

Design and Development of Dual Extruder 3D Printer

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Abstract: 3D printing is a desktop fabrication. It is really innovative and unending process idea along with the cost of this project is less, it is used to create ideas into reality. 3D printer machine assembly is done by using equipment in workshop or home, parts of the 3D printer which are available in the market. 3D printing or additive manufacturing is a process of making three-dimensional solid object of any shape from a digital model. Successive layers of materials laid down to build an object. Each of the layers can be seen as thinly sliced cross-section of the object. 3D printing enables the production of complex shapes using less material than traditional additive manufacturing method. In particular, we integrated a heated dual nozzle extrusion system and a cooling platform in the new system. In addition, we altered the software of the 3D printer to ensure fully automated procedures are delivered by 3D printing device. As for the software, the firmware of the conventional 3D printer was changed and modified to allow for the flow of the filament, thus eliminating overflows in sections of the printing path where the speed changes sharply

Keywords: 3D printer, Additive manufacturing, Dual extruder.

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