



# ABB ROBOTICS

Industrial robots product range



**ENGINEERED  
TO OUTRUN**

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**ABB Robotics & Discrete Automation as one of the world's leading robotics and machine automation suppliers, is the only company with a comprehensive and integrated portfolio covering robots, Autonomous Mobile Robots and machine automation solutions, designed and orchestrated by our value-creating software. We help companies of all sizes and sectors - from automotive to electronics and logistics – to outperform by becoming more resilient, flexible and efficient.**

**ABB Robotics & Discrete Automation supports customers in the transition towards the connected and collaborative factory of the future, operating leaner and cleaner for a better future. The business area employs approximately 11,000 people at over 100 locations in approximately 53 countries.**

**[go.abb/robotics](https://go.abb/robotics)**

# VALUE ARCHITECTURE

A unique architecture designed to boost productivity and flexibility, tailored to meet all of your needs.

—  
**Most comprehensive mechatronics platform**



**Domain expertise**

—  
**Leading software & technology stack**



**Smart systems**

—  
**Intelligent future – ready controller platform**



**Application cells**

—  
**Innovative service offerings for the entire lifecycle**

**Functional modules**

## **Most comprehensive mechatronics platform**

ABB Robotics has developed the most comprehensive product portfolio on the market. This includes a new generation of controllers, best in the market performing collaborative and industrial robot families, as well as a comprehensive portfolio of AMRs features with market-leading AI VSLAM.

## **Leading software & technology stack**

RobotWare is the robotic OS that offers endless avenues for value creation through its RAPID language, intuitive Wizard Easy Programming and AI-built skills. RoboStudio® is the best tool to simulate systems, from accurate cell simulation to layout and fleet management.

## **Intelligent future-ready controller platform**

Bundling more value than any other robotic controllers, OmniCore™ delivers on our hallmark promise of robust motion control and safety while integrating top-tier cyber security, connectivity, integrated sensor and AI processing.

# PRODUCT RANGE

## Wide variety of robots to fit all needs

### Articulated robots

Leveraging our profound expertise in industry automation and domain knowledge, ABB excels in the creation of high-performance articulated robots designed to elevate our customers' productivity and quality. Featuring ABB's TrueMove and QuickMove motion control technology, the robots can achieve class-leading repeatability and cycle time.



### Collaborative robots

ABB's collaborative robots are made for a wide range of tasks, in operations of every size. They're easy to set up, program, operate, and scale. Built by industry-leading experts. And serviced by the broadest service network in the industry. Whatever you need, we're here to support every step of your automation journey.



### Paint robots

A complete range of paint robots to help you increase the productivity and quality of your paint shop operations. Designed for automotive interior & exterior painting, tiers, and general small & medium parts painting applications.



### Delta robots

ABB's Delta robot portfolio is the leader in state-of-the-art high-speed robotic picking and packing technology for use in the picking, packing, and packaging applications. Our delta robots offer the greatest flexibility in a compact footprint.

