

AEROSPACE ENGINEERING GRADUATE / QUALITY INSPECTOR

Mahosha Sandaru Kaballamuru

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BSc (Hons) Aerospace Engineering graduate (2:1), with aerospace quality inspection, assembly and practical manufacturing experience. Seeking graduate or trainee aerospace, space and systems engineering opportunities.

CURRENT EXPERIENCE

Aerospace / Mechanical Quality Inspector

Industrial Gas Springs (Barnes Group Inc.), Mitcham | Dec 2025 - present

- **Reporting and priorities.** Report to the Quality Manager and organise inspection work around customer requirements, production workloads and delivery pressure.
- **Drawing-led inspection.** Carry out first-off and final component inspection against engineering drawings, tolerances and documentation; inspect incoming raw materials against applicable engineering standards.
- **Dimensional measurement.** Use a shadow gauge, Trimos Altia height gauge, digital callipers, micrometres, thread gauges and plug gauges to establish component conformance.
- **Spring performance.** Test aerospace springs on a dedicated rig to determine forces and K factor, recording inspection and test results.
- **Bespoke aerospace work.** Perform 100% inspection of bespoke military aerospace springs and prepare the associated inspection and test reports.
- **In-house calibration.** Calibrate vernier/digital callipers and micrometres in house under the company calibration process.
- **Calibration control.** Manage the calibration database and arrange third-party calibration against the organisation's UKAS-related calibration requirements.
- **Surface condition.** Inspect component surface finishes, including internal surfaces, against the relevant drawing and customer requirements.
- **Production feedback.** Identify first-off faults for machine-shop correction, report production problems and support process control through timely feedback to the Quality Manager.

Working within AS9100 Rev D and ISO 9001:2015 quality systems. UKAS-related wording concerns calibration requirements, not personal accreditation.

CONTINUED / AEROSPACE AND SPACE

Experience, projects and development.

Aerospace Assembly Technician

Honeywell Aerospace Wheels & Brakes - Feltham | Aug 2025 - Dec 2025

Wheel and brake overhaul activities using component maintenance manuals: part inspection, hub assembly and tyre mounting, with FOD and tool-control procedures.

Mechanical Technician

Autosolutions Automotive Electronics Ltd - Croydon | Sep 2024 - Jul 2025

Mechanical and electrical fault-finding work using technical documentation. Experience with vehicle schematics, multimeters and oscilloscopes is recorded in the supplied CV.

Trainee Engineer

Lakwin Aviation - Ratmalana, Sri Lanka | Jan 2023 - Aug 2024

Aviation maintenance support using maintenance documentation and calibrated tools. Role details follow the supplied career records.

SELECTED PROJECTS

- **Lunar simulant composites:** preparation and compression testing; six original runs (two marked failed), peak 20.55 kN. No optimum or lunar qualification established.
- **Aircraft design:** glider tail CAD, drawings and assembly/alignment (SolidWorks/JavaFoil); landing gear assembly of nine supplied-dimension parts (Autodesk Inventor).
- **Cowl-flap manufacture:** first-year Piper Seneca 2 team prototype, aluminium 6061 forming, riveting, assembly and finishing with specialist workshop support.
- **Space and software studies:** AI-assisted Hall Thruster Lab and Mission Readiness, with model limits disclosed. OpenFAIR drawing-extraction development.

EDUCATION AND PRACTICAL FOUNDATION

BSc (Hons) Aerospace Engineering, Upper Second Class Honours (2:1)

Kingston University, London | Awarded 12 June 2025

Taught in collaboration with Asian Aviation Centre, Sri Lanka.

Hands-on steel and metal forming and other metalworking during the degree.

DEVELOPMENT INTERESTS

Avionics and integration | Astronautics and propulsion | Orbital mechanics and mission design. These are career interests, distinct from specialist employment experience.