FREE PREVIEW

2022

Market analysis of robot and automation firms in the USA

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Connecting the World of Robots

GAIN&CO

A3 ASSOCIATION FOR ADVANCING AUTOMATION

Executive summary

Robot sales in the USA set a record in 2021. With automation picking up speed across the country, HowToRobot.com & Gain & Co map the robotic market to get a better picture of what the supply and demand looks like.

This report is the first robot market report covering the USA. On the supply side, it covers statistics on the many robot suppliers based in the USA. and a comprehensive list of company profiles with details on every robotic manufacturer, integrator, distributor, sub-component supplier and advisor uncovered in the research from HowToRobot and Gain & Co. On the demand side, the report includes aggregated North American market statistics (both orders and shipments) from 2021 compared to previous years, provided by the Association for Advancing Automation (A3).

Overall, our findings show that the USA is a fast-growing market for robotics – of largely foreign-made robots being integrated by local companies. Of the 1187 robot and automation suppliers identified in the USA, 69 % of them are system integrators – meaning companies that sell integrated automation solutions with robots (but typically do not manufacture the robot themselves). This is a relatively high share of integrators compared to other countries studied by HowToRobot. Only 12 % of the suppliers based in the USA manufacture robots.

When we look at which robot brands most suppliers work with, the numbers show similar trends. Of the top 15 brands analyzed, none of them are from the USA (though the two Danish robot firms Universal Robots and MiR are both owned today by US-based Teradyne). Japanese-based Fanuc is dominating the market with almost two-thirds of all suppliers in the USA carrying the brand. The second place goes to the Swedish-Swiss corporation ABB being represented by 30 % of suppliers in the USA. The U.S. has a unique situation with one company (Fanuc) dominating the market to such an extent, where other markets are usually more equally divided among the top four brands.

Among other noteworthy observations you will find in this report:

- Most robot suppliers are located in the Midwest region (47 % of the 1906 supplier offices in the USA are based here).
- Despite other industries picking up on automation, the Metal & Machinery and Automotive sectors remain the primary focus of most US-based robot suppliers with 50 % and 46 % of suppliers serving these two sectors respectively.
- The most popular specializations among robot suppliers in the USA are automation of handling & picking (69 % of suppliers), assembly (45 %), inspection & quality assurance (32 %), machine tending (29 %), and welding (27 %).

On the sales side, the year 2021 brought about the highest sales number ever recorded in North America with 39,708 robots sold at a value of $2 billion – an increase of 28 % over 2020. The growth is fueled by robot adoption becoming more mainstream as new sectors start picking up on automation. 2021 was also the year when robot orders from outside of the automotive industry overtook automotive, which traditionally has been the largest purchaser of robots. The Metals industry, for example, saw a dramatic 91 % increase in orders from 2020. The most popular robot applications among buyers are still concentrated on a few key areas, namely handling & machine tending (60 % of orders in 2021) and welding & soldering (30 %).

In the remainder of this report, you can dig deeper into these numbers and many others, and learn more about each of the many robot suppliers in the USA.

What will you find in this report:

- Robot Sales Statistics 2021
- A summary of the suppliers in the USA:
  - What type of suppliers can you find?
  - How large are the companies?
  - In what regions are they located?
  - What customer industries do they focus on?
  - What robot brands are used by most suppliers?
  - What solution types are offered by most suppliers?
- Background information about the USA
- 1906 company profiles – grouped in regions
  1187 unique companies spread over 1906 locations

The following information can be found for each company:

- Basic company data, including location and year of establishment
- Contact information
- Type of supplier
- Number of employees
- Use cases for their products
- List of robot brands they work with
- Names of reference customers
- Industries of their customers

Please note that the complete data is not available for all companies.

Example of company profile

Name					
Bastian Solutions					
Address				**Postal Code**	**City**
10585 N. Meridian St., Suite 301				46290	Carmel
Website			**Email**		**Telephone**
http://bastiansolutions.com			mkohler@bastiansolutions.com		+13144322224
Employees	**Established**	**Supplier Type**	**Brand**		
500-999	1952	Integrator			
Application			**Industry**		
Assembly, Logistics, Handling & Picking, Material Removing, Machine Tending, Other			Electronics & Technology, Food & Beverage, Logistics, Metal & Machinery, Robotics, Rubber & Plastic, Other		
Reference Customers					

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#HowToRobot CERTIFIED MEMBER

About the data

This report is based on data from www.HowToRobot.com, research conducted by Gain & Co, and aggregated North American market statistics from the Association for Advancing Automation. It is the annual market report, edition 2022 - with data collected until the 7th of March 2022. Please note that all market share and company-specific statistics in this report are based solely on data from www.HowToRobot.com and research conducted by Gain & Co. Only aggregated market statistics for North America were provided by the Association for Advancing Automation (A3).
The report covers suppliers of robots and automation categorized as manufacturers, integrators, distributors, sub-component suppliers and/or advisors – see page 6 for definitions. A company is defined as having a unique VAT ID/ DUNS number. For a full list of possible categories used in this report, see the appendix.

