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REVIEW OF VARIOUS GRIPPING MECHANISMS FOR A PROSTHETIC HAND

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Abstract

The various gripping mechanisms for prosthetic hands are reviewed in this paper. The design of gripping mechanism for prosthetic hands is usually an important and complex task, especially when the mechanism attempt to simulate dexterous fingers with multiple joints actuated. The gripping devices usually consist of a finger like and thumb like member to grip an object. A number of mechanisms are developed to provide the gripping like adaptive grasp system, cross four bar mechanism, six axis Southampton mechanism one way lock, variable force transmission mechanism, and six bar chain mechanism. The cable and spring mechanism is used to compensate the problem face by the other mechanisms like weight of hand, backlash in the joint, poor function of existing artificial hands.

Keywords: Gripping, Adaptive grasp, mechanism.

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