



**CSI 4.0**  
Technologies Numériques



## Product overview

Everything from a single source!  
The Digital Robot Platform.

Economical. Flexible. Efficient.

# Your advantages at a glance

The lowest lifetime costs on the market -  
What makes our products **unique**.

## Highest efficiency in the entire industry

Minimal purchase and maintenance costs with a 6-year warranty on the drive train.

Maximum service life and high efficiency thanks to the planetary gearboxes.

## Maximum flexibility in production

Fast setup, programming and operation without coding know-how.

Central control software with AI support at all software levels.

## Maximum efficiency in project planning

-85% Less effort thanks to preconfigured robot accessories and automation modules.

No additional project planning costs thanks to CE-certified automation modules.



Automation helps us to increase quality while remaining flexible for different customer requirements.  
The system is exactly what we needed



Beat Glauser  
CTO, MBV AG

# Our products & services



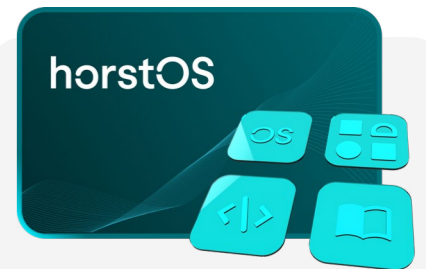
## Digital Robots

Our 6-axis robots for use in harsh industrial environments with ranges of 600 to 1500 mm and maximum payloads of 3 - 15 kg.



## Panel & Control

Control system with high-resolution control panel and a large number of interfaces for configuring automation projects without an additional PLC.



## Software

Central control software with AI Copilot and seamless integration of peripheral devices for efficient project planning, programming and operation of automation solutions.



## Component Kits

Seamless integration of robot accessories thanks to mechanical adapters, plug-in connections, defined interfaces and software plug-ins.



## Solution Kits

CE-certified automation modules specially tailored to your application with completed risk assessment.



## Services

Individual support at eye level, including feasibility analyses and comprehensive expert support at application level.

# What does a Digital Robot offer?

## Best performance with unique drive technology

Digital Robots rely on proven industrial planetary gearboxes combined with patented coupling gearboxes and optimized by machine learning for outstanding performance.

## At home in harsh industrial environments

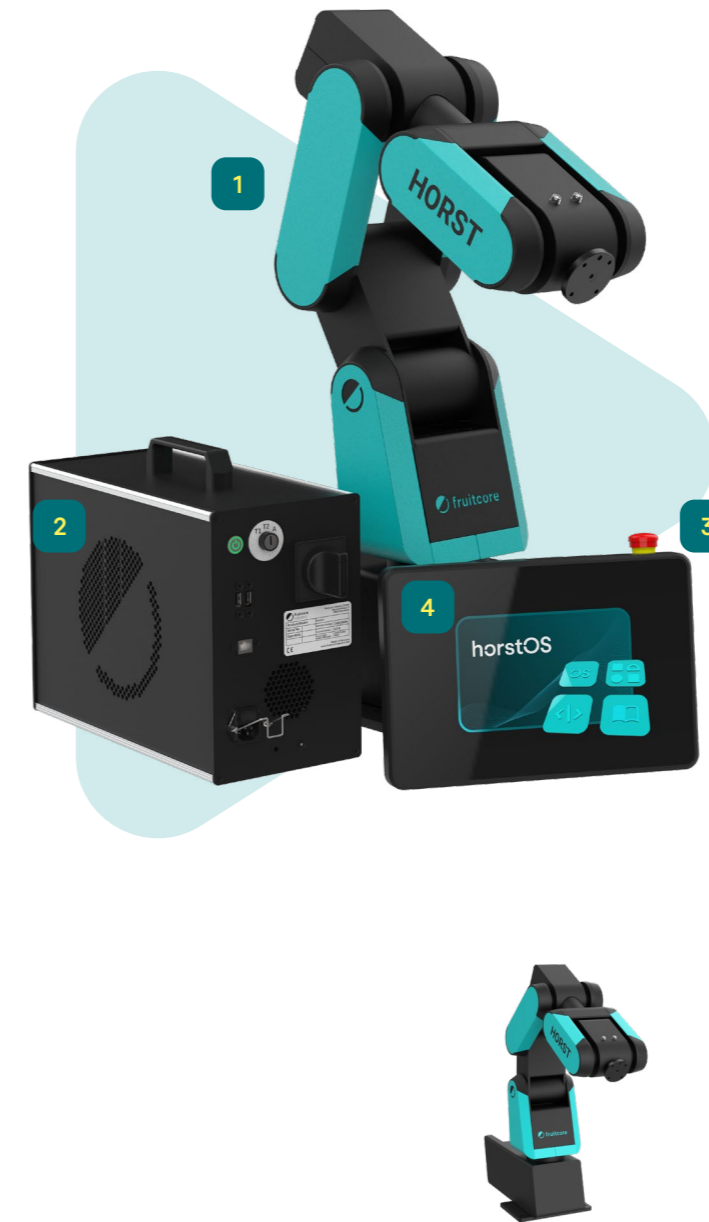
Chips, lubricants and coolants are no problem thanks to the smart design. The robust design of the robot allows it to be used in harsh environments.