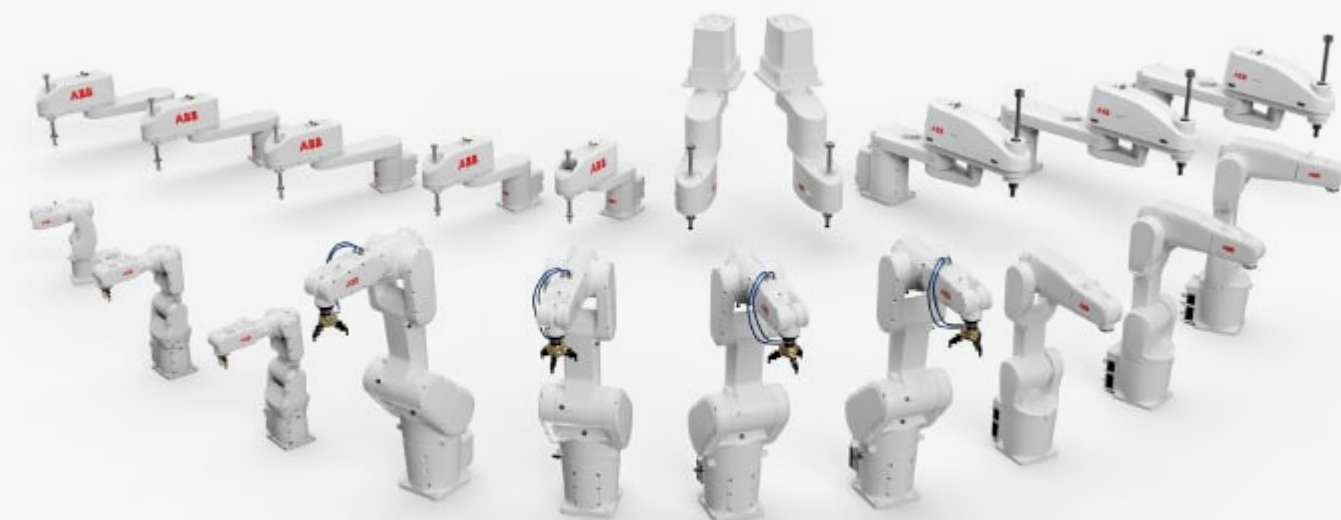


**SCARA robots**

Quick, precise, and reliable, ABB's SCARA robots are ideal for customers requiring rapid cycle times, high precision, and high reliability for material handling, loading & unloading, picking & placing, and small part assembly & testing applications.

**Palletizer robots**

ABB's 4-axis palletizer robots are the fastest in the market. Designed for shortening cycle times and raising productivity for end-of-line, multi-feed-in/-out, and bag palletizing.



## Articulated: small robots



Model Name	IRB 1010	IRB 1090	IRB 1100	IRB 1200	IRB 1300
Payload (kg)	1.5	3.5	4 4	5 7	7 10 11 12
Reach (m)	0.37	0.58	0.475 0.58	0.90 0.70	1.4 1.15 0.9 1.4
Variants	IRB 1010-1.5/0.37	IRB 1090-3.5/0.58	IRB 1100-4/0.475 IRB 1100-4/0.58	IRB 1200-7/0.7 IRB 1200-5/0.9 IRB 1200-7/0.9	IRB 1300-11/0.9 IRB 1300-10/1.15 IRB 1300-7/1.4 IRB 1300-12/1.4
Pose rep. (mm)*	0.01	0.05	0.01	0.02 0.025 0.013	0.03 0.023 0.02 0.05
Mounting	Floor, inverted	Floor, inverted	Any angle	Any angle	Any angle
Protection and special options	Std: IP40	Std: IP40	Std: IP40 Option: Clean Room ISO 4, IP67	Std: IP40. Option: Foundry Plus 2, IP67, Clean Room ISO 3, Food Grade Lubrication, Hygienic	Std: IP40 Option: IP67, Foundry Plus 2, Clean Room ISO 4
Axes	6	6	6	6	6
Controller	OmniCore	OmniCore	OmniCore	IRC5 OmniCore	OmniCore
Remark					
Compliant with ISO 9283.					*Pose repeatability

## Articulated: medium robots

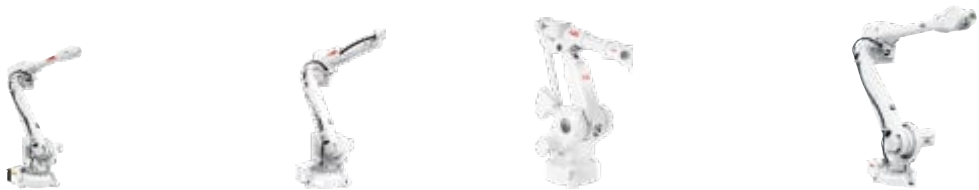


Model Name	IRB 1520ID	IRB 1600	IRB 1660ID
Payload (kg)	4	6 10	4 6
Reach (m)	1.50	1.20/1.45 1.20/ 1.45	1.15
Variants	IRB 1520ID-4/1.5	IRB 1600-6/1.2 IRB 1600-6/1.45 IRB 1600-10/1.2 IRB 1600-10/1.45	IRB 1660ID-4/1.55 IRB 1660ID-6/1.55
Pose rep. (mm)*	0.05	0.02 0.02/0.05	0.02
Mounting	Floor, inverted	Floor, wall, inverted, tilted, shelf	Floor, wall, inverted, tilted
Protection and special options	Std: IP40	Std: IP54 Option: Foundry Plus 2	Std: IP67 (Axis 4: IP40)
Axes	6	6	6
Controller	IRC5 OmniCore	IRC5 OmniCore	IRC5 OmniCore
Remark			
Compliant with ISO 9283.			*Pose repeatability





