

# World *Robotics*

Industrial Robots

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2022



Statistics, Market Analysis, Forecasts and Case Studies

# World Robotics

## Industrial Robots

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### **World Robotics 2022 – Industrial Robots**

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The robot statistics are based on consolidated world data reported by robot suppliers as well as on the statistics and support of the national robotics associations of North America (A3), Spain (AER), People's Republic of China (CRIA), Japan (JARA), Republic of Korea (KAR), Italy (SIRI), Sweden (SWIRA), and Chinese Taipei (TAIROA).

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Assisting in statistics evaluation, text and charts processing: Nina Kutzbach, IFR

We express our most sincere gratitude to all partners!

Dr. Christopher Müller  
Director  
IFR Statistical Department

Tel: +49 69 66 03-11 91  
E-Mail: [statistics@ifr.org](mailto:statistics@ifr.org)  
Internet: <http://www.worldrobotics.org>

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## Foreword

By: Marcus Mead, Chair IFR Industrial Robot Suppliers Committee



Dear Reader,

Dear Robotics Community,

As we consider the present global environment at the mid-point of 2022, it's increasingly evident that we continue to witness an unprecedented series of irrepressible events. Although now normalized in most global regions, the effects of the coronavirus pandemic continue to persist in compromising global supply chains, subsequently prolonging the scarcity of critical components and further exacerbating the effects of the global labour shortage. In addition, the war in Ukraine has caused heightened levels of global geopolitical tension, resulting in soaring inflation and an imminent energy crisis of potentially immense proportion.

With the effects of these global instabilities set to continue for the mid-term period, it is not only imperative we continue to work collectively as a global community to avoid an economic downturn, but essential that industries and business look towards more sustainable and agile operational strategies to ensure a wide range of risks are mitigated and the surge of demand witnessed in 2021 can be successfully fulfilled.

The industry statistics presented in the following World Robotics 2022 Industrial Robotics report provide the strongest indication to date that robotics as a technology is making a fundamental contribution towards supporting industries and business to immunise their core production processes against the outcomes of each global crisis we experience. Despite all global headwinds and the continued presence of the pandemic, a record 517,385 new robots were installed across all industries in 2021, a significant 31% higher than in 2020, with the electrical / electronics, automotive and metal industries continuing to be leading adopters of the technology. Global robot stocks reached almost 3.5 million units, 15% higher than in 2020, the associated value of installations reached an estimated \$15.7 billion with the global average manufacturing density 126 robots per 10,000 employees.

These are highly impressive results and a reflection of several contributing factors. Naturally we have witnessed a rebound effect from the global contraction of 2019 and 2020, but also influential is the impact of the ever-increasing research and development efforts of all robot manufacturers who are leveraging digitalization and AI to advance robotic functional capability to be more widely deployable into non-industrial applications such as warehousing, logistics and medical. Recent advances in both traditional and collaborative industrial robotics demonstrate that major advances in user requirements have now been achieved, including much improved ease of use, intuitive and smart programming capabilities and improved software compatibility. These new features are

attracting many new users to robotics from small enterprise to global OEMs. Industries characterized by high mix, low volume production can now take advantage of robots to achieve the desired levels of agility and flexibility in manufacturing. Complex tasks can now be managed in coexistence with human workers to achieve elevated levels of productivity.

As we look forwards to 2022 and 2023, we recognize that being able to respond to and successful navigate the many challenges that will influence businesses and industries will be imperative to sustain economic growth. We believe strongly that robotics will play a fundamental role in securing a manufacturer's ability to meet the changing demands of industry and technology and promote a strong competitive advantage to those who begin the journey to automate with robots.



Marcus Mead

Chair IFR Industrial Robot Suppliers Committee