Every Execution is "as Precise as the Last One"

- The platform maintains stable and precise command execution capabilities under different operating conditions, delivering highly consistent action performance.
- Suitable for repeated training and long-term validation. Whether for strategy comparison or large-scale training, results are stable and credible, making every training session "meaningful and reusable."



Complete data collection and management capabilities to continuously accumulate real-world data assets.

This platform enables high-precision collection of robot and environmental data, supporting continuous accumulation of real-world data assets for Embodied AI and reinforcement learning.

Rich Proprioceptive Data:

Based on full-joint force control, it not only collects core data like position, velocity, and torque but also obtains multi-dimensional force information such as joint axial forces and end-effector forces, thereby supporting high-quality reinforcement learning and dynamic modeling.

Synchronized Environmental Data:

Supports integration of various peripherals like cameras and tactile sensors for synchronized multi-angle, multi-modal environmental data collection.

Hardware Structure Advantages | Balancing efficiency, stability and engineering adaptability.

Wheeled Base: Balancing Mobility Efficiency and Overall Stability

Wheeled locomotion structure offers higher mobility efficiency and lower energy consumption in indoor and flat scenarios.
Low center of gravity design enhances anti-tipping capability and dynamic stability during operation.
Suitable for long-duration inspection, training, and high-frequency mobile tasks.



Lifting Mechanism: Adaptive Structure for Multiple Height Conditions

The lifting mechanism supports continuously adjustable height, enabling stable operation at various working heights.
Adapts to the spatial height and working posture requirements of different tasks.

Emotional Interaction

A unique expressive lighting system combined with visual recognition makes it not only intelligent but also more personable during reception tasks and operational scenarios.



Expressive Lighting System and Visual Recognition

Copyright Notice

Copyright © Shenzhen Tianji Intelligent System Co., Ltd. All rights reserved.

No unit or individual may arbitrarily excerpt, reproduce the entire content of this document, or disseminate it in any form without the written consent of Shenzhen Tianji Intelligent System Co., Ltd.

Disclaimer

This document may contain predictive information, including but not limited to information regarding future finance, operations, product lines, new technologies, etc. Due to various uncertainties in practice, actual results may differ materially from the predictive information. Therefore, the information in this document is for reference only and does not constitute any offer or commitment. Shenzhen Tianji Intelligent System Co., Ltd. may revise the above information without prior notice.above information without prior notice.

SHENZHEN TIANJI INTELLIGENCE SYSTEM CO.,LTD.
ADD：78 Xiangshan Avenue, Bao' an District, Shenzhen, China
TEL：400-9869-168
WEB：gentorobotics.ai
E-MAIL：sales@tianjizn.com

202610

GENTO



Gento Skye

Wheeled Lifting Robot

Gento Skye

Product Specifications

	Item	Specification
Overall System Specifications	Overall Dimensions	677 × 577 × 2079 mm (raised, arms hanging down) 1010 × 577 × 1509 mm (stowed, arms folded into an L shape)
	Working Range	0 – 2000 mm
	Total Weight	≈220 kg
	Battery Life	4 – 6 h
	Communication Interfaces	Wi-Fi / Ethernet
	Total Degrees of Freedom	23 DoF (excluding grippers)
	Mobile Base	Four-wheel drive with four steering wheels; omnidirectional motion
	Ingress Protection Rating	IP20
	Operating Temperature	-10 – 40 °C
Head Specifications	**Degrees of Freedom**	**2 DoF (pitch + rotation)**
	Range of Motion	Rotation: ±90°, pitch: ±30°
	Max. Speed	J1–J2: 180°/s
	Communication Protocol	1 kHz EtherCAT
	Brake Control (Braking Method)	Brakes on all joints
	Stereo Speakers	4-microphone array
	Cameras	1 × RealSense D435C binocular stereo RGB-D depth camera, 1 × Senyun S56C stereo camera
	Head Camera Resolution	1280 × 720 @ 30 fps \ 2560 × 1984 @ 30 fps
Torso	**Camera**	**RealSense D435 (optional)**
Lift Specifications	**Degrees of Freedom**	**1 DoF**
	Lift Range	900 mm
	Lift Accuracy	±0.01 mm
	Lift Speed	0.5 m/s
Waist Specifications	**Degrees of Freedom**	**2 DoF**
	Force Control	Standard
	Pose Repeatability	±0.05 mm
	Range of Motion	Rotation: ±30°, pitch: -90°/0°
	Max. Speed	150°/s
	Communication Protocol	1 kHz EtherCAT
	Brake Control (Braking Method)	Brakes on all joints
	Functions	Position control, impedance control