## Guaranteed durability with high precision

Maintenance-free and low-wear gearboxes with > 50,000 h service life. High process reliability thanks to consistent precision over the entire service life

## Shortest set-up & programming times

Central control software, from project setup including component management, to graphical robot programming and customizable process control, makes programming experts superfluous in day-to-day business.



## With a Digital Robot you get:

1. Industrial robots HORST600, HORST1000, or HORST1500
2. Compact control system "Control"
3. Ergonomic operating device "Panel"
4. Central control software horstOS



	HORST600	HORST1000	HORST1500
<b>Axes</b>	6	6	6
<b>Maximum range</b>	584 mm	1018 mm	1485 mm
<b>Load capacity</b>	3 kg	8 kg	15 kg
<b>Repeatability</b>	± 0,05 mm	± 0,05 mm	± 0,05 mm
<b>Protection class</b>	IP54	IP54	IP54
<b>Weight</b>	30 kg	70 kg	99 kg

## Digital Robot - Panel and Control

# Powerful control unit with ergonomic operating panel

With the basic equipment of a digital robot, you receive a control unit with extensive industrial interfaces and a lightweight operator panel with a high-resolution touch display. The powerful control unit enables a variety of applications to be implemented entirely without higher-level control. Programming is done on the large-format operator panel, either through the touch display or by connecting a mouse and keyboard.



## Your benefits



### PLC-free automation

Easy integration of peripheral devices and implementation of complete automation solutions without higher-level control thanks to extensive interfaces.



### Seamless integration & maximum flexibility

Control can be easily integrated into your higher-level control systems (PLC) via Profinet and Modbus. Additionally, extensive external control via XML-RPC is also possible.



### User-friendly operation

Large-format 13.3 inch display with short touch response times. You can display the entire automation process clearly and flexibly in 3D.



### Easy commissioning

You can easily handle and position the compact control unit, Control. To commission it, you simply need to connect Control to the 230 V power supply.

## Panel - Technical specifications

<b>Dimensions</b>	331 mm x 215 mm x 73 mm
<b>Protection class</b>	IP20
<b>Control elements</b>	Safety-relevant emergency stop, 3-point approval button
<b>Display</b>	13.3" Touchscreen (Full-HD)
<b>USB-Ports</b>	2x USB 3.0 port for mouse and keyboard use
<b>Cabling</b>	Cable between operator panel and control with a length of 5 m



## Control - Technical specifications

<b>Dimensions</b>	313 mm x 174 mm x 446 mm
<b>Weight</b>	10 kg
<b>Protection class</b>	IP20
<b>Compatibility</b>	Standard for all robot models
<b>Power supply</b>	230 V AC, 50-60 Hz, typical: 250-500 W (depending on robot size)
<b>Number of I/O</b>	20 inputs   18 outputs (24 V / 7 A) 2 inputs   2 outputs (24 V / 2.5 A) at robot flange
<b>Number of safety I/O</b>	6 inputs   8 outputs according to DIN EN ISO 10218-1; PL d (configurable)
<b>Communication</b>	TCP/IP 100-Mbit/s Ethernet, XML-RPC primary interface (optionally available)
<b>Fieldbuses</b>	Profinet, Modbus (optionally available)
<b>USB-Ports</b>	2x USB 3.0 Port
<b>Cabling</b>	Cable between robot and control with a length of 3 m



# Central control software horstOS

Transform your automation into a flexible and user-friendly solution with the central control software of the Digital Robot, your key to easy automation. The central control software enables components to be set up easily, individual processes to be programmed intuitively and the entire system to be controlled flexibly.



