Peter Tisdall

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OBJECTIVE

Experienced Assembly, Integration, and Test (AIT) engineer with a background in mechanical & electrical systems in the space industry. Practised in a wide variety of system integration and verification techniques, with a passion for working in a hands-on role. Seeking opportunities in the Limerick region as an engineer or technician.

CAREER SUMMARY

Curtiss-Wright, *Ireland* 2023–Present
Senior Systems Engineer

- Performing qualification and acceptance testing of ethernet-based data acquisition systems designed for use with launch vehicles & other spacecraft, as a part of the Space Projects team.
- Operating in-house environmental simulators to emulate launch and flight environments.
- Creating a wide variety of technical documentation, for internal purposes and delivery to customers.
- Manufacture and validation of ground support equipment for customer and internal use.

Spacecraft Integrations Ireland, *Ireland* 2023
Assembly, Integration, and Test Engineer

- Operating as a sole trader providing training & on-site support for spacecraft integration and testing, with a focus on electrical systems.
- Manufacture of spaceflight harness in accordance with ECSS standards.

RHEA Group GmbH, *Germany* 2021–2022
Assembly, Integration, and Test Engineer

- Contracted to ispace inc. as a member of the Electrical AIT team for the integration, verification, & launch of the M1 Hakuto-R lunar lander.
- Integrated mechanical, electrical, and propulsion subsystems in a clean-room environment.
- Conducted full functional tests of the Hakuto-R avionics systems as a part of flight acceptance testing.

OHB Sweden AB, *Sweden* 2018–2021
Assembly, Integration, and Test Engineer

- Worked as a member of the Production & AIT department to manufacture and test spacecraft propulsion systems, including electrical and thermal support systems.
- Led the integration of a three-axis articulated boom qualification of new materials and processes to meet international standards.
- Integrated & verified electrical, mechanical, & propulsion subsystems for spacecraft.
- Manufactured electrical and mechanical support equipment in a workshop environment.

University of Southampton, *UK* 2017–2018
Postgraduate Researcher

University of Oxford, *UK* 2015–2016
IT Support Officer

EDUCATION

University of Surrey, *UK* 2016–2017
MSc, Space Engineering, with Distinction
Thesis: *'Development and testing of a pulsed powered electrochemical plasma thruster'*

University College Dublin, *Ireland* 2012–2014
MRes, Optical Astronomy
Thesis: *'Optical observations of southern hemisphere blazars with the Watcher telescope'*

University College Dublin, *Ireland* 2008–2012
BSc, Physics, Astronomy and Space Science
Thesis: *'Optical observations of the M36 star cluster and short timescale variability blazars'*

TECHNICAL SKILLS & EXPERIENCE

Integration & Test

Avionics: Electrical integration, functional & acceptance testing, and harness manufacture.

Environmental Testing: Thermal, vacuum, vibration, and shock.

Processes: Developing & qualifying integration and test processes to meet ECSS and MIL standards.

Automation: Functional tests at sub-system and system level, primarily using Python.

Ground Systems: Battery charging system, check-out & emulation, and electrical/mechanical support equipment manufacture.

RF Systems: RF path simulation and testing, and ground support equipment development and verification.

Notable Projects: Hakuto-R lunar lander, Biomass, H2Sat, SLS Block 1B, Vega-C, THOR Boom.

Systems Engineering

Quality: Collaboration with customers & internal quality teams to ensure hardware is manufactured to a high standard and in accordance with customer requirements.

Documentation: Authored a wide variety of technical documents, for internal purposes and delivery to external stakeholders.

Reviews: Preliminary Design Review (PDR), Critical Design Review (CDR), Test Readiness Review (TRR), Test Review (TR), Non-Conformance Review (NCR).

Spacecraft: In-depth knowledge of spacecraft design, space environment considerations, and payload integration.

Standards: NASA, ECSS, and MIL standards; Qualified crimping operator & inspector in accordance with ECSS-Q-ST-70-26c.

Operations: Launch and Early Orbit Phase (LEOP), Launch pad operations, and flight engineer support.

Other Relevant Skills

Qualified as: First Aid Responder (FAR) – course completed in November 2024 with the Order of Malta.

Proficient in: Python programming language for data analysis and simple automation.

Adept with: Microsoft Office suite, UNIX systems, and network analysis tools.

Familiar with: Workshop tooling, such as manual milling, lathes, and hand tools.

Experience in: Creo CAD, KiCAD circuit design, and RapdHarness software packages.