
Modeling of space robotic manipulator approach operations to the object on the function simulation stand using machine vision systems

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One of the operations performed by robotic manipulator (RM) is an approach of RM to the object using computer vision systems (CVS) to obtain data on the relative positions of the gripper and the object. A method for determining the CVS camera coordinates with respect to the object by image processing when controlling the space robotic manipulator (SRM) in the mode of motion near the target is proposed. Software has been developed and the results of in-line simulating RM guidance operations are presented.

Keywords: function simulation stand, computer vision system, pattern recognition, digital image, guidance, simulation results.

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