Production of Planetary Mechanism Model Prototype using Additive Method of Rapid Prototyping

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An article deals with a production of a planetary mechanism model prototype using an additive method of Rapid Prototyping (RP) by a 3D printer called uPrint. The first part of the article contains a theoretical analysis of a main principle and kinematics parameters of the planetary mechanism model. The second part begins with an experimental analysis of a planetary assembly calculation and continues with a description of a production process of all individual mechanism parts and description of the final completing of the planetary mechanism prototype. The final part deals with a characterization of ABS styrene polymers generally used for production printed by uPrint device.

Keywords: Additive Method, Rapid Prototyping, Fused Deposition Modelling, uPrint, Planetary Mechanism, ABS Styrene Polymer

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