Disclaimer

 The information contained has been obtained from sources that HowToRobot.com believes to be reliable. HowToRobot.com disclaims all warranties as to the accuracy, completeness or adequacy of such information and shall have no liability for errors, omissions, or inadequacies in such information. Please note that any companies not found with an accessible website were not recognized within this report. Some companies may perform as multiple types of suppliers, (I.e., being both a manufacturer and a distributor). We are only listing each company as what we deem to be their primary function.

Table of contents

Value chain of the robot industry

Distributor

A company that distributes batches of robots or sub-components from manufacturers to wholesalers, such as integrators.

Integrator

A company that sells integrated automation solutions with robots, tailored to the need of the end-user, and often does the implementation.

Robot Manufacturer

Produces and sells products such as robot arms/ manipulators, mobile robots, or drones to distributors and integrators

Advisor

A company that provides end-users with consulting advice on robot technology and automation.

Robot Sales in North America

New Orders & Shipments for 2021
Statistics by A3 - Association for Advancing Automation

The following section contains North American robot sales statistics provided by A3 – Association for Advancing Automation. They include sales by North American robot suppliers to companies in North America only.

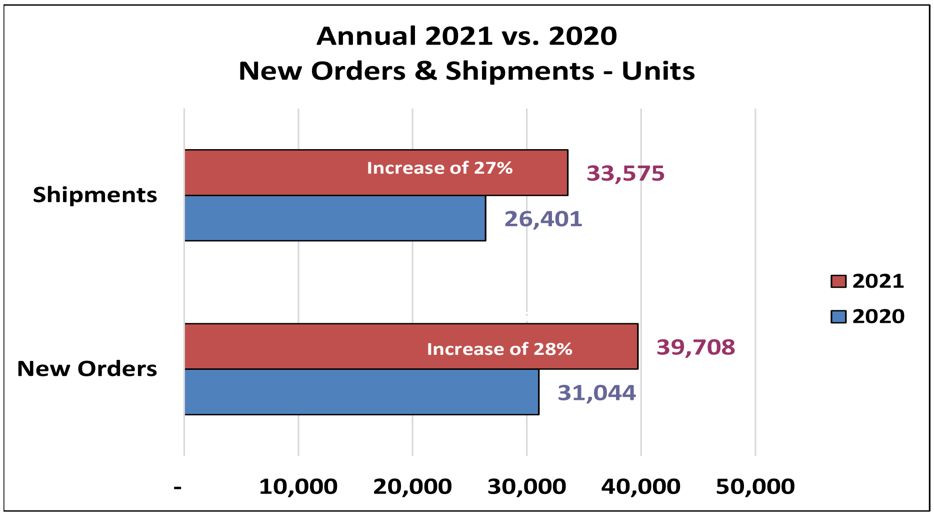
The numbers represent the industrial robot units ordered and shipped, plus the dollar value added to the total robot system. A3 does not include numbers that other countries reporting to the International Federation of Robotics might include as robot units; e.g., A3 does not include four-axis chip placement devices in standard electronic assembly machines.

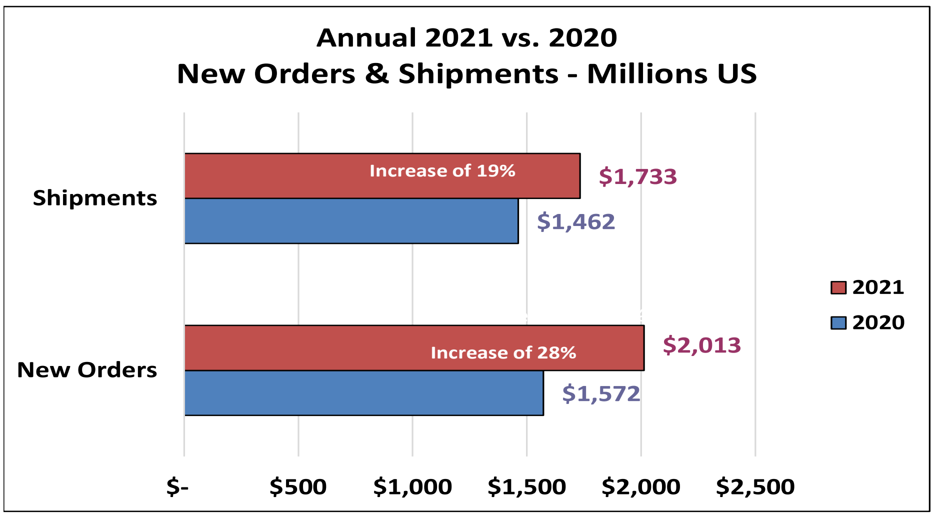
In this section:

- New Orders & Shipments – 2020-2021
- Annual Order Summary – 2017-2021
- New Orders & Shipments – by Industry
- Industry Growth Rates, 2021
- Automotive vs Non-Automotive Orders
- New Orders & Shipments – by Application

Please note: Only aggregated North American market statistics are included from A3 in this report.

