

Simulation of the Mechatronic Dynamic Platform Equipped with Laser Navigation System to Operate the Spacecrafts

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Abstract. The performance potential of optical and laser technologies offers the great challenge of using them in many industries and areas of science effectively. For example, high intensity precise directional electromagnetic radiation is factored into the test program with the use of a portable high-precision system. The most significantly factor is that laser targeting is used for the detection and tracking of dynamic objects of any shapes. To expand the field of vision the laser systems is installed in multimotion control platform. In this paper we propose a model of a N -degree-of-freedom motion platform. Also we investigate, using computational modeling and simulation, the potential of the $1D$ -motion platform to expand the field of vision of the laser systems and we receive influence from other variables.

Keywords: method, simulation, efficiency, dynamic platform, model, estimation, rough guidance, laser, control, space, guidance system, tracking