

FREE PREVIEW

2022

Market analysis of robot and automation firms in the USA



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								

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.

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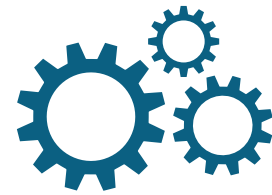
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Value chain of the robot industry



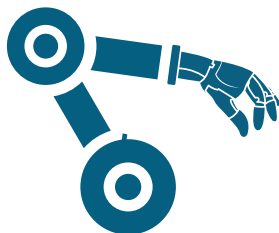
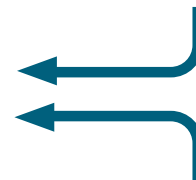
Distributor

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.

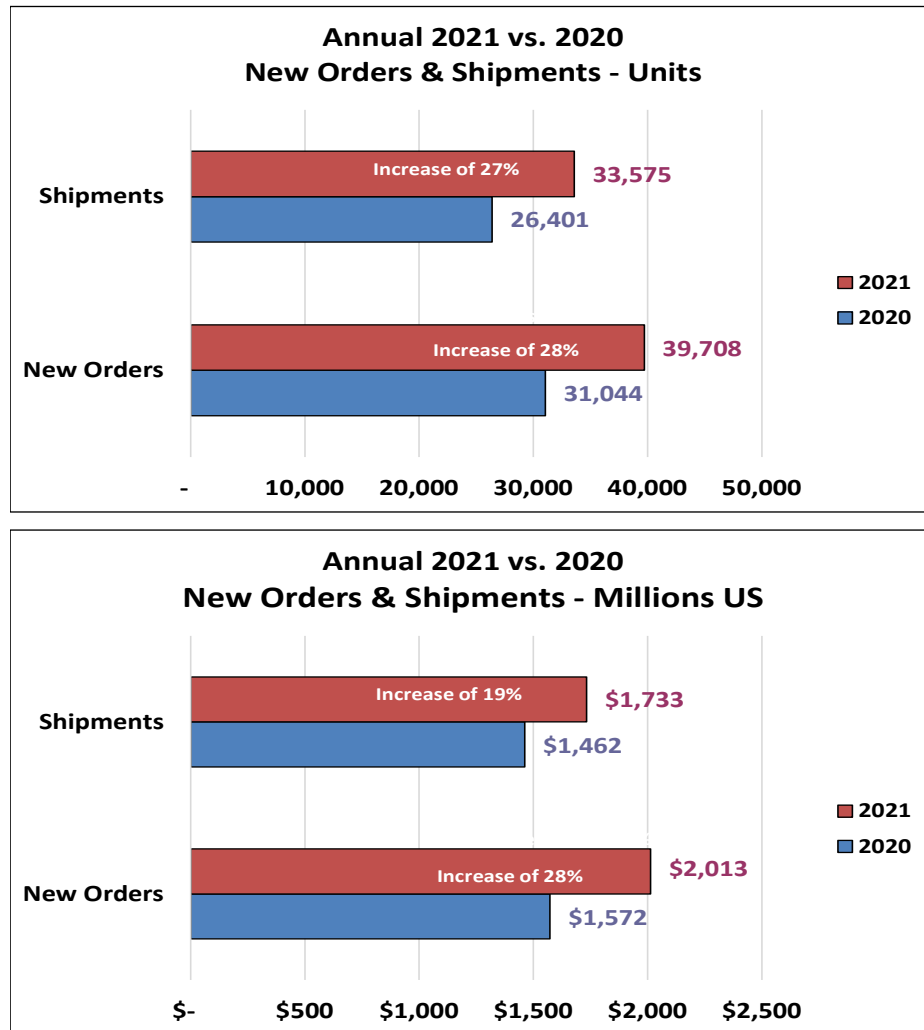
The numbers represent the industrial robot units ordered and shipped, plus the dollar value added to the total robot system. A3 does not include numbers that other countries reporting to the International Federation of Robotics might include as robot units; e.g., A3 does not include four-axis chip placement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