New Orders & Shipments – 2020-2021

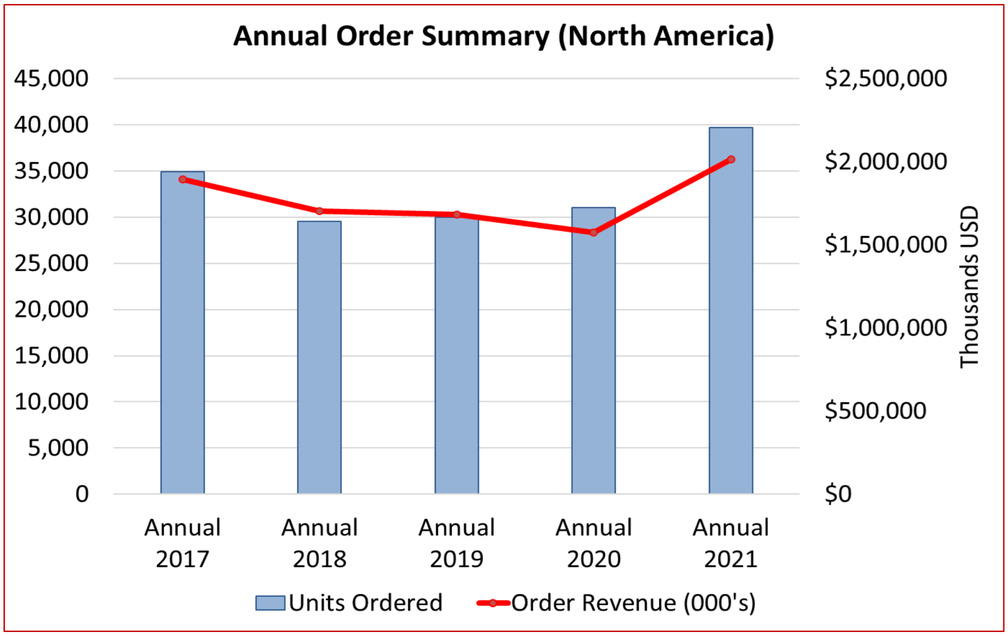




A3's annual data on the North American robotics market show that 2021 was the best year ever for the robotics market in North America. In total, 39,708 units valued at just over $2 billion were ordered in 2021, representing increases of 27% and 28% respectively over 2020. Record robot sales in the fourth quarter of the year — up 9% over Q4 2020 — demonstrated the strong momentum already realized through the previous nine months as more industries look to automation to increase productivity and alleviate ongoing labor shortages.

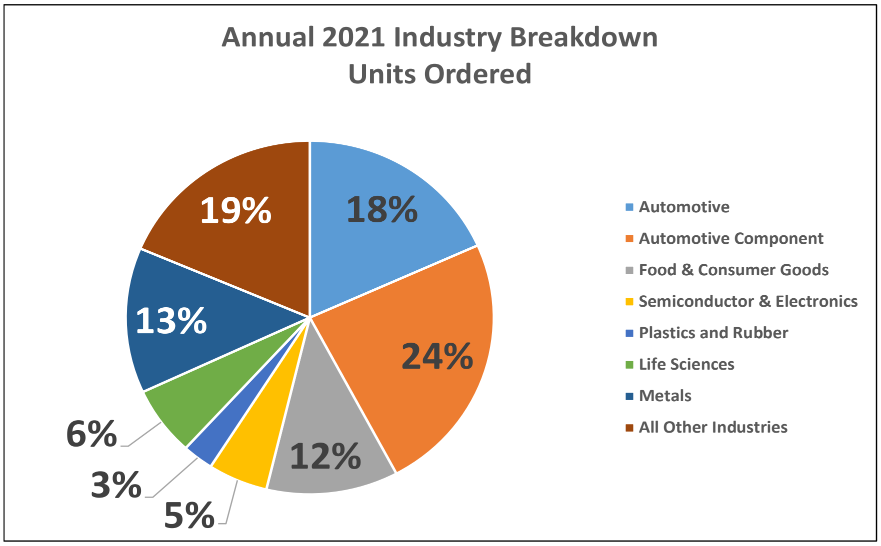
October through December of 2021 marked the highest and second-highest quarter on record for units and revenue, respectively. Non-automotive customers ordered 6,618 robots in Q4, which represents 61% of total units ordered. Automotive-related customers purchased 4,211 units, 39% of total orders.