## Your benefits with horstOS



### Fastest integration through efficient project setup

Thanks to the quick setup of components using Project Setup, you save time during setup. Additionally, you maintain an overview of all overarching project settings.



### Easiest programming with digital twin on the operator panel

Depending on your expertise, the program is created graphically or textually and enables realistic simulations and feasibility analyses in the 3D world.



### Most efficient process control through reduced operator view

Minimize errors and navigate easily during operation using the customizable user interface with essential functions.



### Best support through extensive knowledge base and the AI Copilot

You receive assistance thanks to the integrated AI Copilot, avoiding support calls through context-sensitive real-time responses. Error detection and correction suggestions help you to rectify errors quickly.

## Project Setup

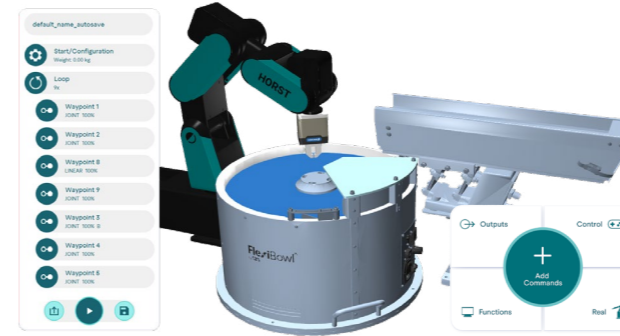
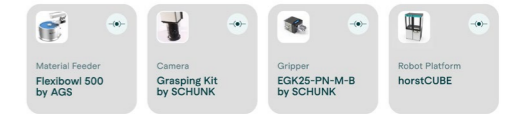
Simply add components and manage them through predefined standards and auto-complete functionality. Any web services and software tools as well as component and machine interfaces can be seamlessly implemented in horstOS.



### Robot-System



### Component-Management

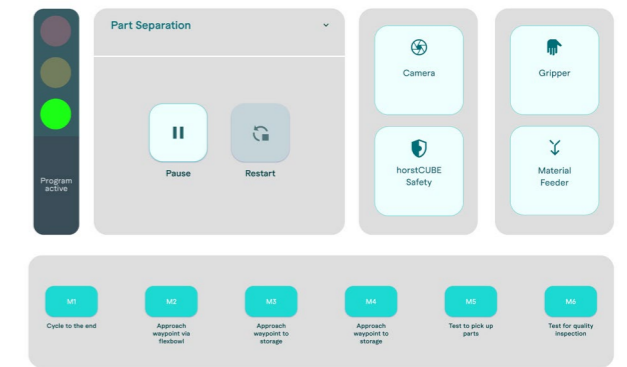


## Program Generation

Running simulations in a 3D world on the Panel enables you to implement entire applications quickly and easily. Experts use textual programming for the rapid creation of complex programs. By using graphical elements, you can design programs to be user-friendly, customizable, and understandable.

## Process Control

The user interface is customized according to your process, enabling quick intervention on important parameters. An optimized user interface minimizes errors, simplifies operation, and thereby reduces the training effort for operating your application.



## AI Copilot

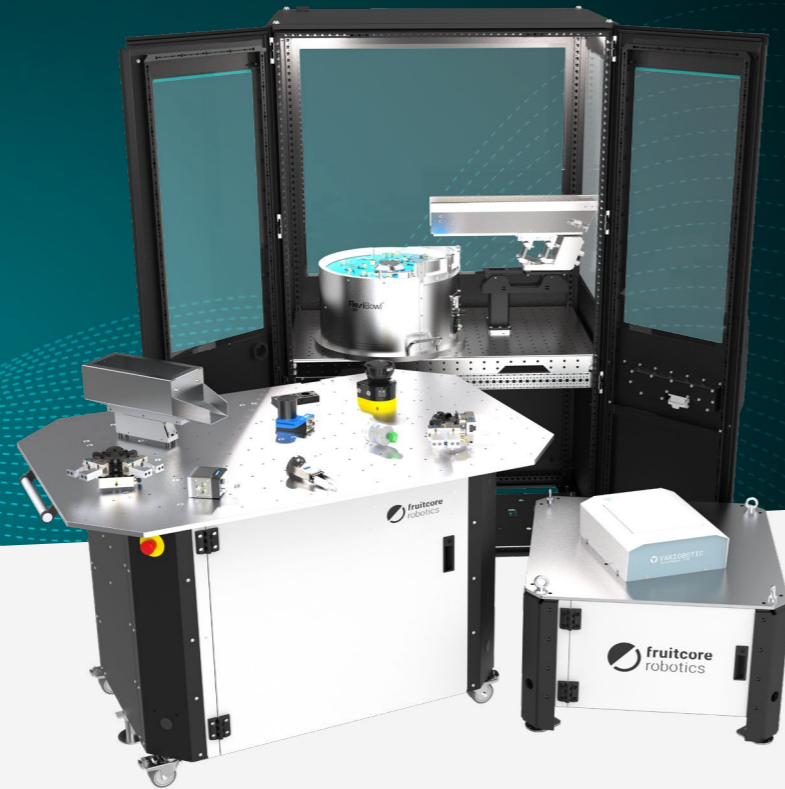
Benefit from the best context-sensitive real-time support. Program more efficiently through AI optimization of programs and AI-assisted creation of program modules and functions.