Articulated: medium robots



Model Name	IRB 2600	IRB 2600ID	IRB 4400 IRB 4400L	IRB 4600
Payload (kg)	12/12 20	15 8	60 10	20/40/ 45/60
Reach (m)	1.65/1.85 1.65	1.85 2.00	1.96 2.55	2.5/2.55/ 2.05/2.05
Variants	IRB 2600-20/1.65 IRB 2600-12/1.65 IRB 2600-12/1.85	IRB 2600ID-15/1.85 IRB 2600ID-8/2.00	IRB 4400/60-1.96 IRB 4400L/10-2.55	IRB 4600-60/2.05 IRB 4600-45/2.05 IRB 4600-40/2.55 IRB 4600-20/2.50
Pose rep. (mm)*	0.04	0.026 0.023	0.05 0.05	0.05 - 0.06
Mounting	Floor, wall, inverted, tilted, shelf	Floor, wall, inverted, tilted, shelf	Floor	Floor, inverted, tilted
Protection and special options	Std: IP67, IP54 (axis 4) Option: Foundry Plus 2	Std: IP67 for base and lower arm. IP54 for upper arm	Std: IP54 Option: IP67, Foundry Plus 2	Std: IP67 Option: Foundry Plus 2, Foundry Prime 2 for 60kg, Clean Room ISO 5
Axes	6	6	6	6
Controller	IRC5 OmniCore	IRC5 OmniCore	IRC5 OmniCore	IRC5 OmniCore
Remark				

Compliant with ISO 9283.

\*Pose repeatability



Articulated: large robots



Model Name	IRB 5710	IRB 5720	IRB 6650S	IRB 6660
Payload (kg)	70/90/ 90/110	90/125/ 155/180	90 125 200	100 130 205
Reach (m)	2.7*/2.3*/ 2.7/2.3	3.0*/3.0 2.6*/2.6	3.90 3.50* 3.00*	3.30 3.10 1.90
Variants	IRB 5710-110/2.3 IRB 5710-90/2.7 IRB 5710-90/2.3 LID IRB 5710-70/2.7 LID	IRB 5720-180/2.6 IRB 5720-125/3.0 IRB 5720-155/2.6 LID IRB 5720-90/3.0 LID	IRB 6650S-125/3.5 or option LID IRB 6650S-200/3.0 or option LID IRB 6650S-90/3.9	IRB 6660-130/3.1 IRB 6660-205/1.9 IRB 6660-100/3.3
Pose rep. (mm)*	0.04-0.05	0.04-0.05	0.13 0.14	0.10 0.11 0.07
Mounting	Floor, tilted, inverted	Floor, tilted, inverted	Shelf	Floor
Protection and special options	Std: IP67 Option: Foundry Plus 2	Std: IP67 Option: Foundry Plus 2	Std: IP67, Option: Foundry Plus 2. High pressure steam washable	Std: IP67 Option: Foundry Plus 2
Axes	6	6	6	6
Controller	OmniCore	OmniCore	IRC5 OmniCore	IRC5 OmniCore
Remark	*Available with LeanID	*Available with LeanID	*Available with LeanID	

Compliant with ISO 9283.