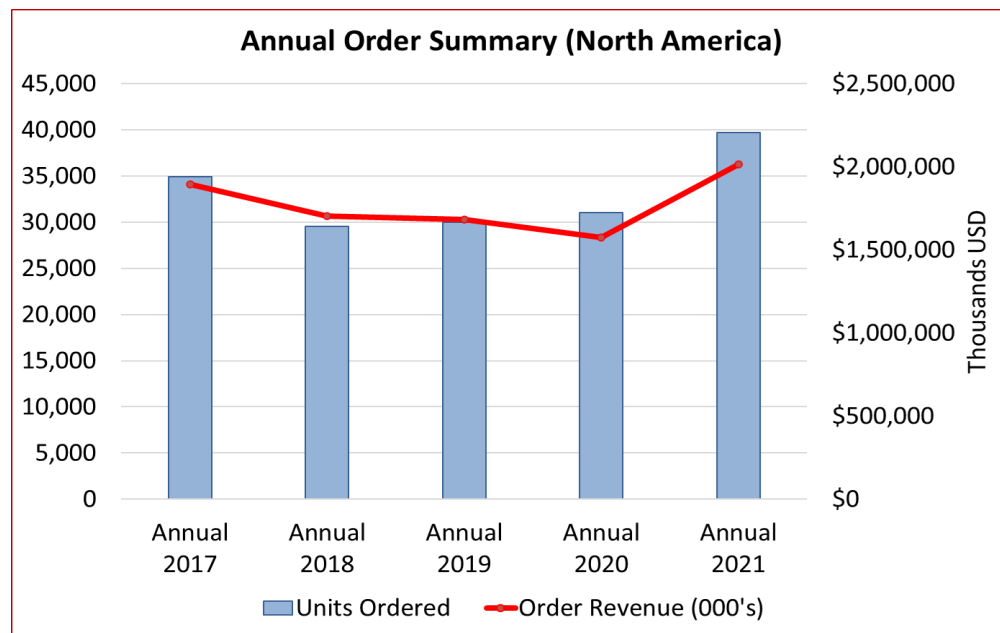
New Orders & Shipments – 2020-2021



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.

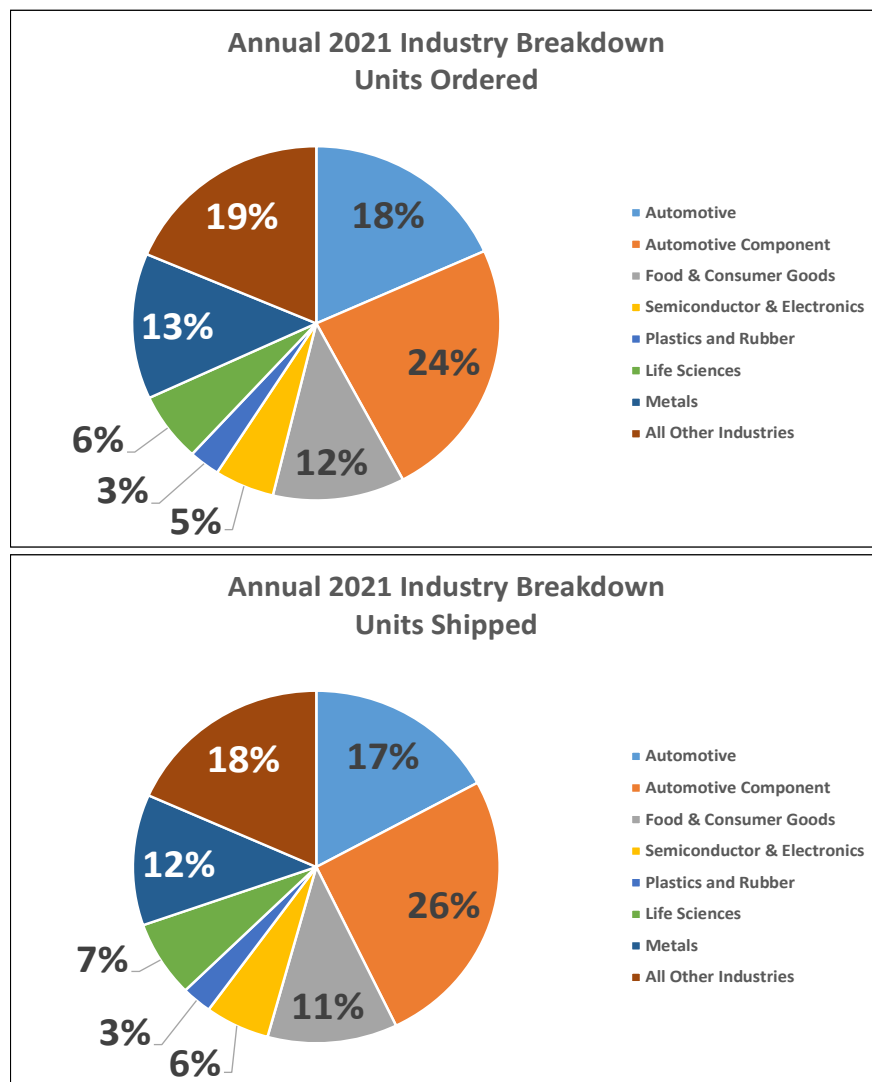
October through December of 2021 marked the highest and second-highest quarter on record for units and revenue, respectively. Non-automotive customers ordered 6,618 robots in Q4, which represents 61% of total units ordered. Automotive-related customers purchased 4,211 units, 39% of total orders.