## Component Kits

# Ready-to-use accessories

Benefit from our pre-planned and pre-configured accessory solutions, the Component Kits, and achieve maximum efficiency when implementing individual automation solutions. Thanks to mechanical adapters, plug-in components and predefined interfaces and programs, you can rely on a modular system that merges seamlessly with our central control software.



## Your benefits with Component Kits



### Guaranteed functionality

The selection of Component Kits is optimally coordinated so that you can implement a wide range of applications with the components and digital robots.



### Simplest installation

You can install Component Kits on the robot in just a few minutes. All accessories required for mounting and cabling with the Digital Robots are already included in the kit.



### Most efficient integration

Thanks to sample programs and comprehensive documentation, you can also quickly set up Component Kits on the software side and integrate them into the program sequence.



### Uncomplicated processing

With the Component Kits you simplify the purchasing process for your automation project, as you get everything from a single source and do not have to work with several suppliers at the same time.

## Robot base



### Mobile robot base

MRB S, MRB M and MRB L (optionally with security scanner)



### Mobile robot base with safety fence

MRB S, MRB M and MRB L with safety fence & operating console



### Modular robot base horstCUBE

Expandable robot base with safety technology, operating console and height-adjustable base plate



### Robot base

Robot base perfectly matched for machine loading

## End of Arm

Ready to use



### 2-jaw parallel gripper (electric)

Electric 2-finger gripper incl. standard set of gripper jaws, adapter, screws, connection cable and assembly instructions



### Vacuum gripper (electric)

Electric vacuum generation incl. 2 suction gripper adapter, screws, connection cable and installation instructions



### Double gripper with blow-off unit (pneumatic)

2x electric 2-finger gripper with standard set of gripper jaws, blow-off unit, adapter, screws and assembly instructions



### Gripper for small components (electric)

Versatile 2-finger small parts gripper for maximum workpiece diversity with maximum process reliability

## Robot guidance & safety

Ready to use



### Robot guidance system



### Grasping Kit



### Safety laser scanner

## Others

Ready to use



### Part Separation Varioshaker



### Part Separation Flexibowl



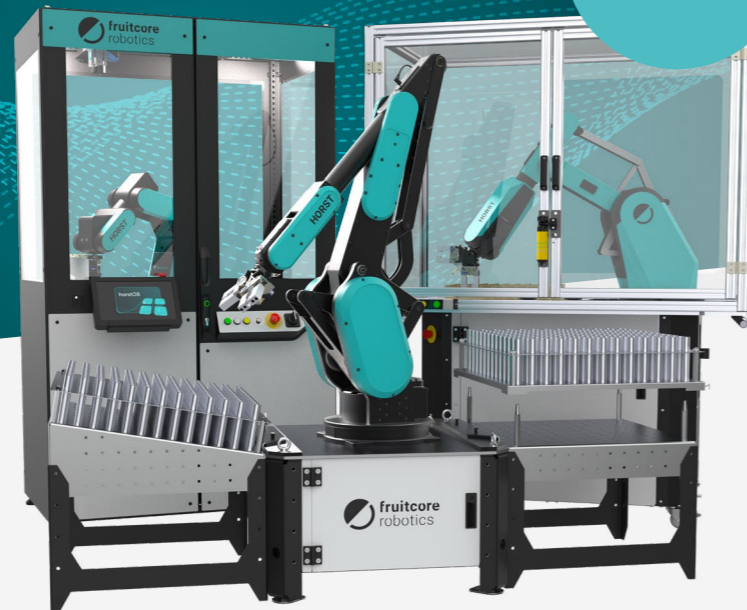
### Education Package



## Solution Kits

# Automation modules with CE certification

Are you looking for maximum efficiency in planning and the shortest possible installation and changeover times? Our preconfigured Solution Kits offer you the solution for your use case. The CE-certified automation modules are specifically tailored to specific production scenarios. You receive everything you need for rapid integration into your workflows and processes and are also extremely flexible.



