

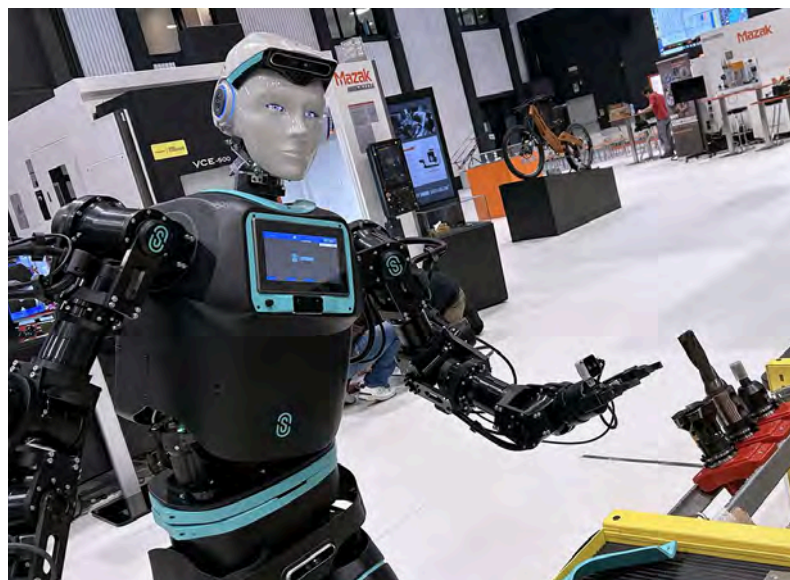
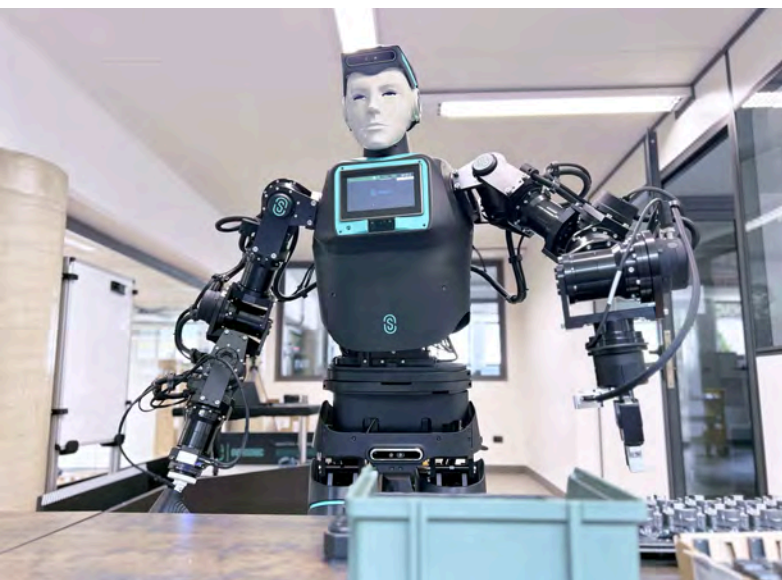
ROBEE

Series R

HUMANOID  
COGNITIVE  
ROBOT

06/2025

DESIGNED BY  
OVERSONIC



## THE CHANGING INDUSTRY

The industrial sector is currently facing challenges that are no longer marginal but structural. The rise in workplace accidents and the spread of stressful working conditions point to an increasing unsustainability of many operational tasks. Added to these critical issues is the gradual reduction in available workforce: in the coming decades, the ratio between active and inactive population will continue to decline, making it increasingly difficult to fill essential roles in production processes.

The ongoing transformation is not only technological but also social. Work environments are evolving, and so are people's expectations. Industry is thus required to ensure greater safety, improved physical and mental well-being for workers, and operational continuity that can no longer rely solely on human availability. Digitization and automation have long been a strategic direction for industrial development, but adopting truly effective solutions now requires a paradigm shift. Automation alone is no longer enough: systems must be able to interact, learn, and adapt. Artificial intelligence and cognitive robotics can now take on complex tasks in dynamic environments — not by replacing humans, but by freeing them from activities that limit their potential.

This evolution is especially urgent in contexts where tasks are repetitive, strenuous, or prone to high error margins. Technology can improve not only productivity but also process sustainability and the quality of work. The turning point lies in machines' ability to become autonomous, safe, and intelligent resources capable of collaborating in shared environments.

**RoBee**, the cognitive humanoid robot developed by Oversonic, is a concrete response to the emerging needs of the industrial world. Designed to operate alongside people, RoBee embodies a new generation of collaborative technologies capable of contributing to a better balance between productivity, human well-being, and operational continuity.

**Oversonic Robotics Srl** Società Benefit is a software company that designs and develops cognitive computing systems, with a particular focus on robotics applications. Founded in 2020, the company established its technological and production center in Carate Brianza (MB) and operates from two additional sites: a representative office in Milan and an operational office in Rovereto (TN), within the Mechatronics Hub of Trentino Sviluppo.

The company employs a team of 65 people, including about 50 software, mechanical, and electronics engineers from various parts of the world. While naturally oriented toward international collaboration, the company maintains a strong Italian identity, offering products that represent the creativity and ingenuity of Italian entrepreneurship and technological know-how.



Contact us for a demo

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# A ROBOT AS AN OPERATIONAL ALLY

RoBee operates in environments designed for humans, improving safety, operational efficiency, and the overall sustainability of production activities. Its flexible and modular architecture allows it to integrate into existing processes without the need for structural changes. Thanks to its cognitive platform, it can understand its context, make autonomous decisions, and reconfigure its behavior based on operational needs.



## Enabling factors

Cognitive robotics
Artificial intelligence applied to industrial processes
Human-machine collaboration in shared environments
Integration into existing workflows
Operational adaptability
Technological sustainability
Continuity and production resilience
Flexible use (SMART processes)

## Key features

Bimanual manipulation with high precision
Autonomous navigation (AMR) in shared environments
Computer vision for environment analysis and recognition
Integrated voicebot for natural voice interaction
Real-time data analysis and telemetry
5G-ready connectivity
Integration with ERP/MES systems
24/7 predictive maintenance
Certified safe operation, even in complex environments
Remote control

Front



Arm reach



Body advancement



Leg squat



### Body

Weight	Up to 180 kg
Height	162 - 190 cm
Footprint	69 * 78 cm
Arm reach	90 cm

### Navigation base

Maximum speed	1.2 m/s
Maximum slope	8%
Differential drive	Included
Omnidirectional drive	On request
Sensor obstacle detection SIL 3	Included

### Integrated sensors

Motor controls	Power/force feedback
Navigation	Lidars and cameras
Vision & video streaming	Depth cameras
Thermal camera	Available on request

### Working environment

Type	Indoor
Operating T range	5 °C / 50 °C

### Connectivity

Wireless	WiFi 6, 5G ready
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### Power

Batteries included	2
Battery type	Lithium ion + Graphene supercap
Battery autonomy	Up to 8 hours (typical usage)
Auto recharge	Inductive
Supply voltage	AC 230 V
Quick battery charge	Included

### Manipulation

Cognitive accuracy	±3 mm
Deterministic accuracy	±1 mm
Repeatability	0.8 mm

### Max. Payload

Single arm	5 kg
Double arm	10 kg
Towable weight	50 kg

### Audio

Speakers	60 W
Microphone	Cardioid
Voicebot	Included



ISO 56002:2021 - 48001:2028 - 9001:2015 - 27001:2013 - 14001:2015  
 Machine Directive 2006/42/CE - D.LGS. 17/2010  
 EMC-EMI Compliancy  
 IPX4 Protection

