FOURIER
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FOURIER GR-3

A Caring and Capable Companion

GR-3 Series Humaniod Robot

The GR-3 Series marks Fourier's third generation in humanoid robotics. Guided by the philosophy "Love, above all functionality," GR-3 redefines how humans interact with robots. The series combines a powerful technical foundation with a presence that feels more human. The lineup features GR-3 for interactive service and GR-3C for functional performance.

GR-3 "Meow-bot"

GR-3 is Fourier's first full-size "Care-bot" designed for wellness companionship. Beyond functionality, it is designed to foster emotional connection — introducing a new class of AI robots for human-centered scenarios.

GR-3C "Cosmo"

GR-3C builds on the standard model with an LED ring-head display and reinforced shell, supporting precise operation in complex environments. Its all-white finish and head design evoke an "astronaut" look, while the durable, easy-to-maintain outer shell ensures long-term reliability.

Groundbreaking Concept Innovation

Fourier has long been guided by a human-centered approach, designing robots to serve people first. Beyond pure functionality, we add the element of companionship. Human-robot interaction should surpass a simple user-tool relationship, but be both useful and full of care.

Social Companion

GR-3 is designed to engage with people in public settings. It can act as a service assistant, a comforting presence for children, or a responsive companion for the seniors.

Assistive Companion

GR-3C is expected to expand into assistive practices. Potential applications include research, high-risk operations, and rehab training, bringing support to both work and daily life.

Solid and Robust Performance Base

The GR-3 Series builds on two generations of innovation. It features advanced motion control, whole-body teleoperation, and a modular design that integrates sensors and computing units with ease, delivering both precision and reliability for real-world tasks.

Equipped with Fourier’ s high-performance actuators and multi-DoF dexterous hands, GR-3 handles complex operations with stability and accuracy. Its refined structure is lighter, more compact, and energy-efficient. Dual hot-swappable batteries keep the robot running around the clock, with faster charging and fewer swaps, ensuring uninterrupted performance.

Soft Design, Smart Technology

Beyond emotional intelligence, GR-3 features enhanced hardware and character-rich locomotion—enabling more intuitive and lifelike interactions at every touchpoint.

Drawing on training data and market feedback from its predecessors, the robots’ whole-body structure has been redesigned for greater flexibility and a more compact form. It features Fourier’ s high-performance actuators and multi-DoF dexterous hands, supporting a wide range of tasks from interaction and navigation to practical assistance.

The GR-3 Series can also support customizable features, including a lifelike standby mode. For further advanced configurations, please contact our sales team.

Advanced Feature: Whole-Body Teleoperation

The GR-3 Series supports whole-body teleoperation, enabling real-time mapping of human movements through high-precision motion capture and low-latency transmission.

By extending human reach beyond physical limits, it delivers a new level of interaction and collaboration across diverse scenarios.

Adaptive Framework, Faster Integration

Fourier prioritizes user experience. Based on feedback from previous generations, the GR-3 Series features an upgraded backend UI/UX and supports algorithm development on a client-server architecture.

Built as an embodied intelligence platform, GR-3 supports a wide range of algorithms and third-party applications. Its client-server architecture allows researchers, automation engineers and AI developers to get started quickly and tailor functions for real-world use.

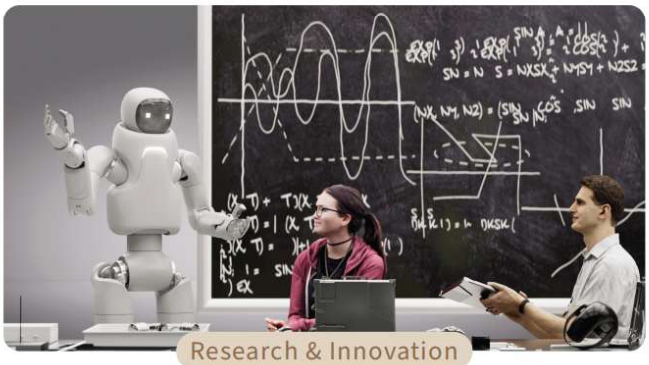
Real-World Applications

GR-3 Series marks a new phase in Fourier’ s pursuit of human-robot integration.

