

OMRON



Cobra Hornet Quattro Viper Lynx



Cobra	eCobra	Hornet	Quattro	Viper	Lynx
					
Workspace [r] • 350 mm.	Workspace [r] • 600 / 800 mm.	Workspace [r] • 565 mm.	Workspace [r] • 650 / 800 mm.	Workspace [r] • 650 / 850 mm.	Autonomous Intelligent Vehicle (AIV)
Payload: • 5 kg.	Payload: • 5,5 kg.	Payload: • Up to 8 kg.	Payload: • Up to 6 / 15 kg. • Up to 4 to 10 kg.	Payload: • Up to 5 kg.	Payload: • 60 / 90 kg.
Rotation axis: • Yes	Rotation axis: • Yes	Rotation axis: • With / Without	Rotation axis: • With / without	Axis: 6 Articulated	Self-navigation software safely avoids people and obstacles
Version: Pro	Version: Lite, Standard and Pro	Version: Pro	Version: Pro	Version: Pro	Navigates through the use of a digital map
Ethernet IP: ePLC, ePLC I/O	Ethernet IP: ePLC, ePLC I/O	Ethernet IP: ePLC, ePLC I/O	Ethernet IP: ePLC, ePLC I/O	Ethernet IP: ePLC, ePLC I/O	Runtime of up to 19 hours a day
Capacity: • Up to 80 p/min	Capacity: • Up to 80 p/min	Capacity: • Up to 180 p/min	Capacity: • Up to 200 p/min	Capacity: • Up to 60 p/min	On-board power supply
Repeatability: • +/- 0,015 mm.	Repeatability: • +/- 0,017 mm.	Repeatability: • +/- 0,1 mm.	Repeatability: • +/- 0,1 mm.	Repeatability: • +/- 0,02 mm.	Call Button Door Box MobileEyes
Protection: IP20, IP65 Clean Room 10	Protection: IP20, IP65 Clean Room 10	Protection: IP67 / IP65	Protection: IP67 / USDA	Protection: IP40, IP65 Clean Room 10	MobilePlanner Enterprise Manager

Adept Anyfeeder



Adept FlexiBowl



Capacity (max.)

- 1,5 kg.
- 10 kg.
- 15 kg.

Capacity (max.)

- 3 kg
- 5 kg
- 6 kg

Field of Vision

- 100 x 135 mm
- 240 x 320 mm
- 340 x 430 mm

Acceptance (range)