Annual Order Summary – 2017-2021



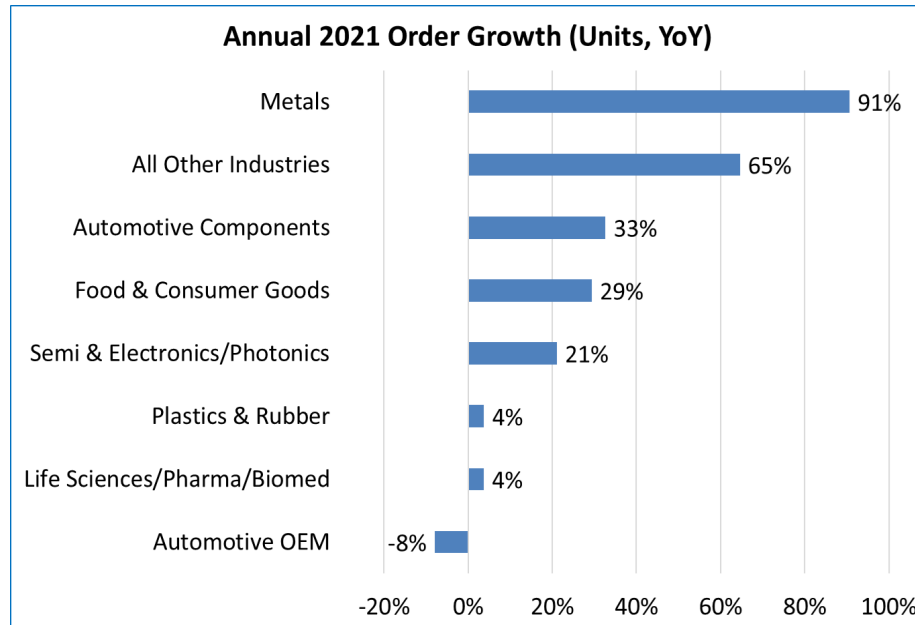
The number of robots sold in North America set a record in 2021. The previous record was in 2017, when 34,904 units valued at \$1.9 billion were ordered. The results from 2021 exceeded the previous record by 14% and 6% for units ordered and revenue, respectively.

New Orders & Shipments – by Industry



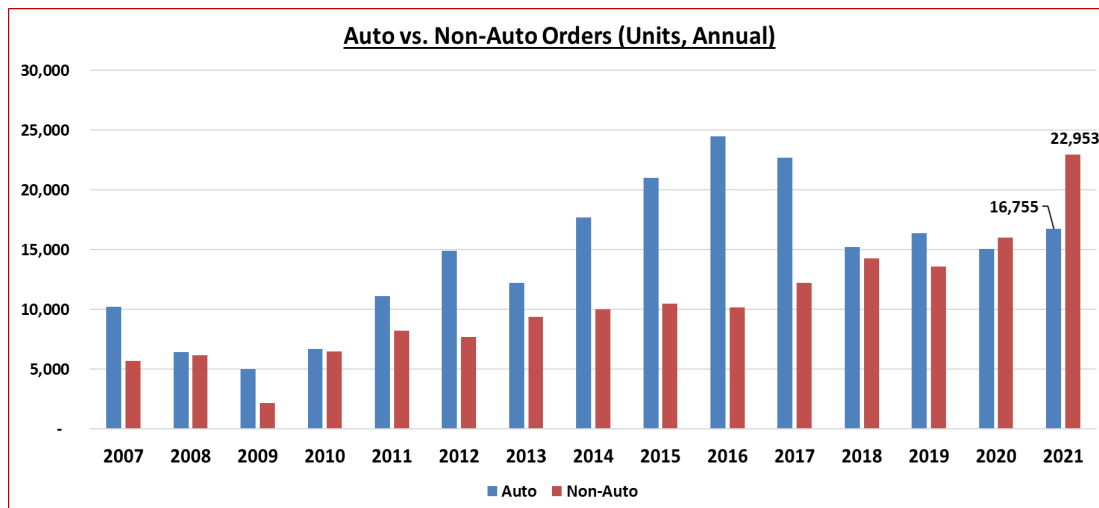
The graphs show how robot shipments and orders are distributed among each industry. Non-automotive orders now represent 58% of the North American total.

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.

