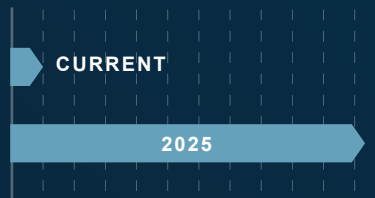


What Cobots Can Do for Your Business

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

HOW MANY INDUSTRIAL ROBOTS AND COBOTS ARE SOLD?

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



Cobot share of industrial robot sales now: **3%**
In 2025: **34%**²

Cobot global market 2018-2025:
>50% compound annual growth rate³



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

Cobot

TASKS & DRILLS

VS

Human

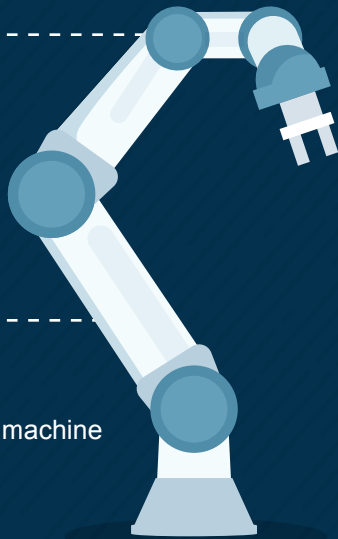
THOUGHTS & SKILLS

TASKS COBOTS DO:

- ⚙ Repetitive
- ⚙ Monotonous
- ⚙ Dangerous
- ⚙ Error-prone

COBOTS CAN:

- ⚙ Amplify human strengths
- ⚙ Be a free-standing/moving machine
- ⚙ Be an exoskeleton
- ⚙ Customize



SKILLS HUMANS BRING:

- 🧠 Dexterity
- 🧠 Creativity
- 🧠 Reasoning
- 🧠 Critical Thinking

HUMANS CAN:

- 🧠 Ensure cobot condition
- 🧠 Ensure worker safety
- 🧠 Train (including reprogramming)



COBOTS AND WORKERS TEAM UP FOR:

- Accuracy
- Flexibility
- Speed
- Strength

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?

(2017 annual supply, thousands of units)

- Automotive (126)
- Electrical/electronics (121)
- Metal (45)
- Plastic and chemical products (21)
- Food and beverages (10)
- Other and Unspecified (58)

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

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