Title (en)

ROBOT

Title (de)

ROBOTER

Title (fr)

ROBOT

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Application

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Abstract (en)

[origin: SG11201907005XA] ROBOT The invention relates to a robot having: a moving manipulator (102) driven by means of actuators (101a-c), a first unit (103) for determining external forces and/or external 5 torques acting upon the manipulator (102), and a second unit (104) for controlling and regulating the actuators (101a-c) as a function of the determined external forces and/or external torques acting upon the manipulator (102), wherein the second unit (104) is designed to control/to regulate the actuators for a predefined sub-space T1 of a working space AR of the manipulator (102) such that the manipulator (102) recedes flexibly into 10 the sub-space T1 upon the application of a determined external force and/or of a determined external torque onto the manipulator (102) along a projection⃗ 1 of the force and/or of the torque, wherein the following applies: 1 ⊆ , and the working space AR specifies all permitted translations and/or rotations of the manipulator (102), and to determine, for a space TK1 complementary to the sub-space T1, a projection⃗ 1 of the 15 determined external force and/or of the determined external torque into the complementary space TK1, wherein the following applies: 1 ∩ 1 = { 0 } , 1 ⊆ , and 1 ⊆ , to classify the projection⃗ 1 into one of several predefined classes with respect to amount and/or direction and/or time curve, wherein at least one event-discrete and/or continuous setpoint control command and/or one setpoint control rule is stored for 20 each predefined class, and to control/to regulate the actuators (101a-c) as a function of the classification of the projection⃗ 1 based on the respective setpoint control command and/or setpoint control rule. (Fig. 1 accompanies abstract)

IPC 8 full level

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