Reference: TD-PL-1001



TECHNOLOG





TECHNOLOGY DESCRIPTION

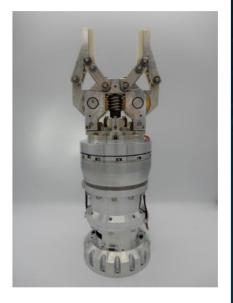
The Multipurpose Gripper is a multifunctional end-effector for orbital robotic arms. It consists of two main subsystems: the rotary module and the gripper module. The rotary module provides an unlimited 360° rotation, allowing for screwing/unscrewing fasteners, applying torque, etc. The gripper module supports interchangeable end tools (screwdrivers or MLI knives) and can be used to transfer objects, such as Orbital Replaceable Units (ORU). The main features are:

- Unlimited 360° rotation
- · Configurable movement profile
- · Configurable current limits
- · Integrated local thermal control
- Compatibility with many standard robot interfaces



INNOVATIVE ASPECTS

- · Modularity of the design
- Integrated force and torque sensor
- Ability to operate in automatic mode
 Ability to operate in automatic mode
- Ability to grasp differently shaped objects
- Grasping speed to prevent loss of the grasped object under reduced gravity
- · Resistance to inaccuracy of linear and angular positioning



TECHNOLOGY READINESS (in space application)

TRL 5 (2024)

Poland 04/2024

COUNTRY OF ORIGIN

TAGS #robotic arm #multipurpose #360° rotation #modular #interchangeable #compatible

APPLICATION AREAS

Aviation Electronic Engineering

Energy

Infrastructure & Smart Cities

Mechanical Engineering Space technologies Transport & Logistics

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