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Morphable 3D Printers and Other Related Additive and Subtractive Manufacturing Machines

A reconfigurable machine switches between additive and subtractive modes to speed builds and enable multi-material parts.

Researchers at Purdue University have developed a new approach to integrated additive and subtractive manufacturing, referred to as convergent manufacturing. The method allows for 3D printing between different products. The technology morphs into different modes depending on its intended use.

Advantages:

-Efficient

-Versatile

-Improves Public Safety

Potential Applications:

-Military/Defense

-3D Printing Food

-Biomedical

-Electronics and Computer Hardware

TRL: 3

Intellectual Property:

Provisional-Patent, 2020-02-10, United States

Utility Patent, 2021-02-10, United States

Keywords: 3D Printing, Additive Manufacturing, Defense & Space, Electronic Devices, Electronics, Food Industry, Food Production, Food Safety, Implants,

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Category

Aerospace & Defense/Defense Electronics & Surveillance Technologies

Digital Health & Medtech/Implantable Medical Devices

Chemicals & Advanced Materials/Materials Processing & Manufacturing Technologies

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Medical Implants, Military, Munition Systems, Public Safety