Ready to use

## Your benefits with Solution Kits



### Safe operation according to ISO 10218-2

You receive your automation module including a completed risk assessment and CE certification.



### Lowest project costs and time

Access predefined programs, interfaces and plug-in control solutions.



### High reliability & cost transparency

We carry out free feasibility analyses on your company's real system.



### High flexibility

Take advantage of our modular robot base and flexible functional assemblies.



### Return on investment within 6 months

Effectively save costs by amortizing your Solution Kit in less than 6 months.



### Simple control without additional PLC

Control the entire solution via a central control software for robots and components.

## Our Solution Kits



### Pick and Place

The best basic equipment for a safe, flexible, quick and easy introduction to robot-supported automation solutions. Perfectly suited for use in training and educational institutions.



### Part Separation I

Part separation for separating components that can be easily recognized in transmitted light based on their outer contour. Best cycle time and fast teach-in of new components in under 15 minutes.



### Part Separation II

Separating complex, dimensionally unstable components is no problem with this setup. Thanks to the AI software and flexible gripper, different parts can be easily recognized and gripped from a bulk material.



### Part Separation III

The Solution Kit for 3D pick & place tasks makes it possible to precisely locate undefined, tilted and layered parts, grip them accurately with the vacuum gripper and process them flexibly.



### Machine Tending I

The mobile automation module for machine loading with maximum flexibility. The Solution Kit can be flexibly positioned on machine tools using a locking device.



### Machine Tending II

The modular Solution Kit can be configured as required and enables maximum autonomy times thanks to flexible parts provision. Short machine intervention times can be achieved thanks to the double gripper.

## Services

# Individual support on equal footing

Our range of services enables you to efficiently plan your automation projects at the best life cycle costs in the industry. Thanks to our comprehensive range of training courses, you can quickly get to grips with robotics and new subject areas.



## Your benefits with our services



### Best life cycle costs

in the entire robotics industry with our Care package. For maximum availability, we recommend our Care Plus package.



### Most efficient project planning

thanks to feasibility analyses with individual support in the implementation of your automation solutions.



### Easy access

into robotics and new subject areas with our wide range of training courses. This includes webinars, on-site training and our Academy.



### Highly qualified support

with the integration of your solution, thanks to the extensive know-how of our partner network in automation processes.

## Our Services



### Robot Services

In addition to software updates and warranty extensions for the entire robot system, our care packages also include a wear parts warranty and technical advice from our robot experts.



### Training Services

In addition to our Academy, we offer basic online training and a wide range of additional training courses in the areas of textual programming, interfaces and security technology.



### Kit Services

Based on our Solution Kits and Component Kits, we support you with feasibility analyses, assembly, cabling, setup and configuration of your automation module.



- ✓ Cost efficiency through maintenance service and lifecycle management with IIoT platform
- ✓ Feasibility analyses reduce your project implementation risk and ensure your success
- ✓ Customized solutions: Project planning support enables customized automation solutions for you





## **fruitcore**robotics

The Digital Robot Platform of fruitcore robotics offers you all modules for optimal automation, from project planning to ongoing operation. It includes not only industrial robots, but also a central control software, pre-configured automation modules and supporting services.

You benefit from:

- Highest economic efficiency due to minimal acquisition and maintenance costs with a long service life - usual ROI in less than 6 months
- Highest flexibility through quickest and easiest set-up as well as programming without coding expertise - reprogramming and new programming of the process in less than 60 minutes
- Highest efficiency through the simplest and fastest project planning with patented preconfigured automation modules - only 15 % of the usual effort compared to standard market integration

The Digital Robot Platform of fruitcore robotics makes it easy for you to implement camera-based quality inspection, machine loading and unloading, dosing and gluing, flexible parts separation and pick and place processes.

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