



3D Printing Technology Overview

You might have heard all kinds of different terms for 3D printing technologies like FDM, PolyJet, P3, SAF, and SLA.

Here's a breakdown of what each term means and some of the most popular uses.





Fused Deposition Modeling (FDM)

FDM technology builds durable parts with large build envelopes, making it ideal for prototyping and testing. It ensures uninterrupted builds for high-quality results.

Applications: Prototyping, manufacturing aids, end-use production parts

Example printers: Stratasys F170, F3300, Fortus 450MC

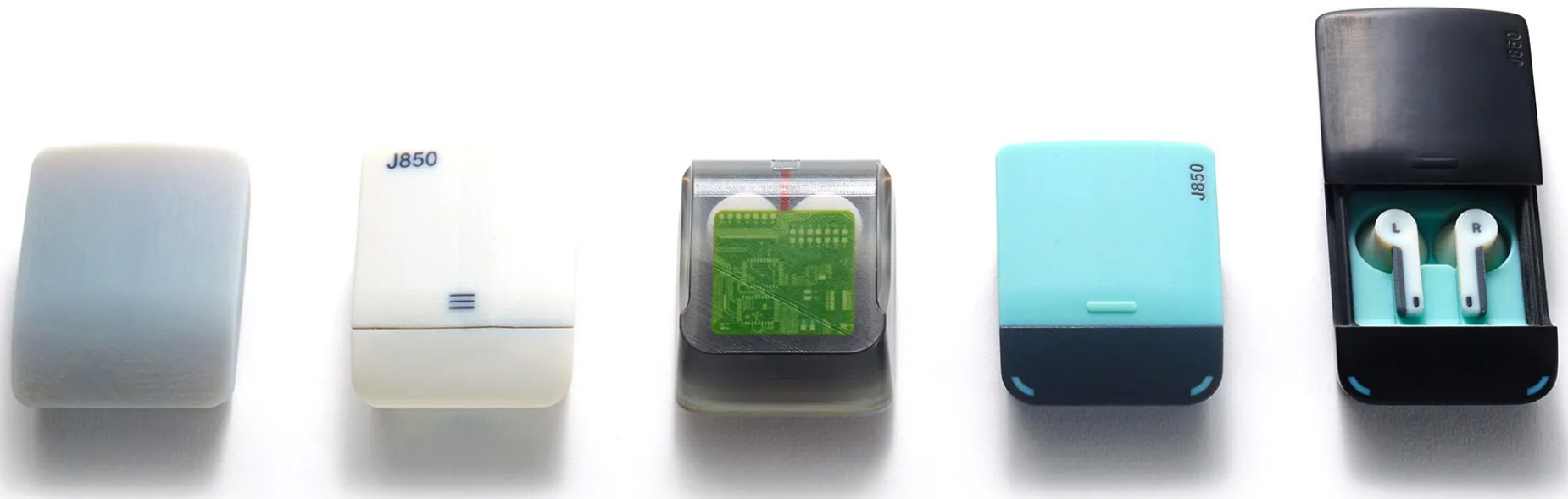
FDM

PolyJet

P3

SAF

SLA



PolyJet

PolyJet technology creates realistic models with multi-material and full-color capabilities. It's perfect for producing high-quantity runs with detailed and vibrant prints

Applications: Full-color prints, Fashion, medical, and dental

Example printers: Stratasys J35 Pro, J5 Series, J850 Series

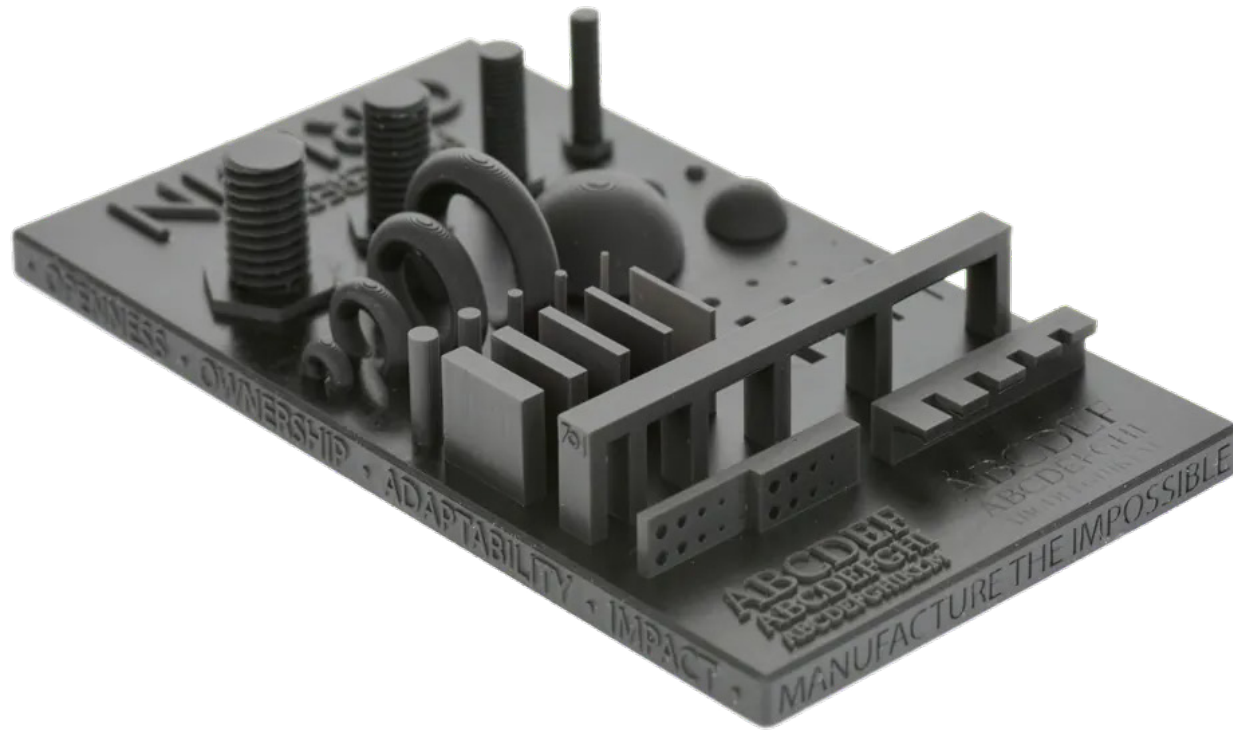
FDM

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Programmable PhotoPolymerization (P3)

P3 technology uses high-performance resins to produce parts with exceptional repeatability and high output. It's suitable for applications requiring precise and consistent results

Applications: Tooling, inserts, molds, jigs & fixtures

Example printers: Stratasys Origin One, Origin Two

FDM

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P3

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SLA



Selective Absorption Fusion (SAF)

SAF technology delivers high-demand output with excellent accuracy and repeatability. It helps cut hidden costs and is ideal for large-scale production

Applications: Robust bulky parts, quality finished and durable parts, parts with moving components

Example printer: Stratasys H350

FDM

PolyJet

P3

SAF

SLA



Stereolithography (SLA)

SLA technology uses UV curing to create high-quality parts with open-source material capability. It features 3-axis dynamic scanning for precise and detailed prints

Applications: Rapid prototyping, rapid tooling, master patterns

Example printer: Stratasys Neo

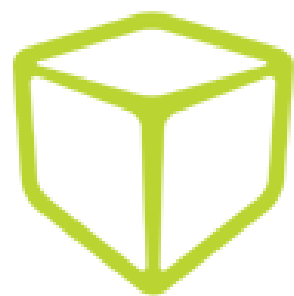
FDM

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