

# Aerospace 3D Printing Market 2024 Trends: Expected to Grow at a CAGR of 18.4% by 2030, Claims AMR

The global aerospace 3D printing market is projected to reach \$6.80 billion by 2030, registering a CAGR of 18.4% from 2021 to 2030.

WILMINGTON, DE, UNITED STATES, October 22, 2024 /EINPresswire.com/ -- According to the



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Allied Market Research

report, the global <u>aerospace 3D printing</u> industry was estimated at \$1.38 billion in 2020, and is anticipated to hit \$6.80 billion by 2030, registering a CAGR of 18.4% from 2021 to 2030.

3D printing, also referred to as additive manufacturing, is a process of creating a layer-by-layer three-dimensional object using computer-aided design (CAD) models. Unlike conventional manufacturing techniques, the 3D printing process generates less waste and higher accuracy components. The 3D printing technology was primarily

used for rapid prototyping and concept generation, however, with advancements in material technology, the process has proliferated its scope of operations to manufacturing complex components.

The design freedom gained by engineers to print a complex component in one piece with the possibility to replace several small joints and machined parts has generated unprecedented business opportunities within the aerospace vertical. The ability to print parts in small volumes as and when needed without incurring any additional capital expense due to lower volume notably impacts the supply chain dynamics of the market. Operations such as replacing a small damaged or outdated component while keeping the system intact will soon become a common practice in coming years.

Key Features of the Aerospace 3D Printing Market:

Materials Used: Metals (such as titanium, aluminum alloys), polymers, and composites.

# Applications:

Aircraft parts and components (engine components, air ducts, brackets).

Spacecraft parts.

UAV (Unmanned Aerial Vehicle) manufacturing.

## Benefits:

Weight reduction, leading to better fuel efficiency.

Shorter production cycles.

Lower manufacturing costs for custom, low-volume components.

Enhanced design freedom and complexity.

# Challenges:

Certification and standardization issues.

High initial investment in 3D printing equipment.

Material limitations in terms of mechanical properties.

Major Players in the Aerospace 3D Printing Market:

Stratasys Ltd.

3D Systems Corporation

Materialise NV

General Electric (GE Additive)

**EOS GmbH** 

Renishaw PLC

SLM Solutions Group AG

ExOne

## Market Growth Drivers:

Increasing demand for lightweight and fuel-efficient aircraft.

Adoption of 3D printing for rapid prototyping and production in space exploration.

Rising investment in new aerospace technologies, including electric aircraft and supersonic jets.

North America held the major share in 2020-

Based on region, the market across North America accounted for the major share in 2020, contributing to more than one-third of the global aerospace 3D printing market. Developing market with the established industry players boosts the market growth. Asia-Pacific, simultaneously, is expected to cite the fastest CAGR of 20.5% throughout the forecast period. Rising demand for aircrafts over the coming years and aggressive government initiatives to establish indigenous capabilities drive the market growth.

The binder jetting segment to maintain the dominant share-

Based on printing technology, the binder jetting segment held the major share in 2020, generating more than one-fourth of the global aerospace 3D printing market. The same segment is also projected to cite the fastest CAGR of 19.9% during the forecast period, owing to its vast scope of application in the aviation and space industry.

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