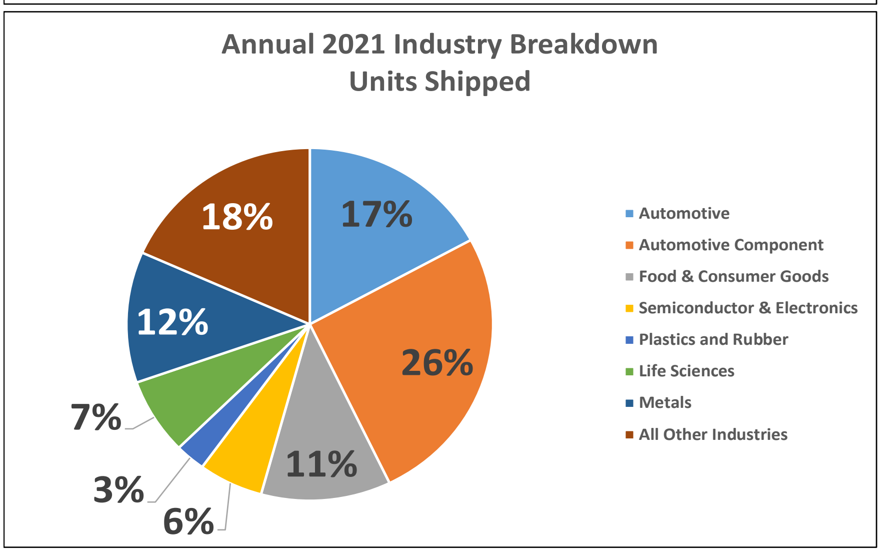
Annual Order Summary – 2017-2021



The number of robots sold in North America set a record in 2021. The previous record was in 2017, when 34,904 units valued at $1.9 billion were ordered. The results from 2021 exceeded the previous record by 14% and 6% for units ordered and revenue, respectively.

