

A Rapid and Cost-Effective Approach to Manufacturing Modeling Platform for Fused Deposition Modeling

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Abstract : This study presents a cost-effective approach for rapid fabricating modeling platforms utilized in fused deposition modeling system. A small-batch production of modeling platforms about 20 pieces can be obtained economically through silicone rubber mold using vacuum casting without applying the plastic injection molding. The air venting systems is crucial for fabricating modeling platform using vacuum casting. Modeling platforms fabricated can be used for building rapid prototyping model after sandblasting. This study offers industrial value because it has both time-effectiveness and cost-effectiveness.

Keywords : vacuum casting, fused deposition modeling, modeling platform, sandblasting, surface roughness

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