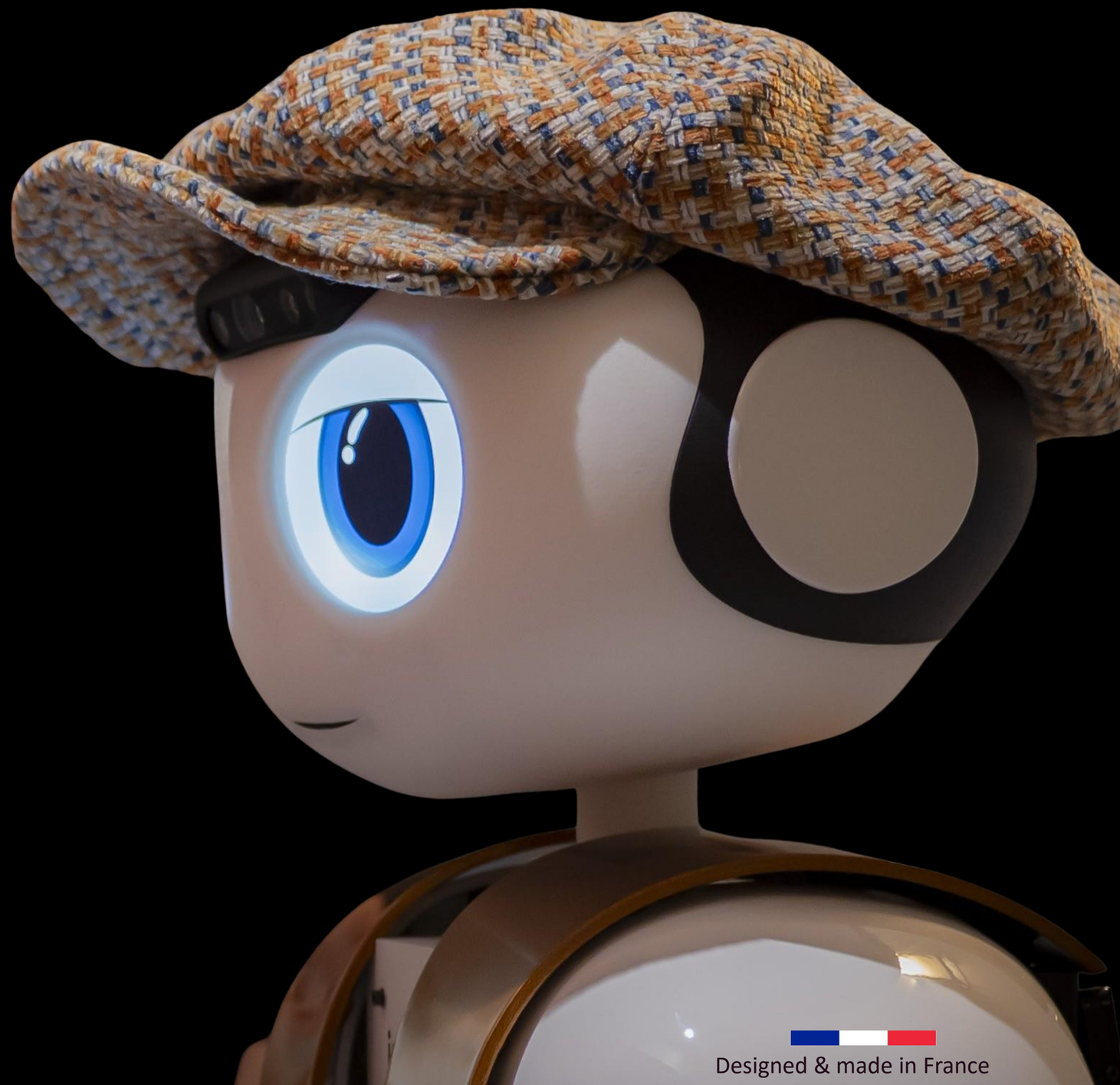
ONYRO

Wheeled humanoid robot for industry & retail

Autonomous & intelligent
Safe
Ultra-modular
24/7 operation
Powerful & economical
Easy maintenance
Third robot génération



Designed & made in France

Overview

ONYRO is a modular robot with 0, 1 or 2 seven-axis arms, transport trays or highly directional microphones for noisy environments.

6 cameras enable precise interaction with its surroundings. It assists people with all their tasks.

Mounted on a wheeled base that meets industrial safety standards, ONYRO carries up to 60 kg on its trays.

Smarter, more robust and safer, ONYRO redefines human–robot interaction through advanced AI models and next-generation engineering.