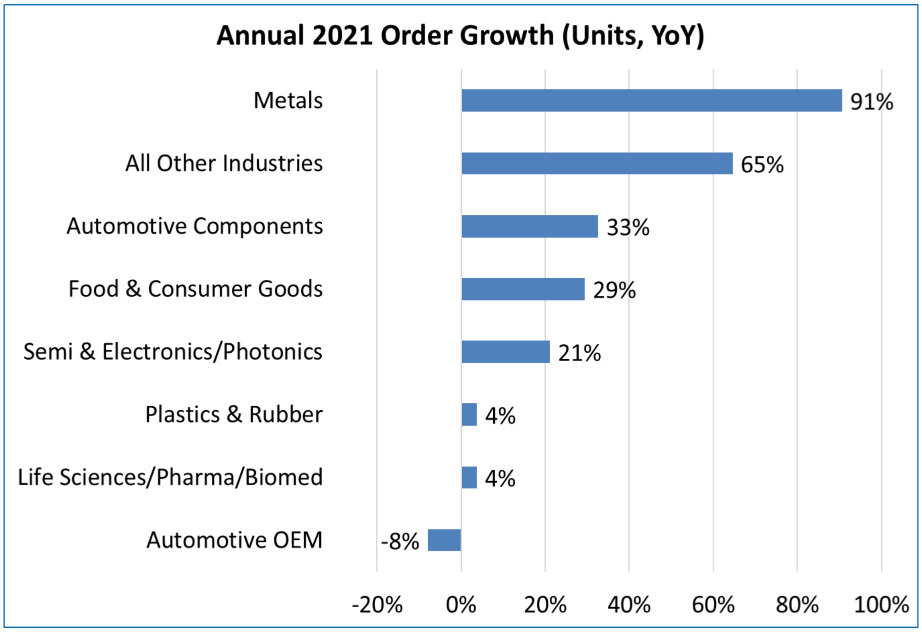
New Orders & Shipments – by Industry





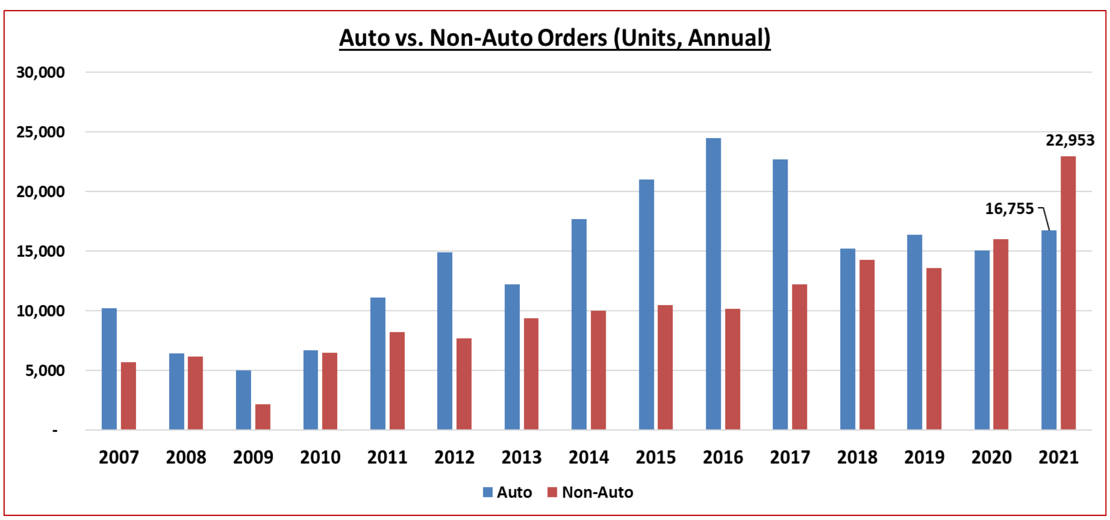
The graphs show how robot shipments and orders are distributed among each industry. Non-automotive orders now represent 58% of the North American total.

Industry Growth Rates, 2021



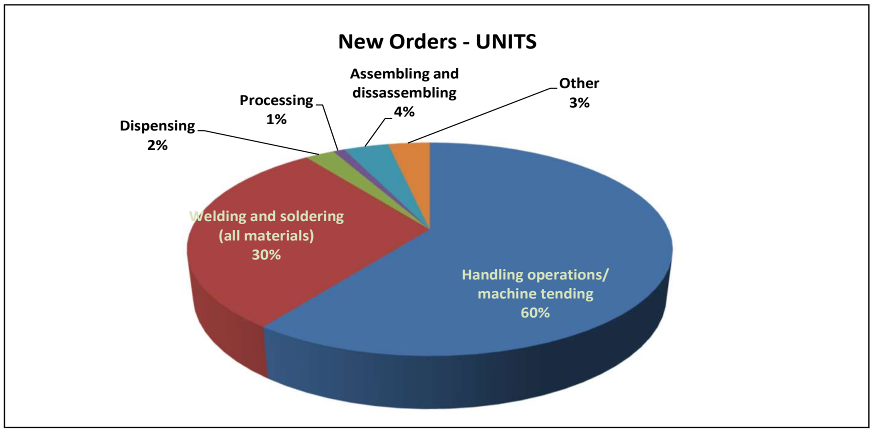
The graph shows how unit sales to specific industries have increased from 2020 to 2021. The growth in total robot sales in 2021 is propelled by a surge in non-automotive sectors.

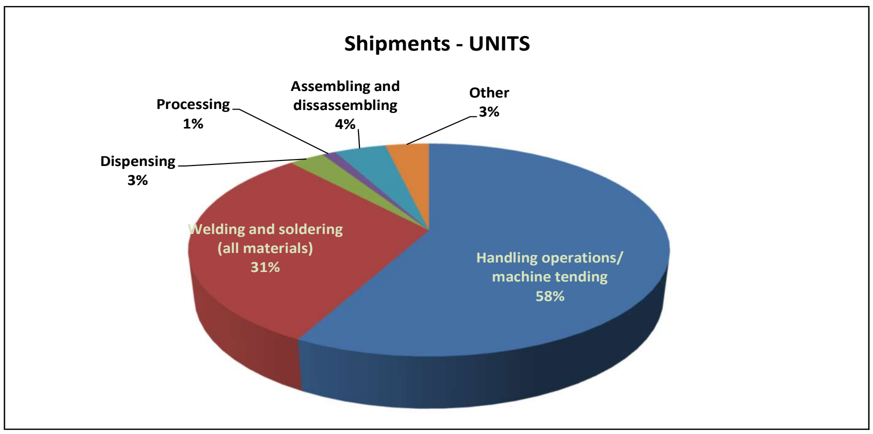
Automotive vs Non-Automotive Orders



The graphs provide an annualized picture of automotive vs. non-automotive related orders.
A major development has been the increase in robots ordered by non-automotive industry customers. This is a break in historical trends and shows how more and more companies are seeing the value in robotics and automation, in all industries.