- diameter :
- 350 mm
 - 500 mm
 - 650 mm
 - 800 mm

Pneumatic
Serial
Digital I/O:
8 Inputs
12 Outputs

Interfaces
Ethernet
Digital I/O:
5 Inputs
5 Outputs



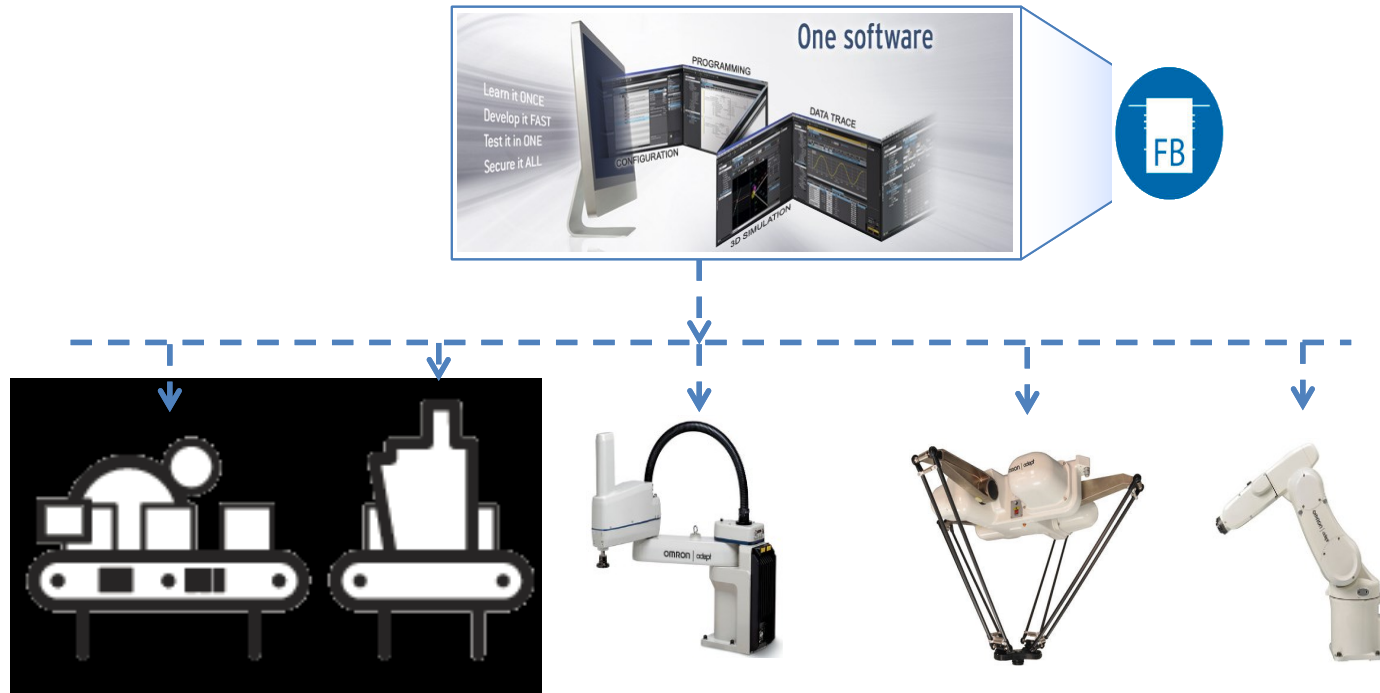
Note: Delivered by Adept



Programming Philosophy

Omron – programming Philosophy **OMRON**

Automation and Robotics Programming Skills





eCobra

eCobra SCARA Robot Series

Designed for secondary Food Packaging



- ✓ All amplifiers and controls are fully integrated in the robot to maximize valuable floor space and reduces installation costs (cables, control cabinets, labor, etc.).
- ✓ Compact system footprint, saving valuable floor space while minimizing installation cost and complexity
- ✓ Degree of freedom: 4 axis (X, Y, Z & R), R: 600 mm / 800 mm.
- ✓ Payload: 5.5 kg.
- ✓ Standard, IP65 and Clean Room 10
- ✓ Three versions (Lite, Standard and Pro) based on a common hardware platform.
- ✓ Advanced features such as direct PLC programming is included in the Standard and Pro version?
Minimize training and implementation time using familiar ladder logic programming language into machine controller

Application “Flexible feeding”

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A blurred image of a white industrial robotic arm with a black cable, positioned diagonally across the frame. The background is a light blue gradient.

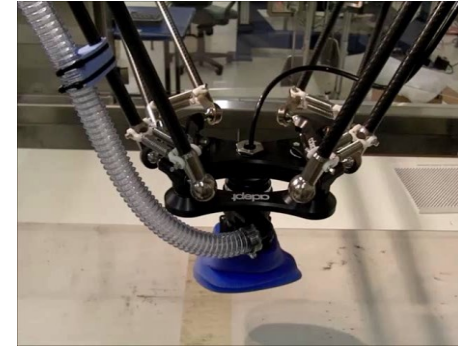
**Flexible parts feeding
and handling**



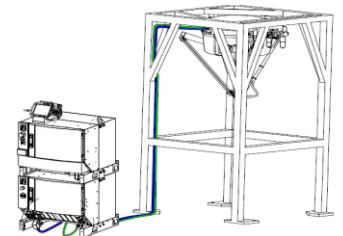
Quattro

The Omron Adept Quattro

Designed for primary and secondary Food Packaging



- ✓ Patented four-arm design and fastest robot on the market (200 cycles / min)
- ✓ Amplifiers are fully integrated in the robot to maximize valuable floor space and reduces installation costs (cables, control cabinets, labor, etc.)
- ✓ Degree of freedom: four axis (X, Y, Z and R) R: 650/800 mm.
- ✓ Payload: 15 kg.
- ✓ Standard, IP65 / IP67 / USDA (PRIMARY FOOD HANDLING, meat and poultry processing.
- ✓ Advanced features such as direct PLC programming is included in the Standard and Pro performance tiers- minimize training and implementation time using familiar ladder logic programming language existing PLC