	Model	Marvin M6
Robot Arm Specifications	Degrees of Freedom	7 DoF × 2
	Force Control	Standard
	Rated Payload (per arm)	6 kg
	Working Radius (J2 axis to end flange)	696 mm
	Max. TCP Speed	1.65 m/s
	Pose Repeatability	±0.03 mm
	Force Repeatability	⩽0.15 N
	Range of Motion	J1: ±178°, J2: ±120°, J3: ±178°, J4: +60°/-145°, J5: ±178°, J6: ±60°, J7: ±90°
	Max. Speed	J1–J7: 180°/s
	Communication Protocol	1 kHz EtherCAT
	Brake Control (Braking Method)	Brakes on all joints
	Functions	Position control, impedance control, automatic payload identification, hybrid force/position control
	End-Effector Interface	RS485, CAN, 24 V power supply
	Wrist Camera	Senyun SHW5G monocular camera (standard) / RealSense D405GA depth camera (optional)
	Ingress Protection Rating	IP50
Mobile Base Specifications	**Base Dimensions**	**L677mm × W548mm × H386mm**
	Power Supply	LiFePO4 battery, DC 48 V, 34.4 Ah
	Charging Method	Manual charging / automatic charging (optional) / hot-swap battery (optional)
	Charging Time	~2 h
	Rated Speed	1.5 m/s
	Max. Climbing Angle	⩽10°
	Stopping Accuracy	±20 mm (position), ±1° (angle)
	Navigation System	3D SLAM navigation with corner-mounted 3D LiDAR Ultrasonic sensors at front/rear/left/right, 2 on each side
	Charging Dock	Supported
	Functions	3D LiDAR with built-in algorithms; supports navigation planning, dynamic obstacle avoidance, autonomous localization, map building, automatic charging (optional), and navigation across floors or through automatic doors
Brain	**Perception Fusion and Reasoning**	**NVIDIA Jetson Orin 64G (275 TOPS) (standard) NVIDIA Jetson Thor T5000 1TB (2070 TFLOPS) (optional)**
Cerebellum	**Motion Control**	**x86 controller**

Gento Skye Wheeled Lifting Robot

Gento Skye is a full-body force control, control-rights-open humanoid robot development platform. Designed for Embodied AI, reinforcement learning, and real-world validation, it provides a stable, controllable, and expandable physical platform. The "cerebellum" is ready, allowing customers to focus on models/algorithms. Born for interaction with algorithms, data, and the real world.



Not brute force, but controlled compliance

This is a triple-safe humanoid platform based on full-body force control and impedance control. During collisions, contact, or abnormal force application, it can actively "relieve force" and adjust posture, realizing a humanoid robot platform truly capable of operating in real-world environments.

Platform Safety (Device Layer)	Personnel Safety (Human-Robot Collaboration Layer)	Environmental Safety (Scenario Layer)
In case of external collision or abnormal force application, the robot can actively respond compliantly, effectively preventing platform damage.	Automatically relieves force during human-robot contact or unexpected collision, significantly reducing impact risk.	Responds compliantly upon contact with the environment, avoiding rigid damage to equipment and the surrounding area.
Active anti-tipping, real-time calculation of the robot's stability margin, constantly maintaining balance through motion constraints and posture adjustments.	Meets the core safety requirements for personnel in close human-robot collaboration scenarios.	Suitable for safe interaction and long-term operation in complex spaces.

Industrial-grade Reliability - Designed for Long-term Training and Engineering Operations

Suitable for long-duration reinforcement learning training and high-frequency experimental iteration, without algorithm process interruption due to hardware instability.

- System-level design oriented towards Designed for 24/7 continuous operation scenarios.
- Low hardware heat generation, long-term stability of key components.
- Minimal sensor temperature drift, ensuring consistency and repeatability during long-term training and data acquisition.

Cerebellum ready — focus on algorithm innovation.

- You can focus on training the "brain," without building the "cerebellum" from scratch.
- Platform-level control and motion planning capabilities are already complete, allowing customers to skip complex low-level control and directly focus on model and algorithm development.