New Orders & Shipments – by Application



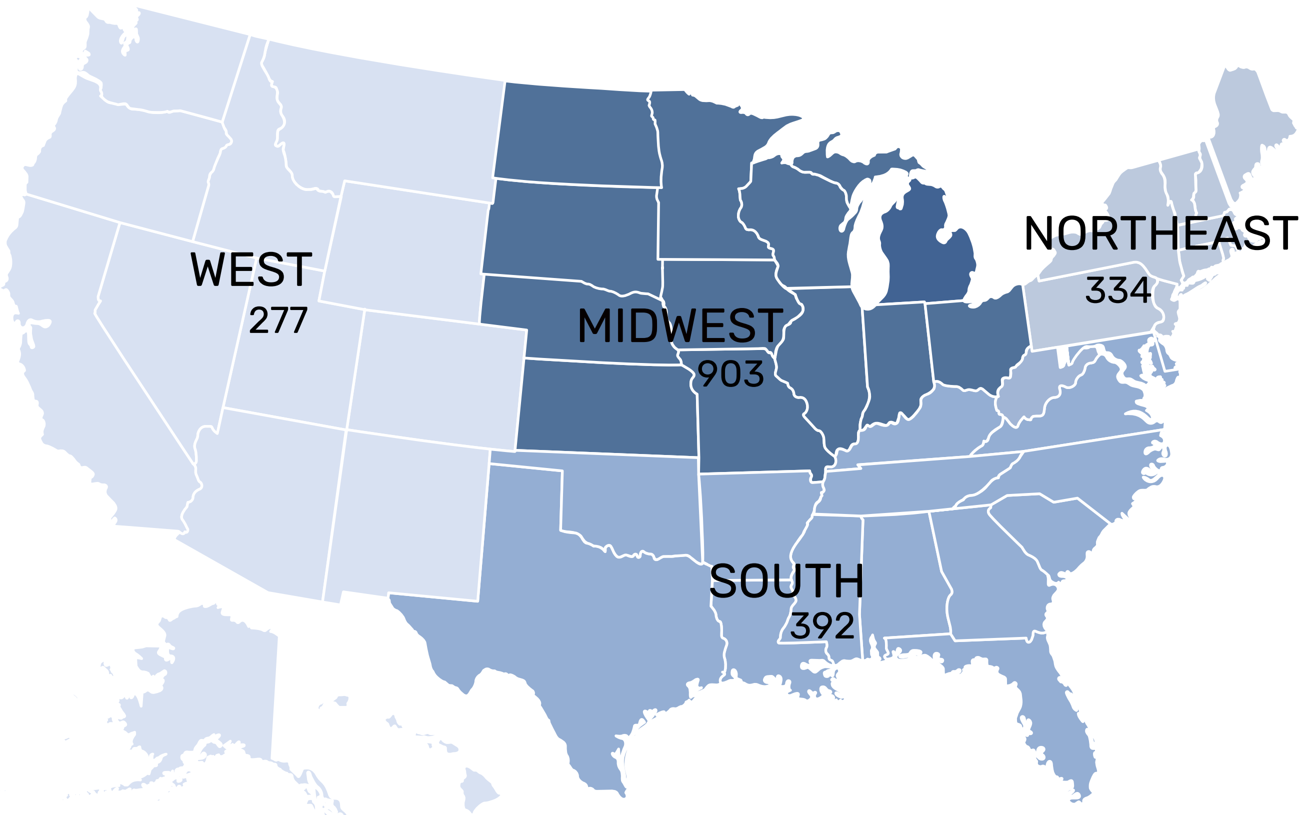


The graphs show the applications of the robots sold and shipped in 2021. Handling/ machine tending, welding and soldering robots dominate the market with a combined 90 % share of new orders and 89 % of new shipments.

Key US Robot Supplier Insights

We have identified 1187 automation firms in the USA divided into 1906 locations. In the next pages, you will find some graphs showing overall trends in the whole country.

Concentration of robot and automation suppliers across the USA

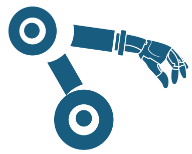


The figure shows the number of suppliers in each region, including local offices.
The distinction that places each state into a region is using the system that the US Census Bureau uses. Nearly half of the automation firms in the entire country are in the Midwest, possibly due to a large number of automotive and manufacturing companies in the area. The Northeast and Southern regions are next with a relatively similar number of firms. One thing to note about this, however, is that the Northeast region is considerably smaller than the South, meaning the Northeast is more densely populated with suppliers compared to the South.

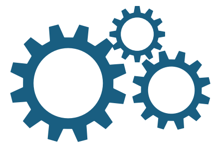
Types of suppliers represented in the USA

The suppliers analyzed in this report can be categorized as follows:

7 Advisors
(1 %)



137 Manufacturers of robotic solutions (12 %)
173 Sub-component suppliers (15 %)



822 Integrators
(69 %)

48 Distributors
(4 %)

Supplier distribution in each region

States	Advisors	Manufacturers	Integrators	Distributors	Sub-component suppliers	Total in the region
West	0.4%	17%	57%	9%	16%	277
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

See purchase options to get access to the data

Main brands in the USA

We analyzed over 60 well-established automation and robot brands, including industrial robots, mobile robots, components, and end-of-arm-tools. All of these are represented in this report.

