CAD design, including tolerancing and design for manufacturability.

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- Optical design software, such as Zemax or equivalent.
- Experience with active or adaptive optics systems in an operational (not just theoretical) context.
- Experience with opto-mechanical integration and alignment of instruments on telescopes.
- Familiarity with astronomical instrumentation across imaging, spectroscopy, polarimetry or interferometry, and their calibration.
- Experience with telescope control systems or robotic/automated observatories.
- Data quality monitoring or pipeline diagnostics in an observational context.
- Experience moving research code into production.
- Git-based workflows and version control.
- Research experience in Solar System science, near-Earth objects, or Space Situational Awareness (SSA).
- Spanish (useful day to day, not required).

Contract information

- Indefinite contract, with dedicated project funding secured through February 2029.
- Primarily remote, but with regular visits to Teide Observatory (Tenerife, Canary Islands, Spain) and on-site presence required during observing campaigns.
- Full time, with flexible working arrangements.
- approx. €39,700 gross per year (€48,700 total employer cost).

How to apply

Send a **CV** and a **short letter** (max. 2 pages) to **jobs@lightbridges.es**, stating what you could bring to the project and how your profile fits it. Questions about the positions or the application process are welcome at the same address. Links to designs, instruments you have worked on, or technical publications you are proud of are more useful to us than long lists of courses.

Light Bridges is committed to equal opportunity. We actively encourage applications from women and from candidates from under-represented groups in optical and mechanical engineering and space science.

We expect to review applications until 27 September 2026, but a decision may be made earlier, so we **encourage you to apply as soon as possible**.

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