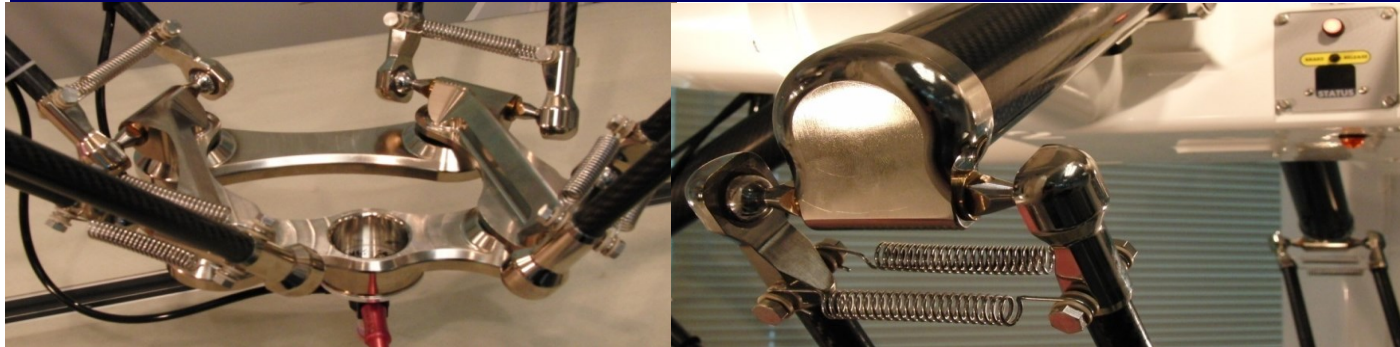


Sanitary Design



- Designed to improve cleanliness, safety, and quality for consumers
- Quattro s650HS is USDA accepted for meat and poultry handling
 - IP wash down (robot offers IP-66 protection; platform offers IP-67 protection)
 - Chemical resistance
 - Disassembly without tools
 - Ease of inspection

Quattro is the First & Only USDA Accepted Parallel Robot

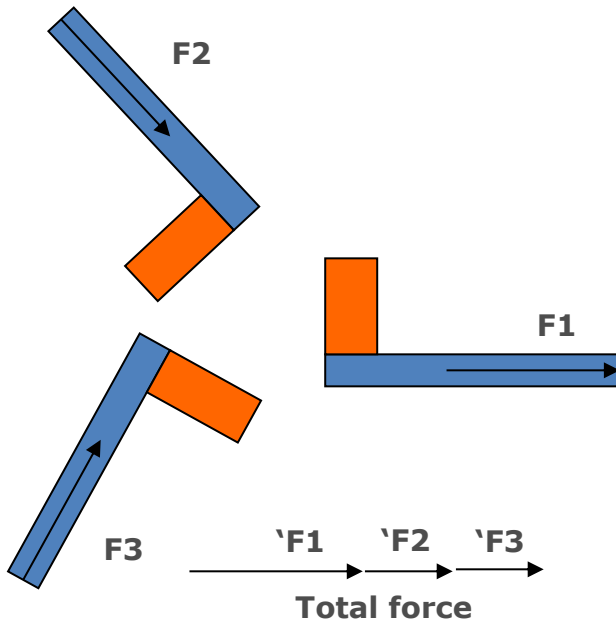


Quattro vs. Delta Robots

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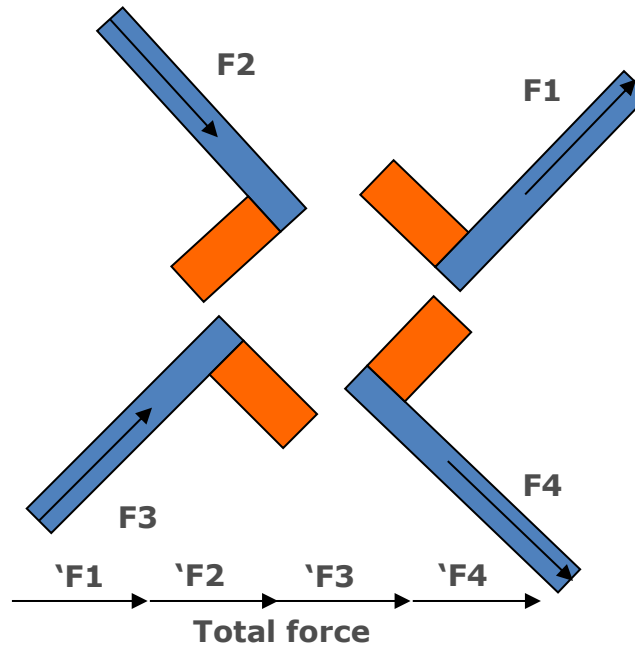
Four arms and motors enable greater force for higher accelerations and speeds.