Size of robot and automation firms

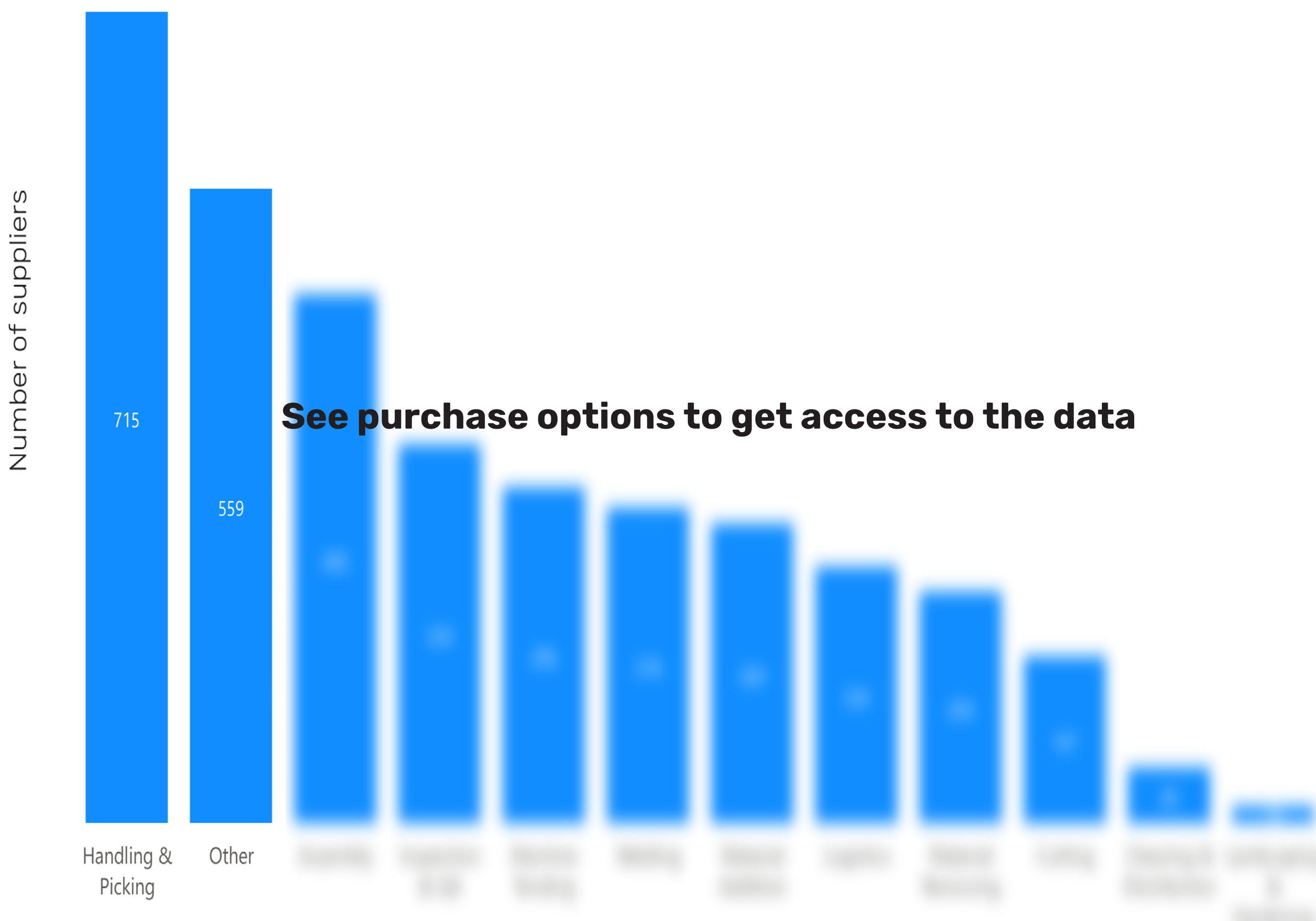
See purchase options to get access to the data

All robot and automation companies in the USA still serving today listed by their year of establishment