Key benefits



Intelligent autonomous mobility

Precise, safe autonomous navigation with dynamic path planning and obstacle management



Advanced handling with built-in 3D vision

A 3D camera at the end of each arm enables precise gripping from floor level to 2 m high



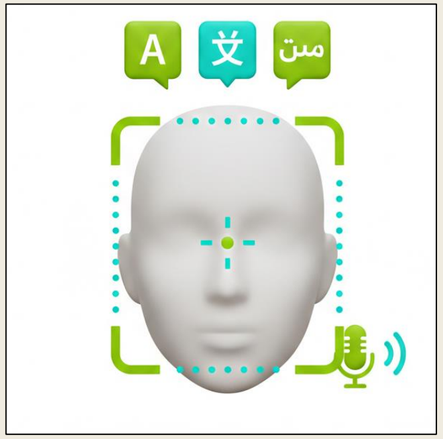
Modular architecture & adaptability

Scalable configuration and customised tools to suit operational needs and the environment



Powerful onboard intelligence

Onboard AI on an NVIDIA computer enables real-time behaviour without network access



Advanced human interaction

Vision, natural multilingual conversation, facial recognition and face tracking

Self-guided Navigation

ONYRO draws on ipsum tek's industrial expertise. It runs on an industry-proven mobile base. Developed by ipsum tek, this base meets the most stringent industrial standards for robustness and safety.



Unique capabilities: smooth navigation, continuous localisation
(the robot always knows where it is) and alignment with objects in its surroundings.

Industry ready

CONVERSATION

Natural dialogue using multiple LLMs in noisy environments. Multiple voices and languages, with 60 W audio output

INDUSTRIAL

Mobile base and arms that meet industrial standards.

GRIPPING AT ALL LEVELS

Grips objects from floor level up to 2 m high

FACE

Natural human–robot interaction. Blinking eyes. A socially acceptable face

LEARNING

Advanced vision-language models (VLMs).



24/7 OPERATION

without interruption. The robot can swap its own batteries

AI-DRIVEN ARM

AI-controlled object manipulation with a 3D camera at the end of the arm for high precision

NAVIGATION

Advanced 3D navigation: multiple sensors, LIDAR & cameras. Motion adapted to the presence of people.

Modularity

ONYRO adapts to your application.

Built on an industrial robot base with a spine for mounting equipment, it is available with:

- 0, 1 or 2 industrial 7-axis robotic arms
- Extra batteries the robot can swap itself
- A docking station for charging
- Additional load trays
- Grippers to suit the payload or gripping task
- Rugged 10-inch touchscreen tablet
- Fixed spine or Z-leg for gripping at every level
- Alignment module < 1 cm for precise manipulation

For integrators, ONYRO also adapts to the target application:

- Easy mounting on its Rexroth spine (sensors, IoT devices, specialist cameras, etc.)
- 4 networks for integrators: ETH, local Wi-Fi, CAN bus, I2C
- Documented APIs for every component
- ROS2



Example configuration:
2 arms with 7 DOF, fixed spine, 2 transport trays

Maintenance “one screwdriver”

Easy maintenance is one of ONYRO-G3’s key strengths. Its highly modular design allows all key components to be replaced using standard tools, most in 5 minutes or less.

Example replacement times:
Arm: 3 min
Drive module: 5 min
Gripper: 5 min
Gripper finger: 1 min
Computer and main electronics: 15 min