Standard Delta Robot

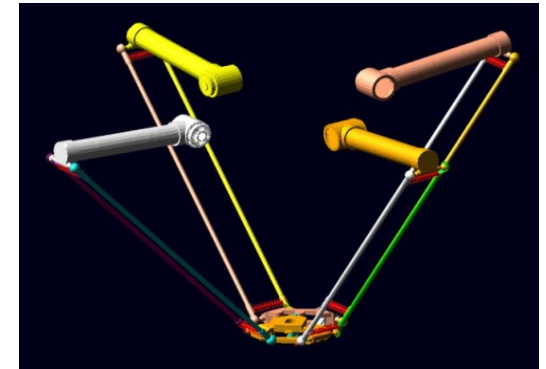


Simplified top view

Adept Quattro Robot



Adept Quattro's force
is up to 1.5x greater!



Adept Quattro is the fastest industrial robot in the world

Quattro vs. Delta Robots

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Workspace
Performance
Continuity

Delta Picker

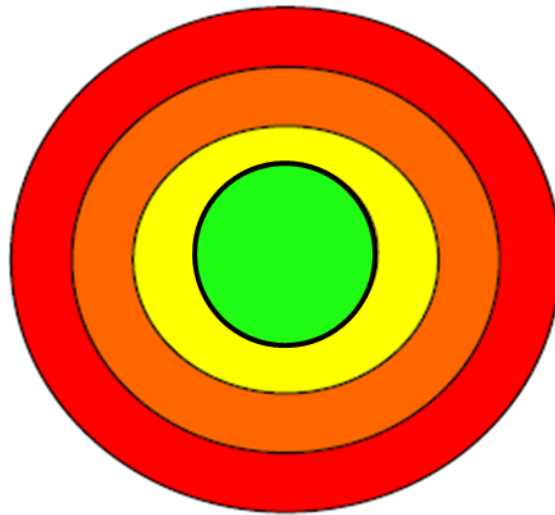
Acceleration:

Red: 60 m/s²

Orange: 70 m/s²

Yellow: 80 m/s²

Green: 100 m/s²



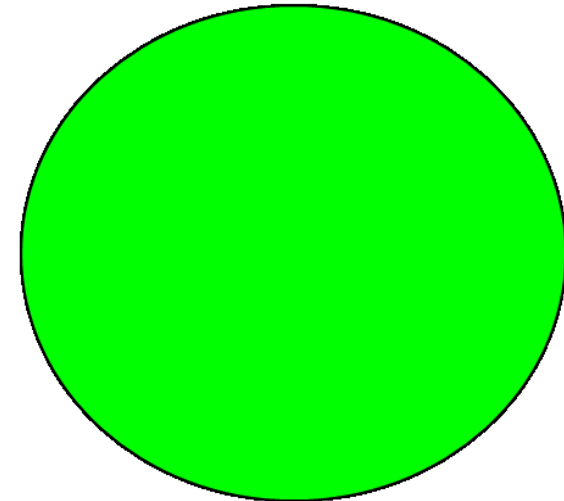
Sustained PPM 100..160

Burst PPM +10%?

Quattro

Acceleration:

Green: 150 m/s²



Sustained PPM 120.. 230

Burst PPM + 20%?

