+357 96 030922
info@marketpublishers.com

Laser Automation Market Forecasts to 2030 – Global Analysis By Type (Laser Cutting, Laser Marking, Laser Welding, Laser Drilling, Laser Ablation, Precision Laser Processing Systems, 3D Printing and Other Types), Laser Type, Application and By Geography

https://marketpublishers.com/r/L2F8AC41DDFAEN.html
Date: February 2025
Pages: 150
Price: US$ 4,150.00 (Single User License)
ID: L2F8AC41DDFAEN

Abstracts

According to Stratistics MRC, the Global Laser Automation Market is accounted for $17067.82 million in 2024 and is expected to reach $24486.42 million by 2030 growing at a CAGR of 6.2% during the forecast period. Laser automation refers to the use of laser technology in automated systems for precision manufacturing, processing, and material handling. It involves integrating lasers with robotics and control systems to perform tasks like cutting, welding, marking, engraving, and drilling with high accuracy and speed. This technology enhances efficiency, reduces human error, and improves safety in industries such as automotive, aerospace, electronics, and healthcare. Laser automation offers a cost-effective, scalable solution for various applications requiring fine precision and high repeatability.

According to UN statistics, global manufacturing output is projected to grow at an annual rate of 3-4% between 2020-2023.

Market Dynamics:

Driver:

Increasing demand for precision manufacturing

Laser technologies are becoming indispensable for jobs demanding precise accuracy, such cutting, welding, and marking, as companies strive for increased efficiency and

+357 96 030922
info@marketpublishers.com

quality. Laser automation is especially advantageous to the electronics, automotive, and aerospace industries because it can create intricate structures and lightweight parts with little material waste. Furthermore, improvements in laser technology speed up processing and lower operating costs, which makes it a desirable option for producers looking to maximize output while maintaining strict quality requirements. As more and more companies embrace smart manufacturing techniques, this trend is anticipated to continue.

Restraint:

Laser system downtime and maintenance

Laser systems are very effective, but because of their complexity, they need to be maintained frequently to function at their best. Production schedule disruptions brought on by malfunctions or the need to repair parts might result in delays and higher operating expenses. The accuracy and durability of laser systems depend on routine maintenance, which includes cleaning and calibration. These upkeep tasks, however, can be expensive and time-consuming. Furthermore, prolonged downtime can lower overall productivity, particularly in high-demand sectors where uninterrupted operation is essential, like electronics or the automotive industry. To reduce interruptions and preserve profitability, companies must so carefully arrange their maintenance plans.

Opportunity:

Growing demand for customization

Laser technologies provide the adaptability required for customized manufacturing processes as companies work to satisfy particular customer preferences and improve product distinctiveness. Precision design and manufacturing changes are made possible by laser automation, which enables producers to create distinctive goods quickly without sacrificing quality. This feature is especially helpful in industries where customized solutions are becoming more and more sought after, such automotive, electronics, and medical devices. The market is anticipated to grow further due to innovation and developments in laser technology as companies use laser automation to meet these customisation requests.

Threat:

High initial investment costs

+357 96 030922
info@marketpublishers.com

The broad adoption of laser automation technologies can be severely hampered by high initial investment costs, especially for small and medium-sized businesses (SMEs). For companies with limited funding, the high upfront costs of laser equipment, related infrastructure, and integration with current systems can be a significant obstacle. Larger businesses with more financial resources may benefit from this high barrier to entry, which can reduce market competition. Furthermore, laser automation systems may take a while to yield a return on investment (ROI), which deters investment from companies looking for rapid financial returns.

Covid-19 Impact

The COVID-19 pandemic has had a mixed impact on the laser automation market. While some sectors faced disruptions due to supply chain challenges and temporary shutdowns, the crisis also accelerated the adoption of automation technologies as companies sought to enhance efficiency and reduce reliance on manual labor. This shift is particularly evident in industries like automotive and healthcare, where precision manufacturing became critical. As businesses adapt to new operational realities, the demand for laser automation solutions is expected to grow, positioning the market for recovery and expansion in the post-pandemic landscape.

The laser drilling segment is expected to be the largest during the forecast period

The laser drilling segment is estimated to be the largest, due to the increasing need for precision manufacturing and the superior performance of laser technologies compared to traditional methods. Industries such as aerospace, automotive, and electronics are adopting laser drilling for its ability to create intricate designs and micro-holes with minimal thermal impact, enhancing product quality and durability. Additionally, advancements in laser technology, including the development of high-power fiber lasers, are expanding application possibilities.