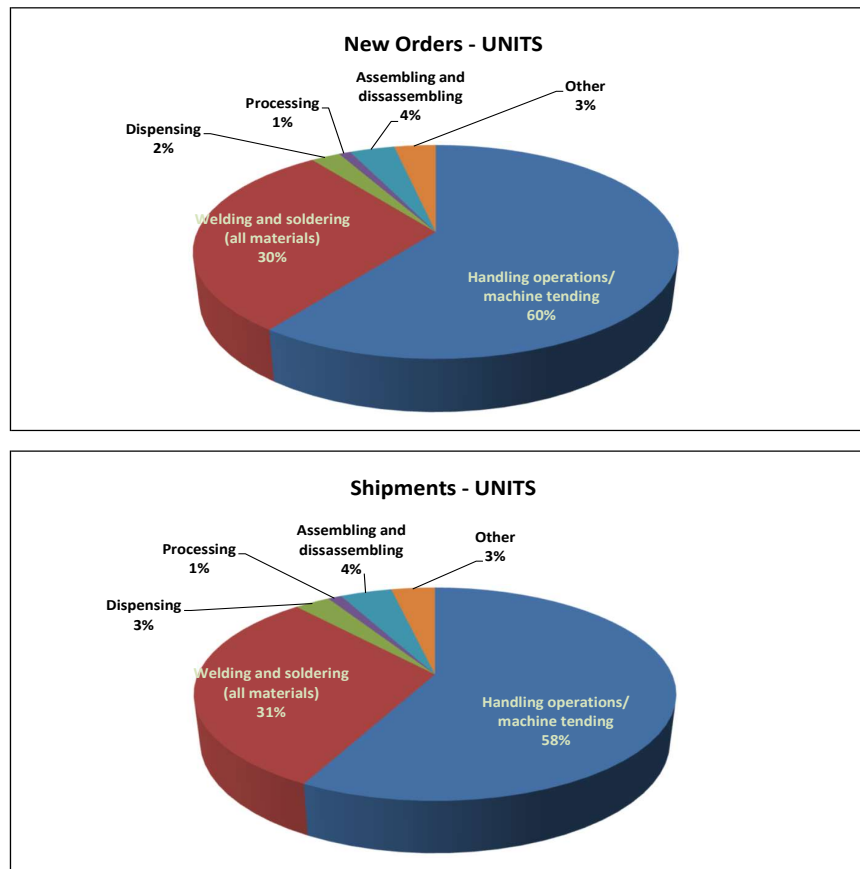
Automotive vs Non-Automotive Orders



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

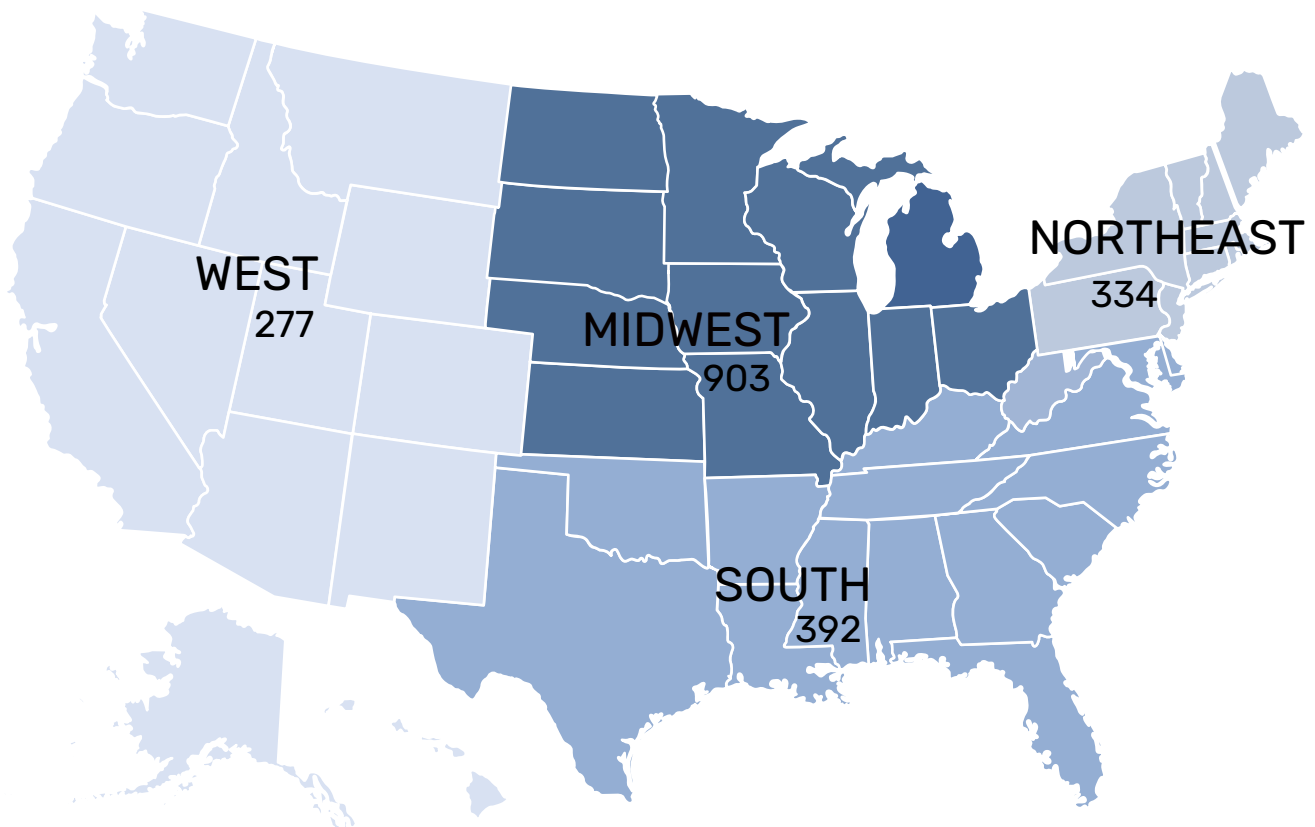


The graphs show the applications of the robots sold and shipped in 2021. Handling/machine tending, welding and soldering robots dominate the market with a combined 90 % share of new orders and 89 % of new shipments.