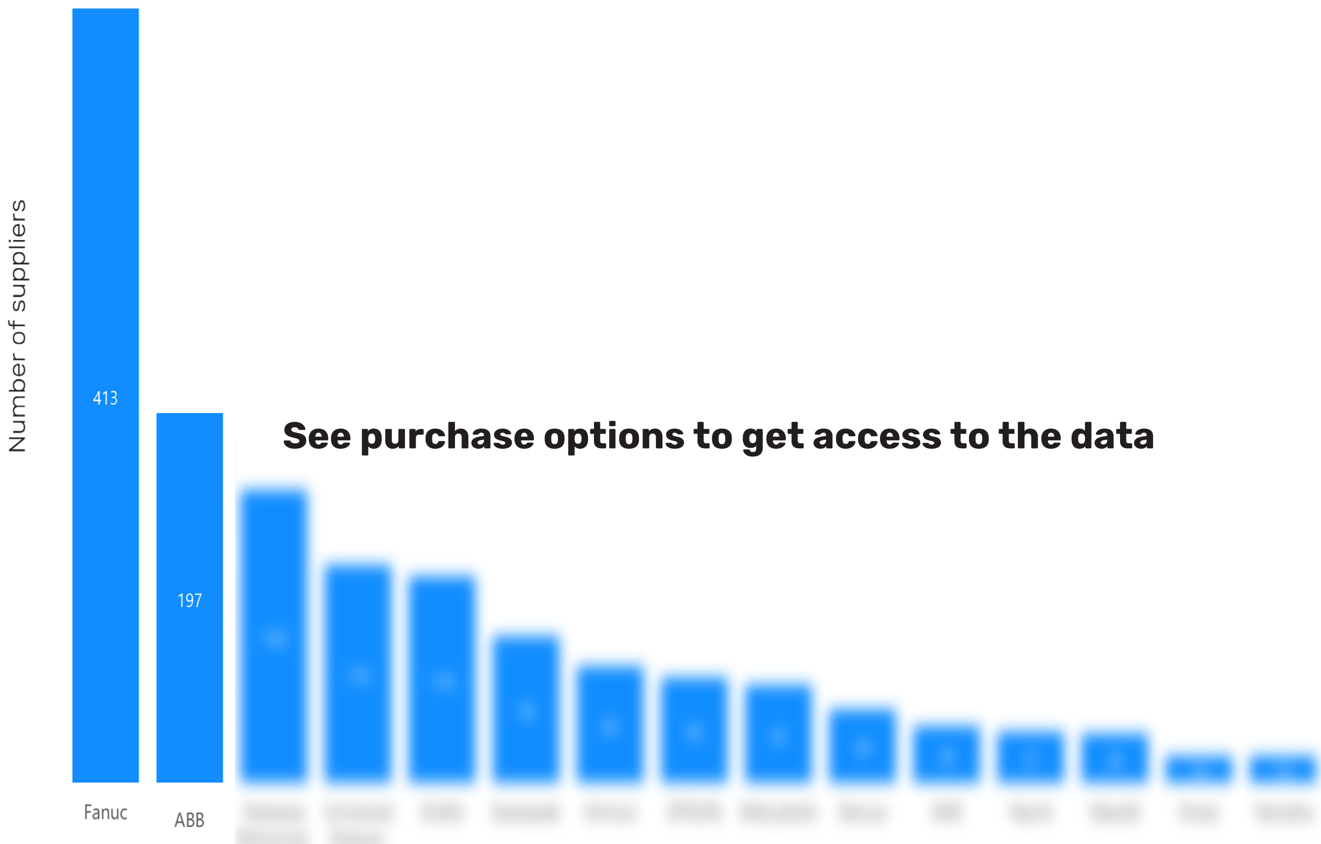
Robot solution types offered by most suppliers

The solutions offered by each supplier has been categorized into 12 overall categories.

A supplier can offer multiple solutions for different applications, even participate in several categories. Hence the sum of solutions available is far greater than the number of suppliers.



Top 15 robot brands used by most suppliers



Target industries

Industry	Suppliers	% of suppliers
Metal & Machinery	509	50%
Automotive	467	46%
Other	446	44%

See purchase options to get access to the data

Name			
3M			
Address		**Postal Code**	**City**
[illegible]		[illegible]	[illegible]
Website	**Email**		**Telephone**
[illegible]			[illegible]
Employees	**Established**	**Supplier Type**	**Brand**
[illegible]	[illegible]	[illegible]	
Application		**Industry**	
[illegible]		[illegible]	
Reference Customers			

Name			
4D Systems, LLC.			
Address		**Postal Code**	**City**
[illegible]		[illegible]	[illegible]
Website	**Email**		**Telephone**
[illegible]	[illegible]		[illegible]
Employees	**Established**	**Supplier Type**	**Brand**
[illegible]	[illegible]	[illegible]	
Application		**Industry**	
[illegible]		[illegible]	
Reference Customers			

Name			
966 Industries			
Address		**Postal Code**	**City**
[illegible]		[illegible]	[illegible]
Website	**Email**		**Telephone**
[illegible]			[illegible]
Employees	**Established**	**Supplier Type**	**Brand**
[illegible]	[illegible]	[illegible]	[illegible]
Application		**Industry**	
[illegible]		[illegible]	
Reference Customers			

What valuable things could you do if you knew every robot manufacturer, distributor and integrator in the USA?

We spent months collecting detailed information on all the robot and automation suppliers in the USA, so you don't have to!

7 Advisors
(1 %)

137 Manufacturers of robotic solutions (12 %)
173 Sub-component suppliers (15 %)

822 Integrators
(69 %)

48 Distributors
(4 %)

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