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TITLE

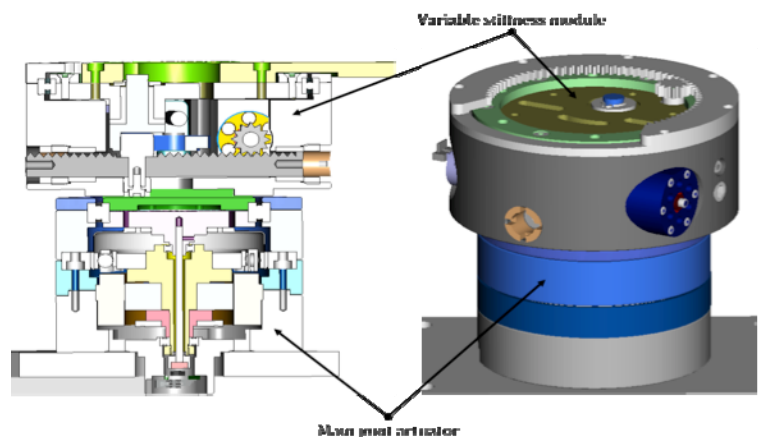
Modular Variable Stiffness Actuator

INVENTORS

Darwin Caldwell, Gianluca Pane, Amir Jafari, Nikolaos Tsagarakis

DESCRIPTION

The novelty of the proposed variable stiffness actuation unit is the use of specially cam shaped lever arm mechanism with a variable pivot axis (instead of regulating the effective arm length or the point where the force is applied). This permits the compact implementation of the variable stiffness module through the use of: reduced length lever arm, smaller springs and a rack and pinion mechanism to regulate the lever arm pivot position.



APPLICATIONS

This solution allows the compact and modular realization of the variable stiffness unit, which permits the exploitation of the actuator in multi dof robotic systems.

KEYWORDS

actuator, variable stiffness

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Giunto rotante a rigidità regolabile

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Applicants Fondazione Istituto Italiano di Tecnologia

CONTACTS

Technology Transfer Office

Lorenzo De Michieli

+39 010 71781 569

lorenzo.demichieli@iit.it