Adept Quattro is the fastest industrial robot in the world

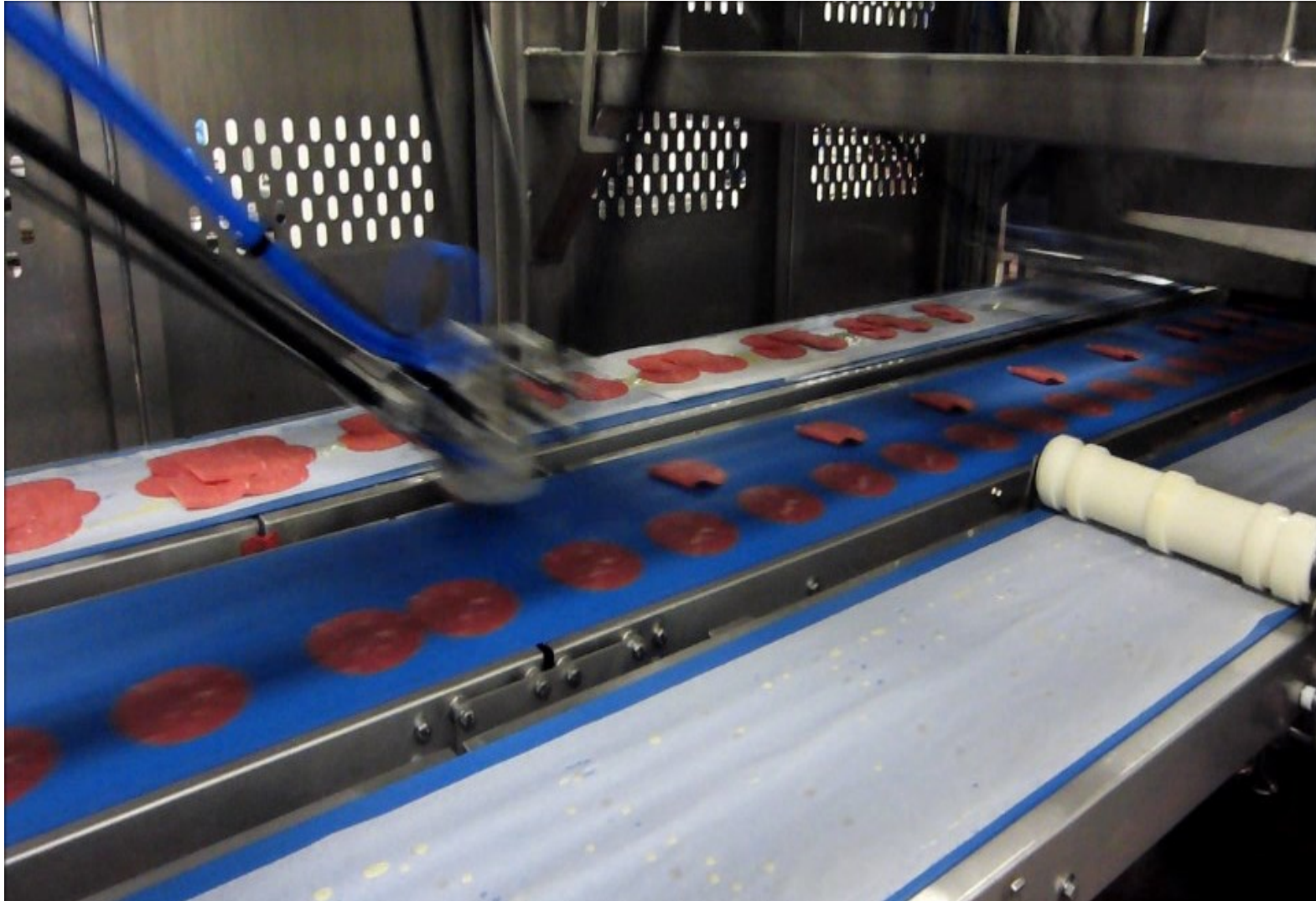
Quattro USDA

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Application “Meat handling”

