



ISTITUTO ITALIANO
DI TECNOLOGIA

TITLE

Mano Artificiale

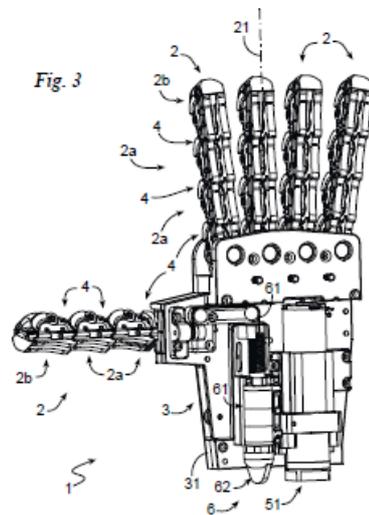
INVENTORS

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DESCRIPTION

The invention exploits the frequency content of EMG in an innovative and natural way. Rather than using the sort of frequency modulation that commercial EMG decoders adopt, the device aims at shaping the posture of a poly-articular prostheses by using the velocity reference itself, associating different speeds with different movements.

A passive damping component is introduced in a robotic hand to achieve this idea. The damper acts only on one finger or on one phalanx. It acts on the joint by a viscose torque and therefore proportional respect to the velocity of the closure movement. This is itself proportional to the velocity of the control input.



APPLICATIONS

Prosthesis

KEYWORDS

Dynamic synergies, pinch grasp, power grasp, soft-hand, EMG, dampers

BIBLIOGRAPHIC DATA

Artificial hand

Application Number

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Applicants

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