

Orbital systems
Satellites
Transversal competencies



SYMETRIE designs and manufactures precision positioning & motion systems that meet the most specific needs of industrialists and research institutes.

SYMETRIE is specialized in hexapods, parallel kinematics mechanical systems used to position an object in space in 6 degrees of freedom with high accuracy, resolution and stiffness.

COMPETENCIES & CAPABILITIES

SYMETRIE provides to space industry companies ready-to-use hexapod machines, delivered with ergonomic software for a quick start.

These hexapods can be used to accurately test and position satellite antennas, to align and assemble components together, to adjust and calibrate optical benches or to verify the quality of the optical instruments and their subassemblies.



ZONDA Hexapod: Calibration of space optical instruments for MTG satellites
Credits: Bertin Technologies

SYMETRIE

PRODUCTS & SERVICES

A hexapod is a parallel kinematic structure composed of a mobile platform linked to a fixed platform by 6 actuators and 12 joints.

This design allows to move an object placed on the mobile platform in 6 DOF (Degrees Of Freedom) with submicrometer resolution. In other words, the hexapod can move an object along the 3 translations (Tx, Ty, Tz) and the 3 rotations (Rx, Ry, Rz); the pivot point is configurable via software.

Vacuum and clean room versions are available.

Symétrie also offers comprehensive services including installation, training and maintenance.

MAJOR SPACE PROJECTS & REFERENCES

Space projects: BepiColombo, EnMAP, Gaia, JWST, MTG, PLATO, Sentinel 5...

References: Airbus Defense & Space, AMOS, CSL, ESA, Eutelsat, IAS, IUCAA, LAM, Leonardo, MDA, OHB, Safran Reosc, SpaceCom, Thales Alenia Space...

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TURNOVER 8 M€

WORK FORCE 45

SPACE TURNOVER 1,9 M€

SPACE WORK FORCE NC