

## Exoskeleton - control by pressure sensors - practical solution

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*Abstract:* Exoskeleton - control by pressure sensors - practical solution Mateusz Krain, Bartłomiej Zagrodny, Jan Awrajcewicz Abstract: This work is connected with practical solution of exoskeleton control. Authors propose an approach to exoskeleton design, and its control namely creating a simple, portable control program which does not use problematic input signals such as electromyography. Instead the system utilizes solely specially designed pressure sensors, which are more resistant to failure and distortion. The research was performed initially on a LabView model, and next experimentally on a 1-DOF elbow joint test exoskeleton. The paper presents results of the research, practical implementation of the system to a simplified exoskeleton and comparison between theoretical and experimental results. Finally, conclusion on research and obtained conclusions are shown with its advantages and disadvantages.

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