\*Pose repeatability



## Articulated: large robots



Model Name	IRB 6710	IRB 6720	IRB 6730	IRB 6740
Payload (kg)	175–210	150–240	190–270	220–310
Reach (m)	2.66–2.95	2.5–3.1	2.7–3.1	2.8–3.2
Variants	IRB 6710-210/2.65 IRB 6710-200/2.95 IRB 6710-175/2.65 LID IRB 6710-175/2.95 LID	IRB 6720-240/2.65 IRB 6720-210/2.8 IRB 6720-170/3.1 IRB 6720-215/2.5 LID IRB 6720-215/2.65 LID IRB 6720-200/2.8 LID IRB 6720-150/3.1 LID	IRB 6730-270/2.7 IRB 6730-240/2.9 IRB 6730-210/3.1 IRB 6730-220/2.9 LID IRB 6730-190/3.1 LID	IRB 6740-310/2.8 IRB 6740-260/3.0 IRB 6740-240/3.2 IRB 6740-270/2.8 LID IRB 6740-230/3.0 LID IRB 6740-220/3.2 LID
Pose rep. (mm)*	0.03/0.04	0.04/0.05/0.06	0.04/0.07	0.04/0.05/0.06
Mounting	Floor	Floor	Floor	Floor
Protection and special options	Std: IP67 Option: Foundry Plus 2	Std: IP67 Option: Foundry Plus 2	Std: IP67 Option: Foundry Plus 2	Std: IP67 Option: Foundry Plus 2
Axes	6	6	6	6
Controller	OmniCore	OmniCore	OmniCore	OmniCore
Remark				

Compliant with ISO 9283.

\*Pose repeatability



## Articulated: large robots



Model Name	IRB 6790	IRB 7710	IRB 7720	IRB 8700
Payload (kg)	205/235	280–500	400–620	550 800
Reach (m)	2.80/2.65	2.85–3.5	2.9–3.5	4.20* 3.50*
Variants	IRB 6790-235/2.65 IRB 6790-205/2.80	IRB 7710-500/2.85 IRB 7710-430/3.1 IRB 7710-360/3.3 IRB 7710-310/3.5 IRB 7710-400/2.85 LID IRB 7710-390/3.1 LID IRB 7710-325/3.3 LID IRB 7710-280/3.5 LID	IRB 7720-620/2.9 IRB 7720-530/3.1 IRB 7720-510/3.3 IRB 7720-450/3.5 IRB 7720-560/2.9 LID IRB 7720-480/3.1 LID IRB 7720-400/3.3 LID IRB 7720-400/3.5 LID	IRB 8700-800/3.50 or option LID IRB 8700-550/4.20 or option LID
Pose rep. (mm)*	0.05	0.06/0.10	0.05/0.06	0.08 0.05
Mounting	Floor	Floor	Floor	Floor
Protection and special options	Std: IP69, Foundry Prime 3	Std: IP67 Option: Foundry Plus 2	Std: IP67 Option: Foundry Plus 2	Std: IP67 Option: Foundry Plus 2
Axes	6	6	6	6
Controller	IRC5 OmniCore	OmniCore	OmniCore	IRC5 OmniCore
Remark				*Available with LeanID

Compliant with ISO 9283.

\*Pose repeatability

## Cobots



Model Name	CRB 15000 GoFa™	IRB 14000 YuMi®	IRB 14050 YuMi®
Payload (kg)	5/10/12	0.50	0.50
Reach (m)	0.95 (1.05TCP) 1.27 (1.37TCP) 1.52 (1.62TCP)	0.559	0.559
Variants	CRB 15000-5/0.95 CRB 15000-12/1.27 CRB 15000-10/1.52	IRB 14000-0.5/0.5	IRB 14050-0.5/0.5
Pose rep. (mm)*	0.02	0.02	0.02
Mounting	Any angle	Table	Any angle
Protection and special options	Std: IP54 for GoFa 5, IP67 for Gofa 10 and 12, Clean Room ISO 4	Std: IP30 and Clean Room ISO 5	Std: IP30 and Clean Room ISO 6
Axes	6	14	7
Controller	OmniCore	Embedded IRC5	OmniCore
Remark	Functional safety Category 3, PL d	Functional safety Category B, PL b	Functional safety Category 3, PL d

Compliant with ISO 9283.

