

CNC GROUP

BUILT FOR DEVELOPERS

Whole-Body Control | Imitation Learning | Human-Robot Collaboration (HRC)



"LIGHTWEIGHT AND RUGGED"



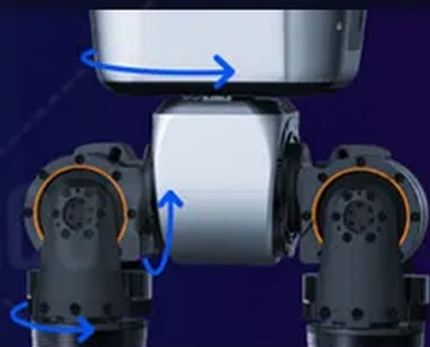
Stands about 1.2 meters tall and weighs around 30 kilograms.

One person can easily lift it.



Extensive joint ROM

Perform movements that are difficult for humans



Durable and Rugged

Through topological optimization, the structural strength has been enhanced. Crafted from high-strength metals and engineering plastics, it fears no drops.



RICH MOTOR CAPABILITIES



WALKING CAPABILITY

- Forward Walking
- Backward Walking
- Sideways Walking
- Turning
- Omnidirectional Movement
- Human-like Walking



DISTURBANCE RESISTANCE DURING WALKING AND FALL RECOVERY

- Withstands impacts of up to 15 N·s without falling
- Active Proactive Lying Down
- Autonomous Self-Recovery



SOCCER SKILLS

- Autonomous Ball Kicking
- Dribbling
- Kicking High Balls



ACTION LIBRARY

- Dancing
- Doing Push-ups
- Carrying Objects
- Waving
- Handshaking

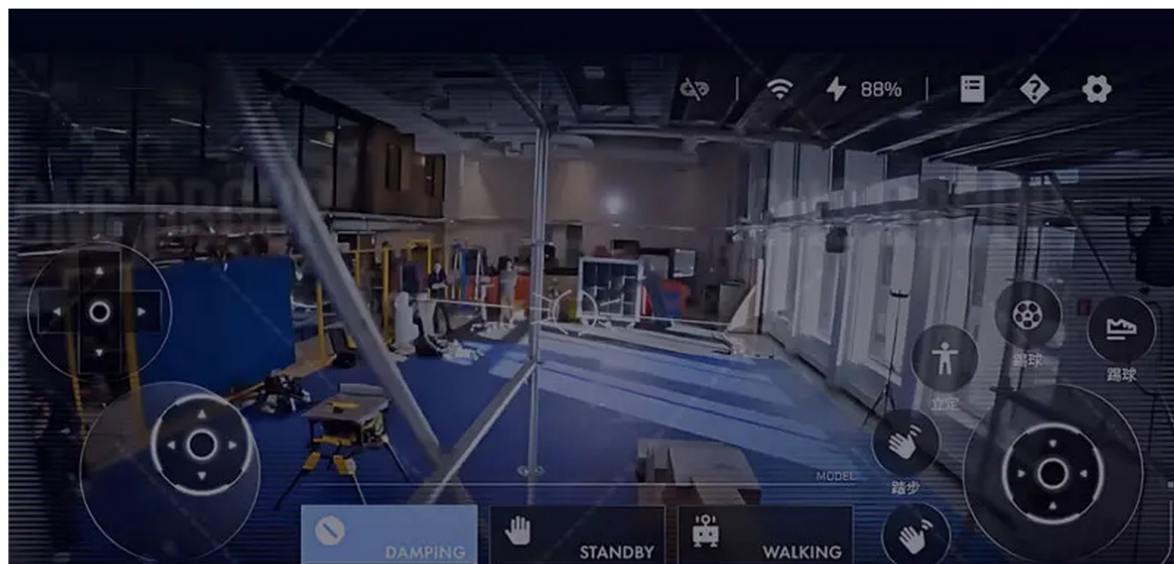
SUPPORTS INTEGRATION WITH ON-DEVICE LARGE MODELS

Unleash on-device AI: Seamlessly deploy models and tackle complex tasks like long-text generation, RAG, and autonomous operations.



COMPUTING UNIT SPECIFICATIONS

Computing Power	NVIDIA AGX Orin, delivering 200 TOPS of AI performance.
Networking	Gigabit Ethernet, Wi-Fi 6, 5G (optional).
Vision	Depth camera.
Audio	6-Microphone circular array + speaker.