It’ s built to support meaningful interaction across diverse real-world settings, from public services and academic research to clinical use and, eventually, personal spaces. Designed to operate alongside people, the robot adapts to evolving needs and complex environments.

Commercial Services

Rehab & Wellness



Research & Innovation

Industrial & Efficiency

GR-3: A Softer Presence of Intelligent Agents

Breaking away from traditional metallic hardware, GR-3 features an innovative soft-shell design. Its exterior pairs premium automotive-grade upholstery with environmentally friendly foam padding, striking a balance between flexibility and structural support.

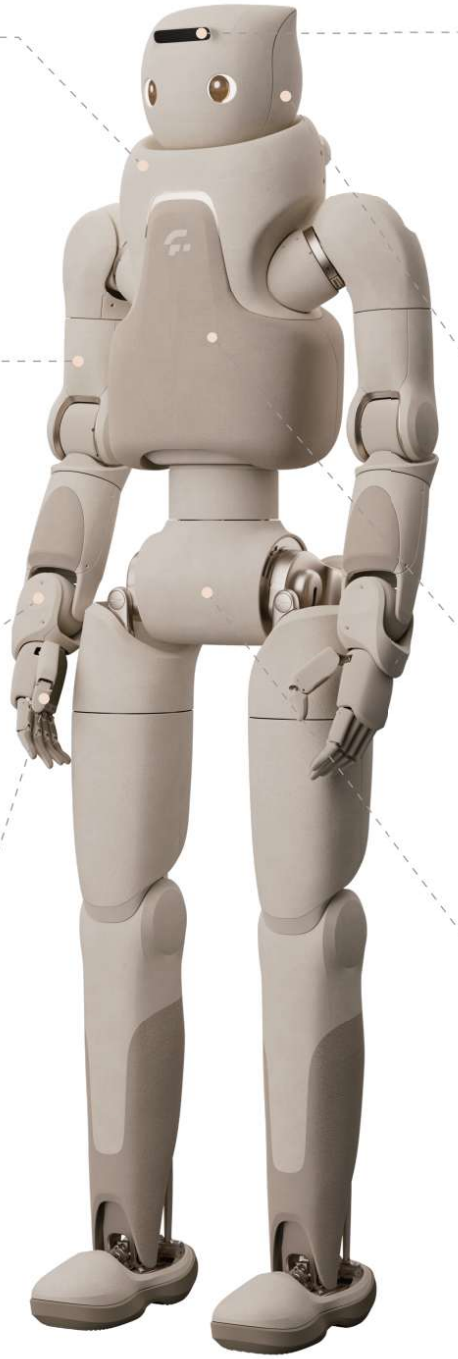
The carefully treated surface maintains industrial-grade durability while delivering a more approachable look and user-friendly engagement, making GR-3 both highly functional and inviting.

Height
165cm

Weight
71kg

Degree of Freedom
Up to 55

Single-Arm Load Capacity
3kg



Visual Perceptiont
RGB+Structured-light Camera Module

Audio Perception
Four-Mic Array
Sound Source Localization

Tactile Feedback
Thirty-one Distributed Pressure Sensors

Battery
3hr Avg. Runtime
Hot-Swappable Battery

Fourier GR-3

**Illustrations are for reference. Final product is subject to the actual item.*

A New Standard in Emotional Interaction

GR-3 features Fourier's proprietary Multimodal Interaction System, integrating vision, audio, and tactile feedback into a unified real-time emotional processing engine.

The dual-path response architecture supports both rapid reflexive actions via rule-based control and deep contextual understanding powered by a large language model for complex, situational dialogue generation.