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High-Speed motion

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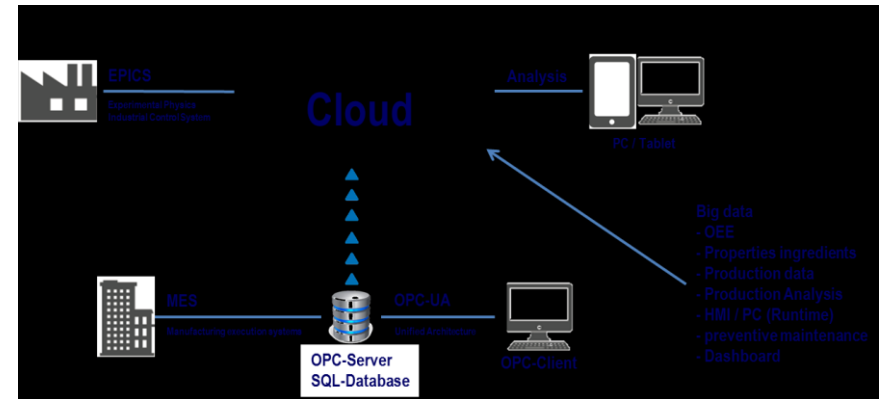




Solutions

Solution 1

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EtherCAT



Motion



Safety



Vision



Sensing



Cobra / eCobra



Hornet



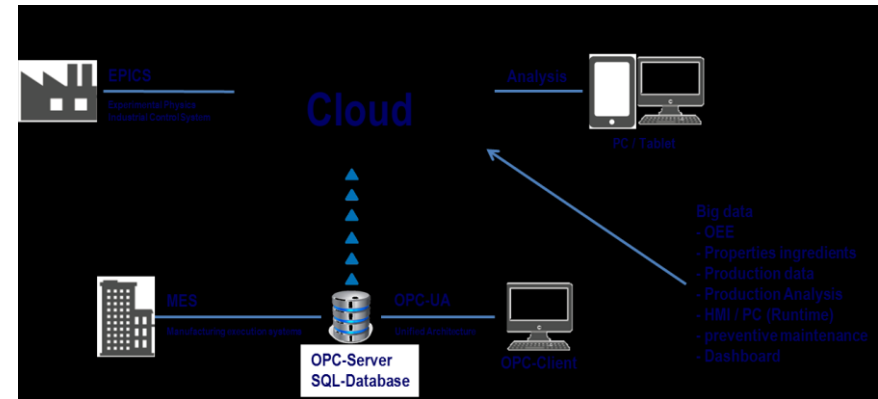
Quattro



Viper

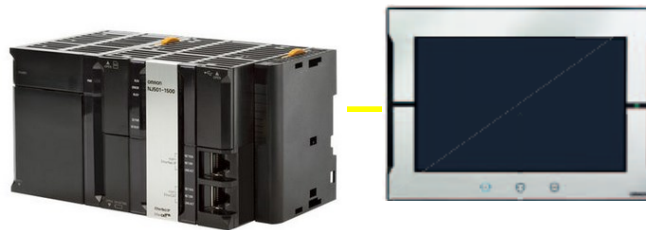
Solution 2

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SYSTMAC

NJ/NX



EtherCAT



Motion



Safety



Vision



Sensing



Cobra / eCobra



Hornet



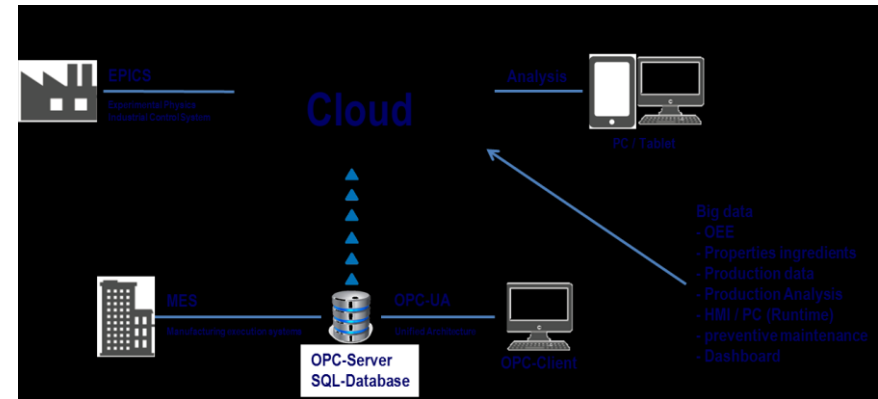
Quattro



Viper

Solution 3

OMRON



SYSTMAC

NX1P



EtherCAT



Motion



Safety



Vision



Sensing



Cobra / eCobra



Hornet



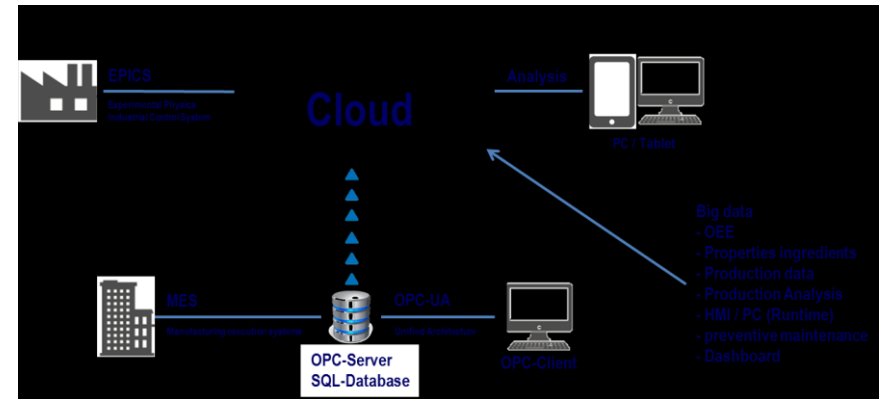
Quattro



Viper

Solution 4

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SYSTMAC

IPC
NJ / NX
NX1P



EtherCAT



Motion



Safety



Vision



Sensing



Controller



IPC



Cobra / eCobra



Horner



Quattro



Viper

FireWire



Lynx mobile robot

Lynx

Autonomous Indoor Vehicle (AIV)

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adex



Optional

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- ✓ Call Button/Door Box



Optional

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- ✓ Class 100 Cleanroom option



Specification

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Weight	60 kg
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Max Payload	
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Lynx MH60	60 kg
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Lynx MH90	90 kg
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Maximum speed	
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Lynx MH60	1.8 m/s
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Lynx MH90	1.35 m/s
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Power	
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Battery	22-29 VDC
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Runtime	13h Continuous / 19h Standby
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Battery Life	7 years
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Auxiliary Power	5, 12, 20 VDC
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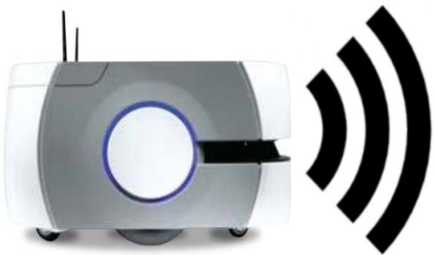
Mobility	
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Tires	Non marking rubber
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Suspension	Passive
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Steering	Differential
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Turning Radius	0
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Example of “Pickup and delivery” **OMRON**

Customer example – warehouse

Vehicles transport totes from an Automated storage and retrieval system to manual sorting stations.

