



## 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 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)



COUNTRY OF ORIGIN

Poland

LATEST UPDATE

04/2024

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

## APPLICATION AREAS

Aviation	Electrical & Electronic Engineering	Energy	Infrastructure & Smart Cities	Mechanical Engineering	Space technologies	Transport & Logistics
----------	-------------------------------------	--------	-------------------------------	------------------------	--------------------	-----------------------

SPACE  
FOR BUSINESS  
BUSINESS  
FOR SPACE

# TECH CARD