\*Pose repeatability

## Parallel / Delta robots



Model Name	IRB 390 FlexPacker®		IRB 360 FlexPicker®		IRB 365 FlexPicker®
Payload (kg)	10		1		1.5
	15		3		
			6		
			8		
Reach (m)	1.3		1.13/1.60		0.8
	1.3		1.13		1.1
			1.60		1.3
			1.13		
Variants	IRB 390-15/1300	IRB 360-1/1130	IRB 360-1/1600		IRB 365-1.5/1100
	IRB 390-10/1300	IRB 360-3/1130	IRB 360-8/1130		IRB 365-1.5/1300
			IRB 360-6/1600		IRB 365-1.5/800
Pose rep. (mm)*	0.08	0.09/0.03	0.03		0.05
	0.01	0.06	0.05		
Mounting	Inverted		Inverted		Inverted
Protection and special options	Std: IP67, FGL		Std: IP54/67/69K, FGL		Std: IP54, FGL
			Option: Clean Room, Wash-down, Stainless		
Axes	5		4		5
	4				
Controller	IRC5		IRC5		OmniCore
	OmniCore		OmniCore		
Remark					

Compliant with ISO 9283.

\*Pose repeatability

## SCARA robots



Model Name	IRB 910INV		IRB 920/IRB 920T		IRB 930
Payload (kg)	1 (max 3)		6		12
	3 (max 6)				12
					22
Reach (m)	0.35		0.45		0.85
	0.55		0.55		1.05
			0.65		1.05
Variants	IRB 910INV-3/0.35		IRB 920-6/0.55		IRB 930-12/0.85
	IRB 910INV-6/0.55		IRB 920-6/0.65		IRB 930-12/1.05
			IRB 920T-6/0.45		IRB 930-22/1.05
			IRB 920T-6/0.55		
			IRB 920T-6/0.65		
Pose rep. (mm)*	0.01		0.01-0.02		0.01
	0.01				0.01
					0.02
Mounting	Inverted		Floor		Floor
Protection and special options	Std: IP30.		Std: IP 30		Std: IP30
	Option: Clean Room ISO 1, IP54		Option: IP54, Clean Room ISO 5		
Axes	4		4		4
Controller	OmniCore		OmniCore		OmniCore
Remark					

Compliant with ISO 9283.

\*Pose repeatability

# Paint robots



Model Name	IRB 5500	IRB 5510	IRB 5350
Payload (kg)	13	13	7
Reach (m)	2.97	2.56	1.35
			Rail travel length: 3-10
Variants	IRB 5500-22. 6 axes IRB 5500-23. 7 axes floor IRB 5500-25. 7 axes elevated IRB 5500-27. 7 axes rotative	6 axes	3 axes 4 axes
Pose rep. (mm)*	0.15	0.15	0.15
Mounting	Floor, wall, inverted, tilted Elevated	Floor	Floor, rail
Protection and special options	Std: IP66, Ex	Std: IP66, Ex	Std: IP66, Ex
Axes	6 7	6	3 4
Controller	IRC5P	IRC5P	IRC5P
Remark			

Compliant with ISO 9283.

\*Pose repeatability

# Palletizing robots



Model Name	IRB 460	IRB 660	IRB 760
Payload (kg)	110	180 250	450
Reach (m)	2.40	3.15	3.18
Variants	IRB 460-110/2.4	IRB 660-180/3.15 IRB 660-250/3.15	IRB 760-450/3.2 IRB 760-445/3.2
Pose rep. (mm)*	0.20	0.05	0.05
Mounting	Floor	Floor	Floor
Protection and special options	Std: IP67	Std: IP67	Std: IP67
Axes	4	4	4
Controller	IRC5 OmniCore	IRC5 OmniCore	IRC5 OmniCore
Remark			

Compliant with ISO 9283.

