



ISTITUTO ITALIANO
DI TECNOLOGIA

TITLE

Controlled Clutch/Actuator Device And Method For Robotic Applications

INVENTORS

Jorn MALZAHN, Vishnu DEV AMARA, Nikolaos TSAGARAKIS

DESCRIPTION

The invention relates to a method and a related device for the actuation of an end effector in a robotic apparatus, such as a humanoid, a gripping arm for industrial applications and the like. The method provides a friction interposed between an electric motor and the end effector. The device allows to limit the resistive torque (τ_l) transmitted in case of sudden overloads from the end effector. The clutch is also used to connect and/or disconnect the actuator and the end effector at controlled time intervals during the operation of the robotic apparatus.

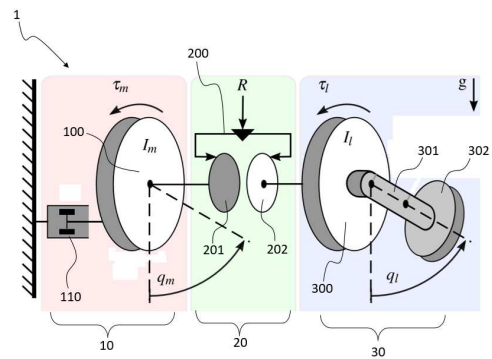


Fig. 1

APPLICATIONS

Robotics, biomedical

KEYWORDS

Arm, clutch, cables, pulleys, torque limitation, transferring organ, actuator

BIBLIOGRAPHIC DATA

Metodo E Dispositivo Attuatore A Frizione Controllata, Destinato In Particolare Ad Applicazioni Robotiche

Application Number IT 102018000005550

Priority Date May 21, 2018

Applicants Fondazione Istituto Italiano di Tecnologia, Università degli studi di Genova

CONTACTS

Technology Transfer Office

Matteo Faccenda

Matteo.faccenda@iit.it

+39 010 71781 968