What Cobots Can Do for Your Business

A COBOT IS A COLLABORATIVE ROBOT — ONE THAT WORKS ALONGSIDE HUMANS TO COMPLEMENT AND AUGMENT HUMAN CAPABILITIES.

The number of industrial robots sold will grow from 381K in 2017 to 630K in 2021, which represents over 13% annual growth.\(^1\)

Cobots share of industrial robot sales now: 3% 
In 2025: 34% \(^2\)

In 2017, 5 countries represented 73% of total global industrial robot supply. China has the leading market share, supplying 36% of the market with growth of 58% in 2017.\(^4\)

WHERE ARE COBOTS USED IN A MANUFACTURING FACILITY?

- Assembly
- Loading/unloading
- Monotonous, repetitive, and/or dangerous tasks
- Packaging finished goods
- Palletizing
- Picking/placing
- Tool application (screwing, bolting, drilling, gluing, welding)

WHAT INDUSTRIES USE INDUSTRIAL ROBOTS NOW?

<table>
<thead>
<tr>
<th>Industry</th>
<th>(2017 annual supply, thousands of units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive</td>
<td>(126)</td>
</tr>
<tr>
<td>Electrical/electronics</td>
<td>(121)</td>
</tr>
<tr>
<td>Metal</td>
<td>(45)</td>
</tr>
<tr>
<td>Plastic and chemical products</td>
<td>(21)</td>
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<tr>
<td>Food and beverages</td>
<td>(10)</td>
</tr>
<tr>
<td>Other and Unspecified</td>
<td>(58)</td>
</tr>
</tbody>
</table>

WHY INVEST IN COBOTS?

- Achieve consistency in quality and quantity
- Boost production output
- Fill employment gaps during upswings (seasonal requirements)
- Grow manufacturing capability
- Increase response time to consumer needs
- Meet market demand for customization
- Meet shortage of skilled manufacturing workers
- Realize productivity gains
- Reduce operating costs

Cobots IN ACTION

At Kay Manufacturing in Illinois, a cobot visually inspects automotive parts, its rotating arm allows an attached camera to spot any defects. Cobots allowed the company to grow, and it has hired more employees.\(^5\)

Hyundai’s cobots are exoskeletons that, worn by industrial workers, give them much-enhanced endurance and strength.\(^6\)

At Ford, cobots lift and position heavy parts of cars, protecting the health of employees and helping them get more jobs done, more quickly.\(^7\)

Visit: https://www.nist.gov/mep/mep-national-network

Call: 1-800-MEP-4MFG

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\(^1\) International Federation of Robotics, World Robotics 2018
\(^2\) Robotic Industries Association, citing Loup Ventures report
\(^3\) Markets and Markets: “Collaborative Robot Market by Payload Capacity, Industry, Application, and Geography — Global Forecast to 2025”
\(^4\) International Federation of Robotics, World Robotics 2018
\(^6\) https://hbr.org/2018/07/collaborative-intelligence-humans-and-ai-are-joining-forces