

DESIGNING OF AN EXPERIMENTAL STAND FOR DEVELOPMENT OF A REVOLUTE JOINT DRIVEN BY PNEUMATIC ARTIFICIAL MUSCLES

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Abstract: Starting from the model of the human biological joints, this work presents a technical solution for joints which can be mobilized in the revolute movement by two antagonistic artificial muscles. Having in view the said model, the stand is arranged in such a way that a small number of elements is needed to make the system work. Therefore, the stand is made of pneumatic equipments, a lever device and a recording system for the functional parameters. This stand is provided with all elements to enable appreciations regarding the joint stiffness and the relation between the supplying pressures and the angled position of the lever.

Key words: experimental stand, antagonistic pneumatic muscles.