

A look at robots ready for work

At a glance

Robots once were viewed as expensive, limited in their abilities, and applicable only in manufacturing. Now, THEY are more capable, easier to use, and less COSTLY, making the technology more desirable and accessible. But competing operating systems, form factors, and interfaces make for a fragmented robotics marketplace. We believe widespread adoption will accelerate when dominant vendors and platforms begin to emerge.

Five ways robots are going mainstream

They're not restricted to structured environments.



They can now handle dynamic, less predictable settings. In hospitals, robots can safely roam halls and deliver medications. In hotels, they can deliver towels, toiletries, and minibar items to guest rooms.



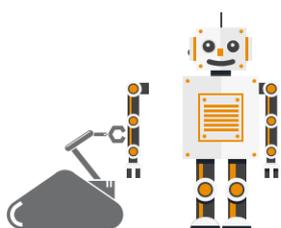
They can work with humans.

Thanks to sensors and smart technology, new-generation robots are much safer around humans.

They can learn.



The new robots can "learn" skills through trial and error, mimicking the way humans learn new tasks.



They are no longer single-task machines.

Robots are being designed with modularity in mind, beginning with a platform upon which a customized solution can be built.

They're moving beyond the factory floor.



Robots are engaged in functions across the enterprise, including positions where they interact directly with customers and employees.

Benefits of robotics

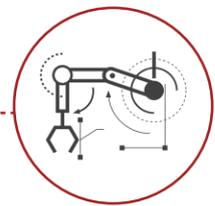
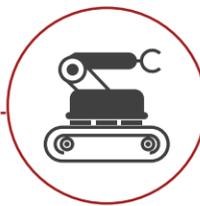
Robots are not just for manufacturing anymore. No matter the industry, they can:

Automate business operations

Boost efficiency, quality, and repeatability

Free up humans for higher-value tasks

Replace or augment humans in jobs where there are labor shortages



Potential challenges



Lack of expertise and support

Your company may not have the knowledge or the resources to buy and maintain robots.



Fallout from job losses

Robots could displace workers, which could lower morale and create conflict with labor unions.



Regulatory compliance

Safety rules and monitoring and reporting requirements can create burdens, particularly for smaller companies.



Costs

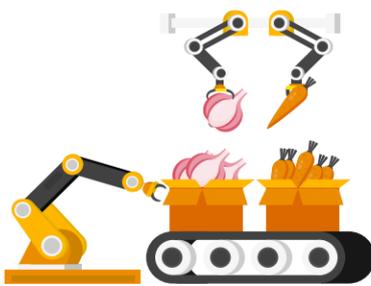
Prices for robots are dropping, but the cost of engineering the system, installing it, and managing the change can be prohibitive.

Potential new applications



Collaboration

Robots can replace or work as "cobots," in tandem with humans.



Handling more complex tasks

Robots can be instrumental in warehousing and fulfillment by fetching, monitoring inventory, moving pallets, picking, packing, screening, and inspecting. They can also greet, direct, and assist customers.



Mitigating labor shortages

Robots can be used to automate tasks too difficult and expensive for human manual labor. For example, robots won't just plant and harvest crops; they'll also monitor their health, size, and maturity, and target-spray fertilizer, herbicides, and fungicides where most needed.

Source: PwC, 2017

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