

Incorporation of electronic components in 3D printing

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Status:

Seeking R&D and/or
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 Patent Pending

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3D Printing with Electro-mechanical Systems

- 3D printing is a fabrication process whereby the part geometry is built in a layer-by-layer manner.
 - This enables the creation of parts with complex geometries in a single step.
- However, most use non-conductive polymers for fabrication, thereby limiting to parts and assemblies with electronic components.
- Technology provides simple and effective way to embed electronic components within printed objects
 - Comprised of an electronic component module and a methodology that is embedded in the 3D objects
- Fabrication process pauses, and notifies operator to insert electronic component modules

Advantages of 3D Printing with Electro-mechanical Systems

- Envisioned that technology will allow for automatic placement of electrical components
- Allows for electronic features to be placed in customizable 3D objects
- Does not require geometry of prototypes to be simplified
- Provides an outlet for a greater variety of products to be produced



Figure 1. Representative picture of 3D printer.

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