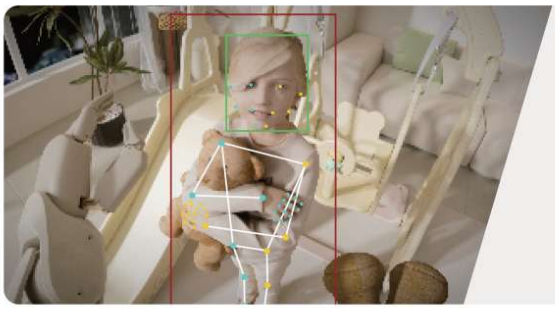
Sound Source Localization

Visual Recognition

Tactile Feedback

Innovative, Reliable, Accessible

Powered by an advanced attention management system, the robot dynamically prioritizes sensory inputs and synchronizes multimodal outputs to deliver smooth, humanlike responses.

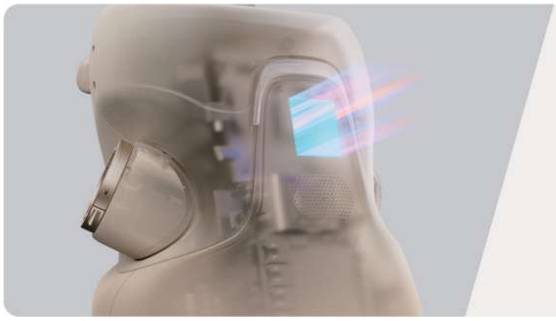


Visual Recognition

The robot's RGB and structured-light camera module provides reliable facial recognition and dynamic tracking, keeping users within GR-3's expressive visual field.

Audio Perception

A four-mic array enables omnidirectional voice activation, echo cancellation, and precise sound source localization. GR-3 orients to speakers with synchronized eye contact, enhancing natural vocal interaction.



Tactile Feedback

Thirty-one distributed pressure sensors enable real-time touch detection. Combined with animated micro-expressions, GR-3 responds to touch with lifelike social cues.

GR-3C: A Futuristic and Capable Assistant

The GR-3C offers additional options to meet diverse application needs. Users can select from a range of add-ons, such as vision modules and dexterous hands, providing reliable performance and easy adaptability

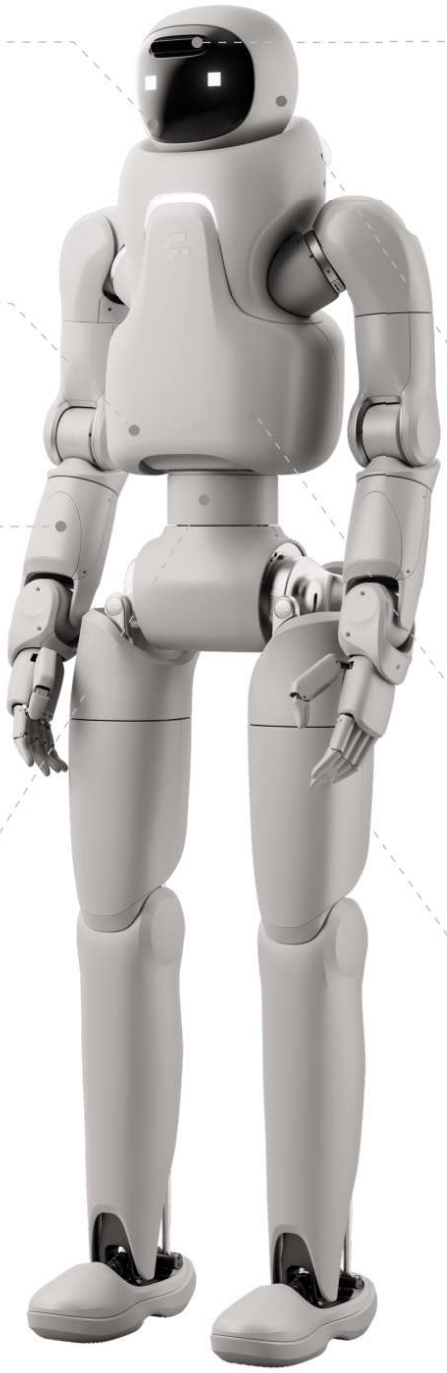
Its reinforced aluminum and engineering-plastic shell balances lightweight design with structural strength for durability and easy maintenance. The LED ring-screen head enables expressive facial interactions and extended displays, enhancing human-robot collaboration.