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



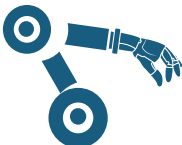
The figure shows the number of suppliers in each region, including local offices. The distinction that places each state into a region is using the system that the US Census Bureau uses. Nearly half of the automation firms in the entire country are in the Midwest, possibly due to a large number of automotive 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

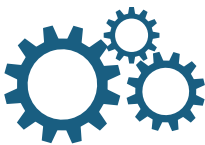
The suppliers analyzed in this report can be categorized as follows:



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
Midwest	0%	2%	55%	1%	42%	100
South	0%	1%	50%	1%	48%	100
East	0%	1%	50%	1%	48%	100

The highest number of suppliers are found in the West, with 277 suppliers in total. The West is also the most common supplier type in the country, with 69% of suppliers being integrators. The Midwest and South are the most common in the country with only 48 distributors and 7 advisors across the entire top 100. 4 of these advisors reside in the South. Although the West has the most number of overall suppliers, it also contains 47 manufacturers, second only to the Midwest with 46.

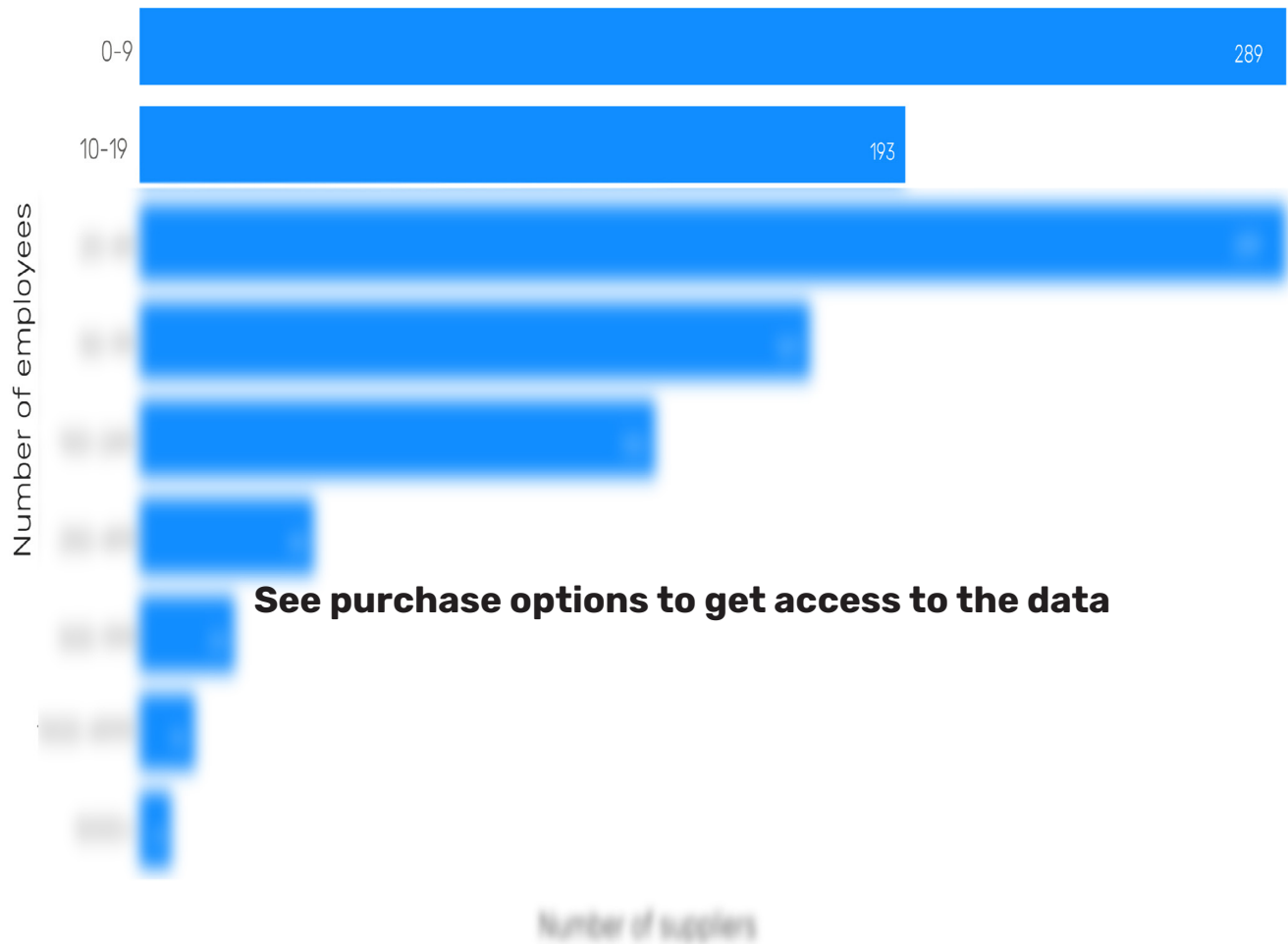
See purchase options to get access to the data

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.



