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METHOD OF IDENTIFICATION OF KINEMATIC PARAMETERS OF MULTILINK MANIPULATORS DESIGNED TO PERFORM UNDERWATER TECHNOLOGICAL OPERATIONS

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The paper proposes a method for identifying the kinematic parameters of multilink manipulators with a sequential kinematic scheme. This method, using simple and affordable tools, allows to significantly increase the accuracy of moving the working tools of robots performing various technological operations. The proposed method has been experimentally tested and can be most effectively used to identify the parameters of newly created manipulators for marine robotic complexes. This is due to the fact that these unique products with a different number of links, the axes of the joints of which are located at arbitrary angles, are assembled without the use of expensive systems for monitoring the spatial position of its parts (control and measuring machines, laser trackers, etc.). As a result, this negative factor, which significantly affects the accuracy of the movement of manipulators' working tools in automatic mode, can be effectively eliminated by simple, cheap and affordable means.

Keywords: multilink manipulator, identification, kinematic parameters, calibration

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