LED Display
Supports Expressive Facial Interactions

Height
165cm

Weight
71kg

Degree of Freedom
Up to 55



Visual Perception
RGB + Structured-light Camera Module

Audio Perception
Four-Mic Array
Sound Source Localization

Battery
3hr Avg. Runtime
Hot-Swappable Battery

Single-Arm Load Capacity
3kg

Fourier GR-3C

**Illustrations are for reference. Final product is subject to the actual item.*

General Technical Specifications

Mechanical Spec.	Height, Length, Width	1642mm x 552mm x 292mm		
	Weight	≈ 71kg	Lower-Limb	425mm + 408mm
	Arm Reach	1395mm	Arm Reach + Hand	Up to 1795mm
Joint Spec.	No. of Actuators	Up to 55 (12-DoF Dexterous Hand Version)		
	Head	2	Leg	6
	Waist	3	Arm	7
	Basic Dexterous Hand	6	Enhanced Dexterous Hand	12 *
	Max. Peak Torque	440N.m	Dual encoders	Support
	Communication Protocol	Ethernet		
Electronic Spec.	Supply Voltage	46.8V	Rated Voltage	≈ 936W
Performace	Walking Speed	⩾ 6km/h	Single-Arm Payload	≈ 3kg
	Standard Computing Power	8-Core High Performance CPU		
	High-Performance Computing Power	Jetson AGX Orin/Thor *		
Battery	Battery Capacity	Dual Battery 702Wh + 234Wh		
	Total Weight	3.8kg + 1.3kg	Battery Type	Lithium-Ion Battery
	Charging Voltage Limit	54.6V	Nominal Voltage	46.8V
	Average Runtime	≈ 3h	Life Cycle	⩾ 500 (80%DoD)
	Charging Time	≈ 1.5h	Hot-Swappable	Support
	Adapter Input Parameters	90 ~ 260VAC, 50/60Hz		
	Adapter Output Parameters	54.6V, 12A MAX		
Central Processing Unit	Operating System	Ubuntu 22.04	Processor	AMD Ryzen
	I/O Ports	Type-C、USB3.0、RJ45		

**Optional extensions available. Please contact sales for more information.*

Configurable Specifications

Model			 Fourier GR-3	 Fourier GR-3C
Sensor Spec.	Camera	RGB + Structured-light Camera Module *	●	●
	IMU	6-Axis (Supports Acceleration and Angular Velocity Sensing)	●	●
	Screen	LED Display Facial Expression Supported	●	●
	Microphone	4-Mic Array	●	●
	Speaker	15W	●	●
	Tactile Sensor	Head	●	
		Torso	●	
		Hand (12-DoF Dexterous Hand)	●	●
Material	Struture	Aluminium Alloy + Engineering Plastic	●	●
	Surface	Alcantara	●	
	Stuffing	Foamed Material	●	
Interaction Capabilities	Tele-operation	Real-time Remote Control Systems	●	●
	Voice Interaction	Echo Elimination	●	●
		Sound Source Locolization	●	●
		LLM	●	●
	Visual Perception	Visual Recognition	●	●
		Visual Tracking	●	●
	Tactile Feedback (Head + Torso)		●	
	Communication Light		●	●
	Standby Mode		●	●

**Optional extensions available. Please contact sales for more information.*