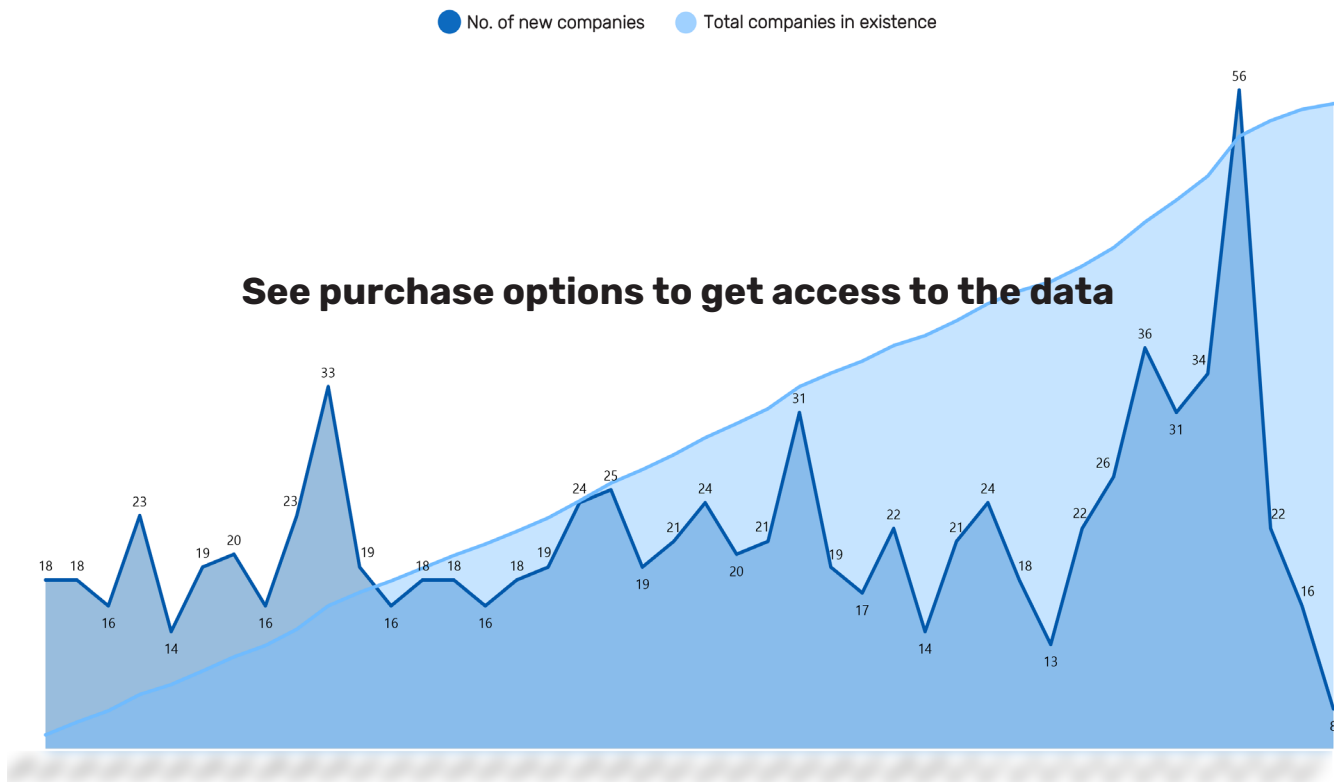
Size of robot and automation firms



See purchase options to get access to the data

The highest concentration of suppliers is within the Midwest, where 47% of all suppliers are found, 76% of which are integrators, which is also the most common supplier type in the country. Companies that primarily act as distributors and advisors are the next common in the country with only 46 distributors and 7 advisors across the whole nation. 4 of these advisors reside in the South, although the West has the next number of overall suppliers. It still contains 47 manufacturers, located only in the Midwest with 46.