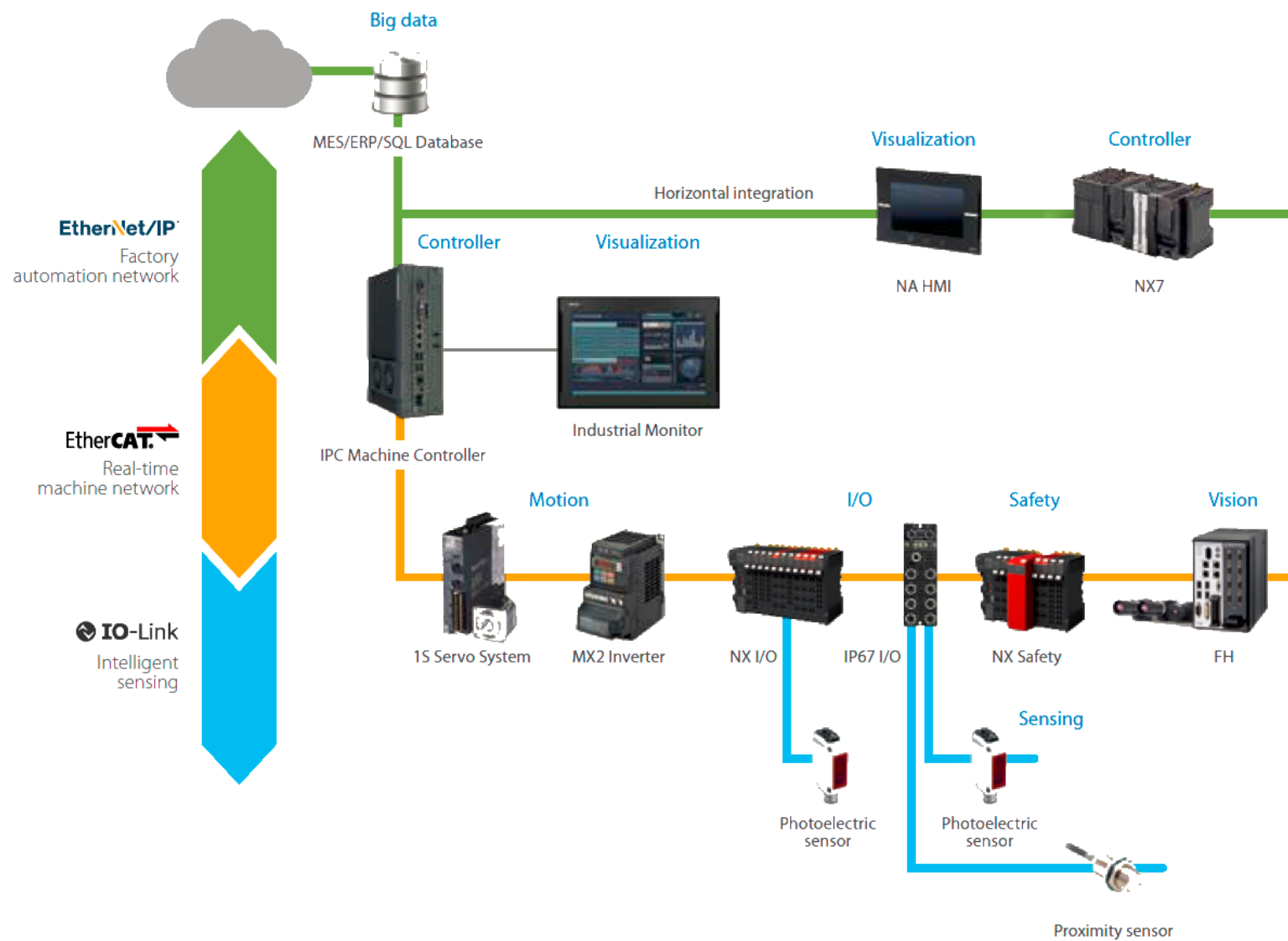
Vehicles pick up completed package and deliver to the exit (fixed) conveyor





Sysmac Platform

Sysmac Integrated Platform



Automation Systems

- HMI (Human-machine interface)
- Scada systems
- Machine Control / PLC
- Motion and Inverter control
- Robotics
- Remote I/O
- Safety

Sensing

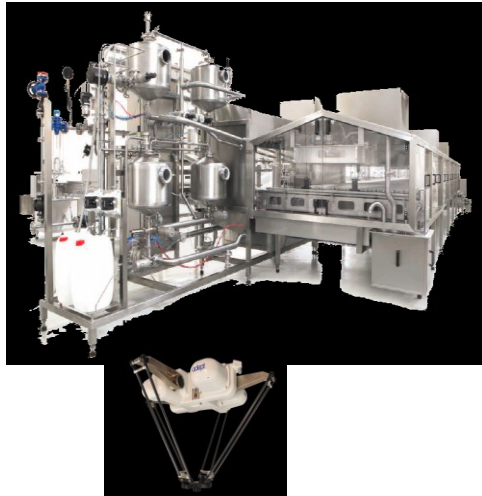
- Photoelectric Sensors
- Inductive Sensors
- Inspection (Vision)

Safety

- Safety Controller and Modules
- Emergency Stop Switches
- Limit and Door Switches
- Safety Sensors

Control and Switching Components

- Power Supplies
- Temperature Controllers
- Timers and Counters
- Relays
- Low-Voltage Switch Gear
- Pushbutton Switches



Delta 3 "Hornet"
Delta 4 "Quattro"



SCARA "Hornet"

Six - Axis "Viper"



Linear Axis

Delta 3 "Hornet"
Delta 4 "Quattro"

Manufacturing Process

Primary packaging

Secondary packaging

Final packaging