\*Pose repeatability

# OMNICORE™

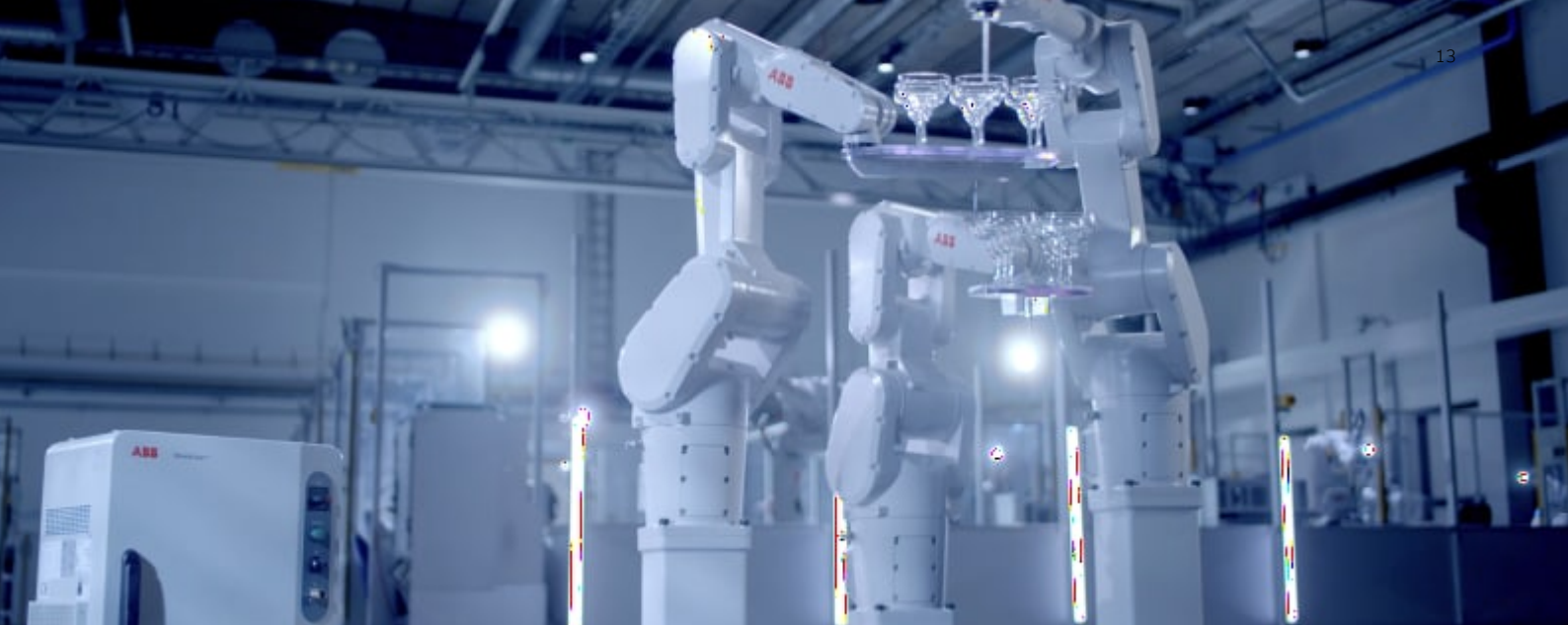
## POWERING FUTURE-READY, SUSTAINABLE ROBOTS TODAY



The OmniCore platform powers our extensive robot portfolio, providing future-proof, scalable control to automate almost any imageable application.

The OmniCore platform stands out for its capacity to enable motion, force, and sensor applications, all out of a single unified system. OmniCore delivers the full value provided by the ABB Robotics hardware and software portfolio in any combination, offering boundless potential for customer innovation and value creation. With its unprecedented pairing of accuracy and speed to robotics motion control, for efficient operations.

	<b>E10</b> Ultra-slim	<b>C30</b> Compact	<b>C90XT</b> Rugged yet compact	<b>V250XT</b> Versatile	<b>V400XT</b> Large and flexible
					