Easy maintenance, with no need for factory returns

Fleet Manager

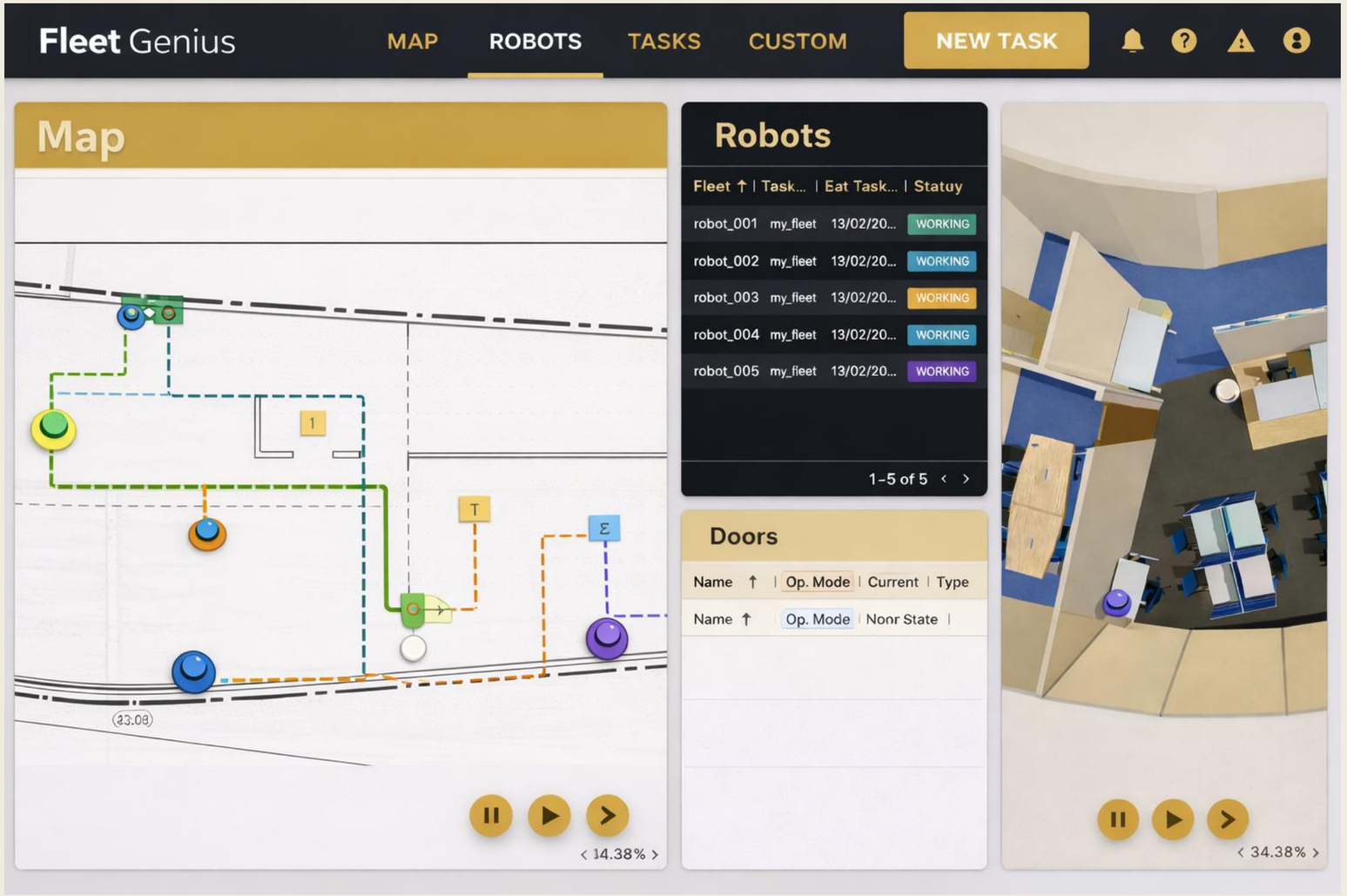
ONYRO can operate in robot fleets with centralised management.

Our fleet management software **FleetGenius©** provides detailed control of mixed mobile robot fleets.

Key functions

Optimised preferred routes, traffic control, bottleneck management, collision prevention, automatic task allocation, integration with doors, lifts, work cells, etc.

Fleet genius
AI ROBOT NETWORK MANAGER



Origins

AN INNOVATION BY IPSUM TEK

ONYRO is based on VECTURA.I, a modular architecture of interoperable hardware, software & AI building blocks.

An architecture that ensures innovation, scalability, architectural consistency and technological continuity.

ONYRO brings together autonomous mobility, robotic manipulation and onboard intelligence to deliver reliable, seamless human–machine interaction suited to demanding industrial environments.

ONYRO represents:

- 50,000 hours of R&D
- 12 configuration variants
- A mobile base with over 80 units deployed

Application areas

ONYRO offers unmatched versatility. Its stability and robustness make it a natural fit for industry, while allowing it to adapt to many other environments.



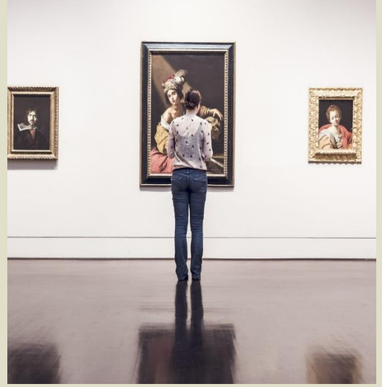
Industry 4.0 & Logistics



Hospitality, catering & Services



Health & Silver Economy



Public reception & events



Laboratories, Education, R&D



Commerce & Retail

Key specifications

- Fits within a cylinder 650 mm in diameter and 1,000 mm high (lowered position)
- Payload per robotic arm: 5 kg
- Transport payload: 60 kg
- Industrial arms. 7 DOF. Max. reach: 1,000 mm
- Interchangeable gripper to suit each task
- 2-DOF head (nod / shake). Animated eyes
- 3D cams: 2 for navigation, 1 in the head, 1 at each arm
- 4K HDR RGB camera. Wide angle. HFOV = 120°
- Audio: 4 directional mics, echo cancellation
- Low-distortion mono audio output: 60 W

- Z-leg adjusts robot height from 1m to 1.65m
- NVIDIA Orin NX Super 16 GB computer. 157 TOPS
- Motion: up to 1 m/s. Dynamic 3D obstacle avoidance. Optimised paths
- Mobile base safety: SICK safety LIDAR, PLd. CE, ISO EN 13849-1, IEC 62133
- Interface: rugged 10-inch touchscreen tablet. Removable, mounted on the back like a backpack
- 800 Wh, 24 V Li-ion battery. 3–12 h runtime depending on use and configuration.
- Automatic charging at a station or optional self-swapping batteries

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