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

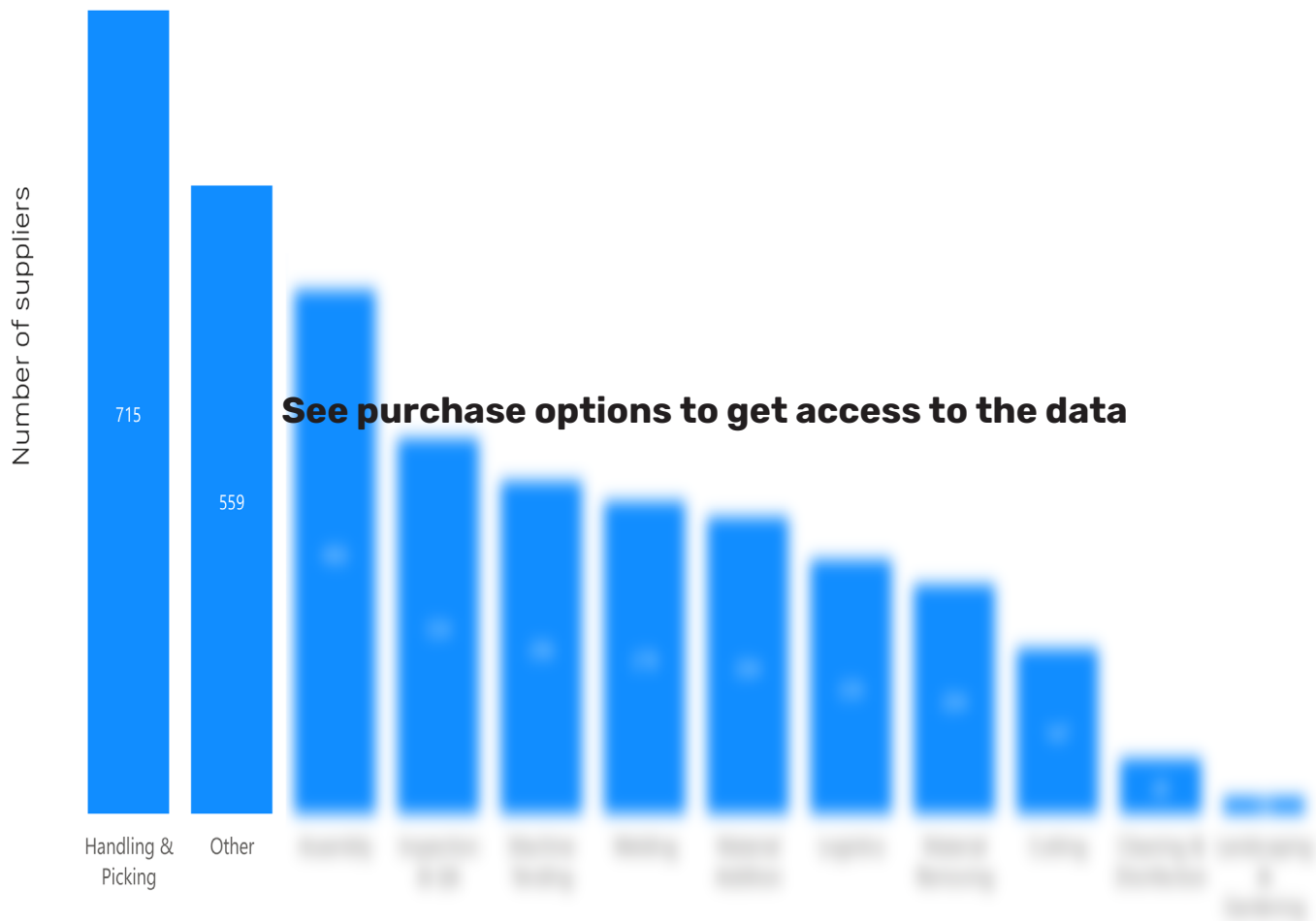


Over 90% of the companies in the **1000-2500** range have under 250 employees, with a large number operating with under 50 employees. Of the 289 companies with under 50 employees, 166 of them were established after 1970. This highlights the trend that the longer a company has been operating, the higher the chance of having more employees. For example, most companies in the 20-49 employees range were established between 1980 and 1999. This continues through to the 8 large companies with 5000+ employees, as 5 of these companies were established between 1945 and 1959.

