

Abstract Submitted  
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**Construction of a dual-filament 3D printer** M. CRAIG, G. TCHERNIATINSKY, J. OBIEFULE, R. EDELMAN, R.D. DIEHL, Pennsylvania State University — 3D printers are a new form of technology that can create 3-dimensional solid objects from a digital file. My project is to design and construct a new 3D printer that prints using two different plastics, ABS plastic and PLA plastic, in two different colors. The plastic material is heated and squeezed through the extruder of the printer and is then deposited onto a heated plate in layers to create a 3-dimensional object. My objective is to print models of C-60 molecules as a conceptual tool for our research group. To do this, the new printer will use a dual extruder that can print multicolored plastic objects. This new printer's exterior was completely laser cut out of acrylic while the inside of the printer itself was created using our old 3D printer.

Marquise Craig  
Pennsylvania State Univ

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