 <b>Applicable robots</b>	 Articulated  SCARA	 Cobot  Delta  Articulated  SCARA	 Cobot  Delta  Articulated  SCARA	 Articulated  Delta  Palletizer	 Articulated  Delta  Palletizer
 <b>Designed to power robots with payloads</b>	Up to 22 kg (IRB 1300, IRB 930)	Up to 22 kg (IRB 1600, IRB 930)	Up to 22 kg (IRB 1600, IRB 930)	Up to 310 kg (IRB 6790)	Up to 800 kg (IRB 8700)
 <b>Width × Depth × Height</b>	449 × 338 × 89 mm	449 × 443 × 170 mm	500 × 355 × 520 mm	650 × 480 × 960 mm	650 × 480 × 1140 mm
 <b>Applicable industries</b>	Electronics General Industries	Electronics Food & Beverage General Industries	Electronics Food & Beverage General Industries	Automotive General Industries Logistics	Automotive General Industries Logistics
 <b>#ADU (additional drive unit) Up to...</b>	0	0	1	3	6



#### Highest productivity and quality

With OmniCore, robots achieve class-leading motion control with path accuracies down to 0.6 mm, even with multiple robots operating at maximum speeds of 1600 mm/s.



#### Cybersecurity and full traceability

Built-in cybersecurity and traceability features allow businesses to increase quality and productivity by reducing downtime.



#### Unmatched scalability

OmniCore powers the market's most extensive range of robots and manipulators, providing 5 different controllers that run on the same platform.



#### Safety

OmniCore complies with future safety standards and includes up to 100 safety configurations to meet the needs of diverse use cases.



#### Commitment to sustainability

Featuring built-in power back into the grid and regeneration technology to achieve up to 20% energy savings compared to its predecessor.



#### Future proof design

Designed for easy integration of market-leading computing power, enabling AI, Cloud, and advanced vision systems.



#### Easy integration

The integration of all major communication protocols in a single controller platform accelerates commissioning times from weeks to days, with additional gains from the leading number of pre-engineered application software tools and over up to 1000 time-saving features.





# KEY INNOVATIONS

## Expertise and support you can rely on

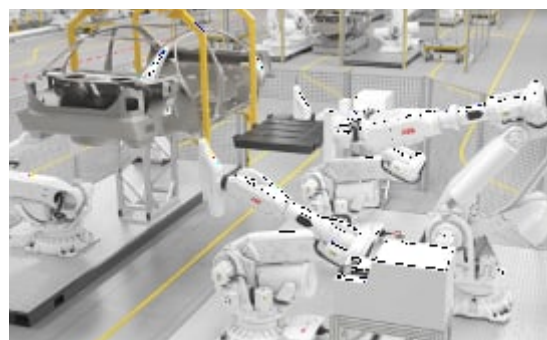
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IRB 7710-SFX allows press lines to reach up to 15 strokes-per-minute to process 900 parts per hour



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IRB 7720 is designed for high payload assembly, such as EV batteries and other heavier parts



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IRB 365 FlexPicker® is both flexible and the fastest in its class for reorientating packaged lightweight products



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IRB 5710 ~ IRB 6740 support a wide range of applications such as spot welding, material handling, dispensing and gluing



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IRB 930 high-payload SCARA robots are designed for rapid pick-and-place tasks in electronics and EV battery cell production.