Robot solution types offered by most suppliers

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

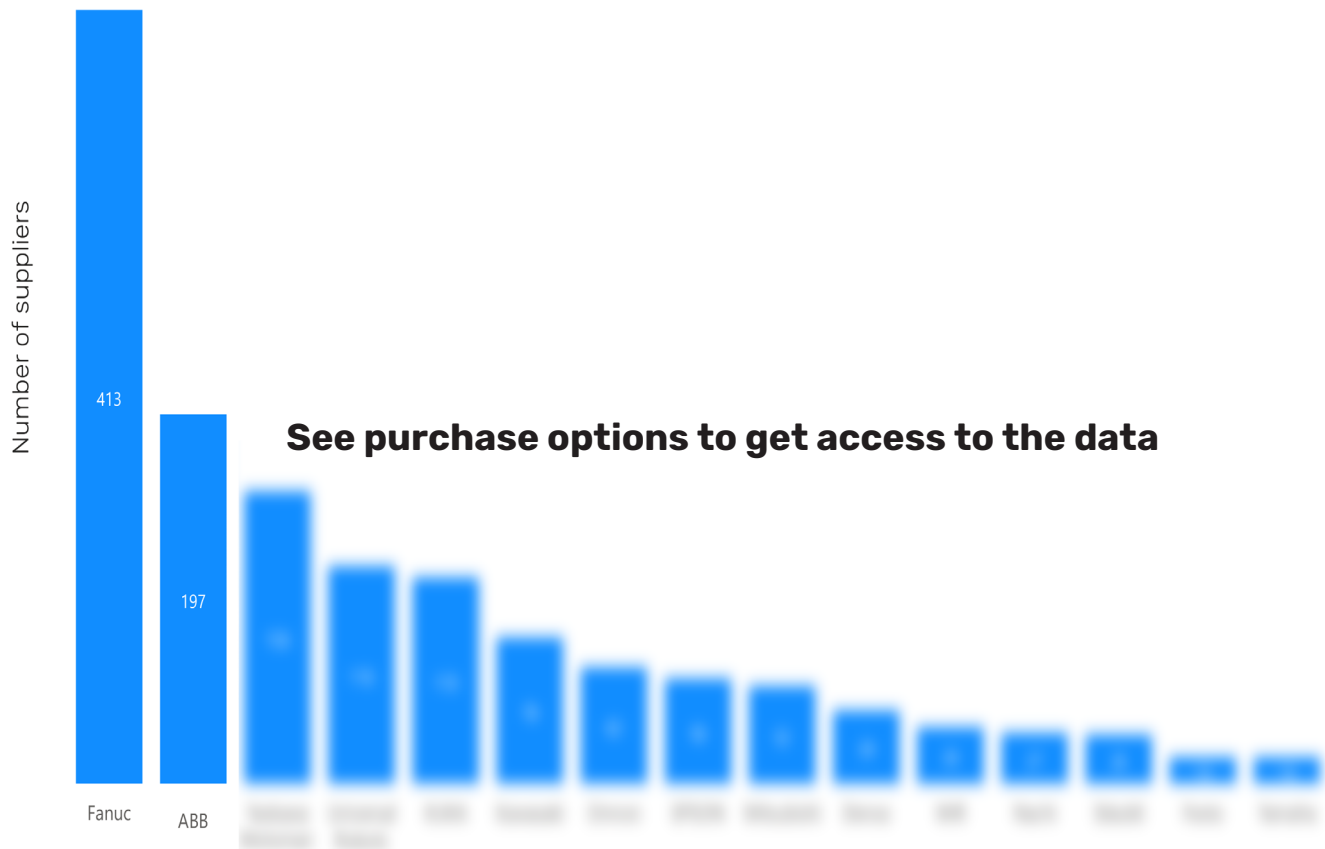
A supplier can offer multiple solutions for different applications, even participate in several categories. Hence the sum of solutions available is far greater than the number of suppliers.



Most firms from this report specialize in tasks related to Handling & Picking. The second largest category is Other, this includes tasks such as palletizing, depalletizing, packing, etc. The lowest number of firms specialize in Clearing & Construction and Landscaping & Gardening.

Over the past 10 years, there have been 154 new companies established that are within Handling & Picking. Of the 226 companies involved in logistics, 15 new companies formed since 2010. This is a 6% increase from all the years beforehand.

Top 15 robot brands used by most suppliers



The most common brands used in the US are Fanuc, followed by ABB and Yaskawa. One company that has seen growth over the past two decades is Universal Robots with half of their partnered companies being established recently.

This overview may not represent the full picture of the American robotic industry, as many integrators do not mention any robot brands that they work with on their websites. We do not show the manufacturers using their own brands in this graph.

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

The suppliers can be incorporated within many different industries, therefore the number of industries represented is greater than the number of suppliers in the country. Most automation firms in the USA target the Metal & Machinery industry, Automotive and Other. Within the Other category, the largest number of companies are specialized in Aerospace & Defense and Consumer goods.

The industries such as Paper & Pulp and Textile are listed with the lowest number of suppliers with these specializations. One industry that has seen growth over the past decade is Robotics, with 38 new companies since 2010.

Both Logistics and the Food & Beverage industries saw 30 and 19 new companies respectively during that same span. This translates to Logistics having a 33% increase and Food & Beverage with a 33% increase since 2010.



Name			
3M			
Address		Postal Code	City
3M Center		55005-0001	St Paul
Website		Email	Telephone
http://www.3m.com/			+16517654000
Employees	Established	Supplier Type	Brand
10000	1902	Sub-component supplier	
Application		Industry	
Logistics, Handling & Picking, Other		Energy, Automotive, Construction, Electronics & Technology, Food & Beverage, Healthcare, Industrial & Machinery, Pharma & Chemicals, Other	
Reference Customers			



Name			
4D Systems, LLC.			
Address		Postal Code	City
4000 Market Place		29107	Fort
Website		Email	Telephone
http://www.4dsystems.com		info@4dsystems.com	+18034864000
Employees	Established	Supplier Type	Brand
1000	2011	Integrator	
Application		Industry	
Assembly, Handling & Picking, Material Removing, Material Transport, Machine Tooling, Working, Other		Automotive, Electronics & Technology, Healthcare, Metal & Machinery, Robotics, Other	
Reference Customers			

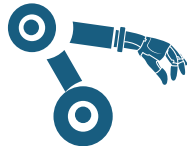
Name			
966 Industries			
Address		Postal Code	City
807 20th St		55005-0001	St Paul
Website		Email	Telephone
http://www.966.com/			+16517654000
Employees	Established	Supplier Type	Brand
1000	2011	Integrator	
Application		Industry	
Assembly, Handling & Picking, Material Removing, Material Transport, Machine Tooling, Working, Other		Automotive, Electronics & Technology, Healthcare, Metal & Machinery, Pharma & Chemicals, Robotics, Rubber & Plastics, Other	
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
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822 Integrators
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