The aerospace and defense segment is expected to have the highest CAGR during the forecast period

The aerospace and defense segment is anticipated to witness the highest CAGR during the forecast period. As nations prioritize national security, there is a growing demand for high-energy laser systems capable of countering modern threats, such as drones and missiles. The integration of laser systems into various platforms, including UAVs and naval vessels, enhances operational capabilities while reducing costs. Additionally,

+357 96 030922
info@marketpublishers.com

advancements in miniaturization and the development of compact laser solutions are enabling more versatile applications, further driving growth in this sector as defense forces seek efficient and effective solutions.

Region with largest share:

Asia Pacific is expected to have the largest market share during the forecast period due to rapid industrialization, especially in countries like China, Japan, and South Korea, where manufacturing automation is increasingly adopted. The need for high-precision manufacturing in industries such as automotive, electronics, and aerospace drives the expansion of the market. Additionally, the region benefits from cost-effective production, advancements in laser technologies, and government initiatives promoting automation. The rise of smart manufacturing and Industry 4.0 further accelerates the adoption of laser automation across various industries in the region.

Region with highest CAGR:

During the forecast period, the Europe region is anticipated to register the highest CAGR, owing to the strong presence of advanced manufacturing industries, particularly in automotive, aerospace, and electronics. Europe’s focus on high-quality, precision manufacturing and sustainable production methods contribute to the adoption of laser automation. Additionally, the region's emphasis on Industry 4.0 and digital transformation, alongside government support for innovation in automation technologies, fosters growth. Europe's robust research and development landscape further drives the integration of laser technologies into manufacturing processes.

Key players in the market

Some of the key players profiled in the Laser Automation Market include TRUMPF GmbH + Co. KG, Coherent, Inc., IPG Photonics Corporation, Han's Laser Technology Industry Group Co., Ltd., FANUC Corporation, Amada Co., Ltd., Laserline GmbH, Mitsubishi Electric Corporation, Lumentum Operations LLC, Prima Industrie S.p.A., Keyence Corporation, Sisma S.p.A., JPT Electronics Co., Ltd., Epilog Laser, Bystronic Laser AG, Mazak Optonics Corporation, Trotec Laser GmbH, KUKA AG, and Beckhoff Automation GmbH & Co. KG.

Key Developments:

In December 2024, Coherent Corp. a global leader in laser technology, announced the

+357 96 030922
info@marketpublishers.com

launch of its latest generation adjustable ring mode fiber laser ARM FL. This next generation platform, featuring a new advanced controller, offers all the functions of its predecessor while reducing the volume and footprint by 50%.

In December 2024, Mitsubishi Electric Mobility Corporation announced that it has entered into a capital and business partnership with Seeing Machines Ltd. a leading Australian DMS software provider, to expand its Driver Monitoring System business, which supports safe driving by detecting driver distraction and drowsiness.

In November 2024, TRUMPF has expanded its aluminum portfolio for additive manufacturing. 'The new aluminum alloys can be used in numerous 3D printing applications, from prototyping to series production.

Types Covered:

- Laser Cutting
- Laser Marking
- Laser Welding
- Laser Drilling
- Laser Ablation
- Precision Laser Processing Systems
- 3D Printing
- Other Types

Laser Types Covered:

- Fiber Lasers
- CO2 Lasers
- Solid-State Lasers

+357 96 030922
info@marketpublishers.com

- Diode Lasers
- Other Laser Types

Applications Covered:

- Manufacturing and Production
- Medical and Healthcare
- Automotive
- Electronics and Semiconductors
- Aerospace and Defense
- Packaging
- Oil & Gas
- Machine Industry
- Other Applications

Regions Covered:

- North America
  - US
  - Canada
  - Mexico
- Europe

+357 96 030922
info@marketpublishers.com

- Germany
- UK
- Italy
- France
- Spain
- Rest of Europe

Asia Pacific

- Japan
- China
- India
- Australia
- New Zealand
- South Korea
- Rest of Asia Pacific

South America

- Argentina
- Brazil
- Chile
- Rest of South America

Middle East & Africa

+357 96 030922
info@marketpublishers.com

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:
- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2022, 2023, 2024, 2026, and 2030
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

+357 96 030922
info@marketpublishers.com

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

List Of Tables

LIST OF TABLES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Laser Automation Market Forecasts to 2030 – Global Analysis By Type (Laser Cutting, Laser Marking, Laser Welding, Laser Drilling, Laser Ablation, Precision Laser Processing Systems, 3D Printing and Other Types), Laser Type, Application and By Geography

Product link: https://marketpublishers.com/r/L2F8AC41DDFAEN.html

Price: US$ 4,150.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/L2F8AC41DDFAEN.html