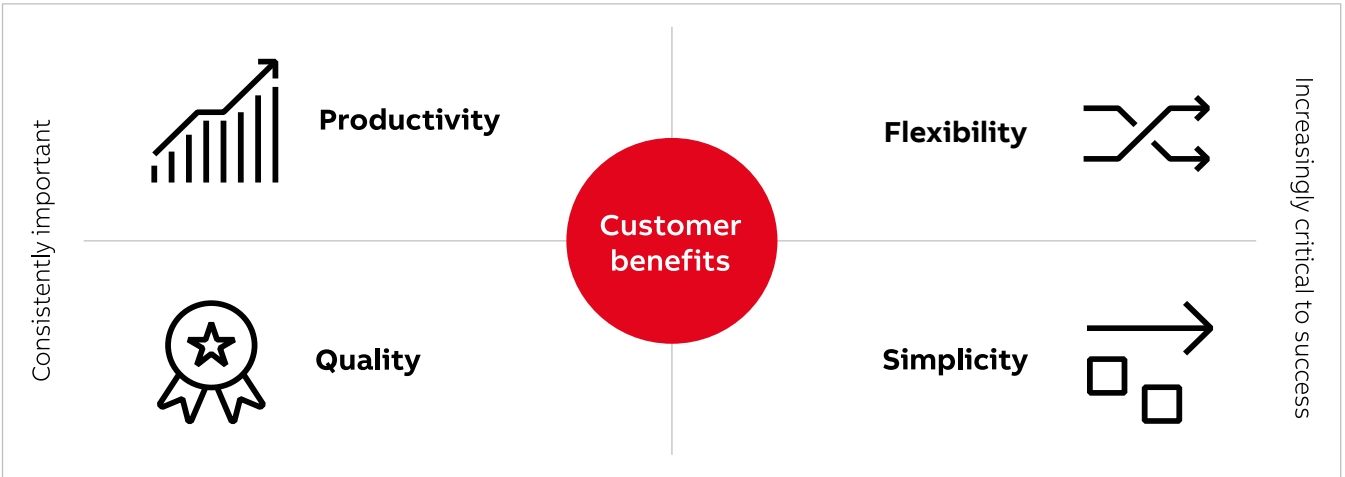
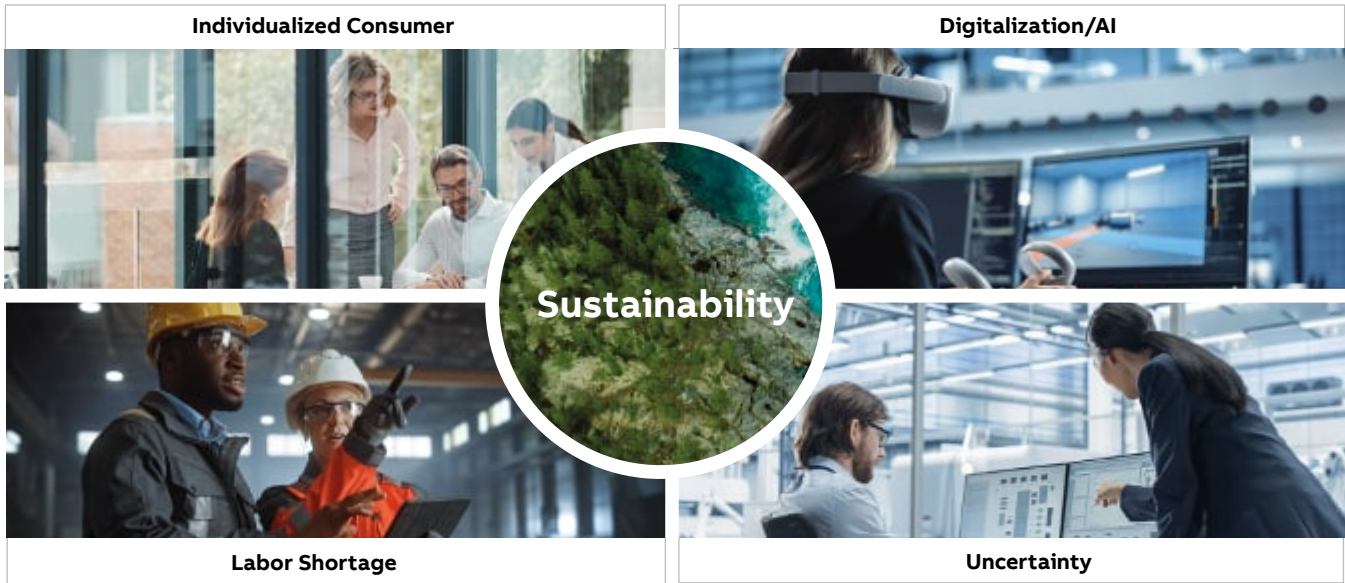
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IRB 1010, ABB's smallest industrial robot, unlocks new opportunities for faster, high-quality production of wearable smart devices





# MEGA-TRENDS DRIVE ROBOTICS AND AUTOMATION GROWTH



- Market growth driven by mega-trends of individualized consumers, labor shortage, digitalization/ artificial intelligence, uncertainty and sustainability.
- Resulting in need for automation solutions for increased productivity, highest flexibility, improved quality and maximum simplicity.



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