DEVELOPER-FRIENDLY

API

High-Level Motion Interface

Low-Level Hardware Interface

Status Feedback Interface

SUPPORT FOR MAINSTREAM SIMULATION ENVIRONMENTS

Isaac Sim

Mujoco

Webots

ENABLES EFFORTLESS MULTIMODAL INTERACTION

On-device large model (optional)

Supports TTS & ASR

Compatible with YOLO and other detection algorithms

Enables real-time voice interaction with Doubao AI

ROS SUPPORT

Compatible with the ROS 2 ecosystem

APP SUPPORT

Quick robot operation and status monitoring

SPECIFICATIONS

Voice Module

6-Mic Circular Array with Speaker

Head Freedom

2

Vision Module

Depth-Sensing Camera

Compute

Delivers 200 TOPS of AI compute.

Arm Freedom

4 (Scalable)

Battery

2h (walking)
4h (stationary)

Torso Freedom

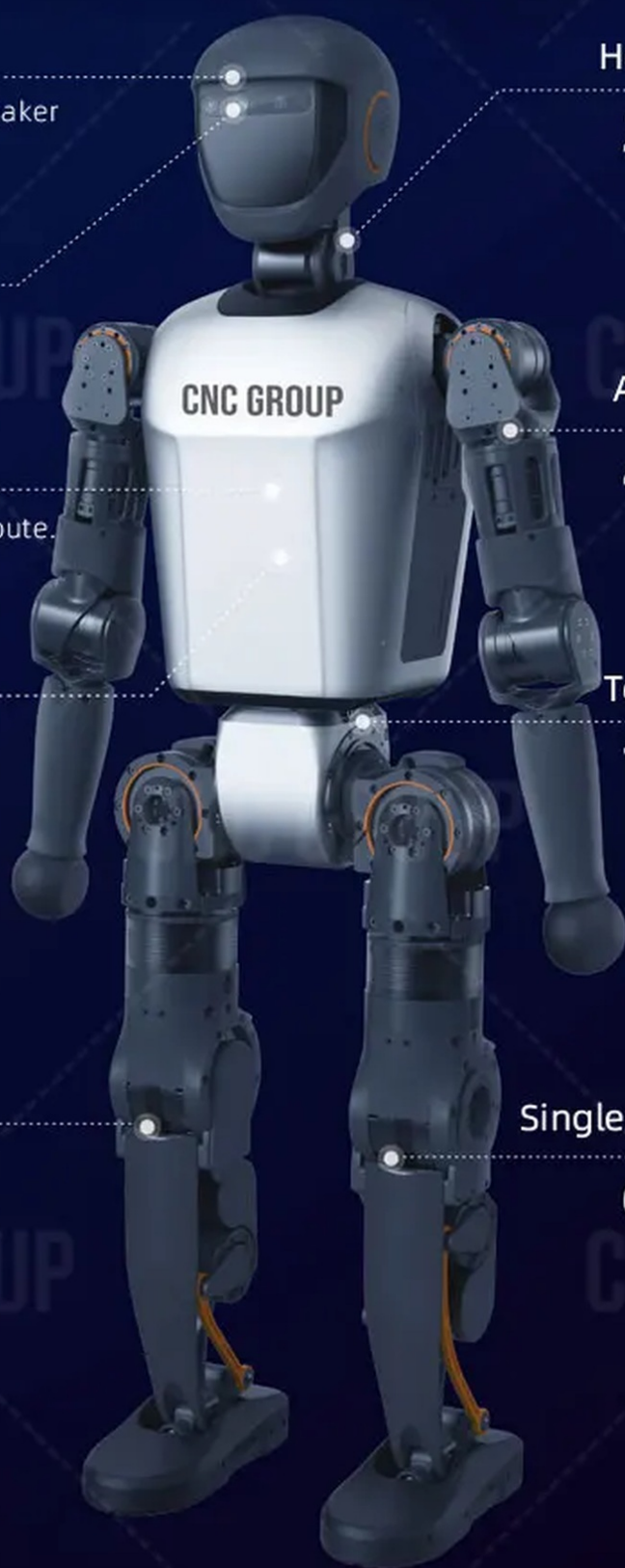
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Joint

Peak Torque: 130 N·m
Dual Encoder

Single-Leg Freedom

6



Specs

CNC GROUP T1

Dimensions	118×47×23cm
Lower Leg + Thigh Length	57cm
Reach	45cm
Weight	~30 kg
Degrees of Freedom (DoF)	23
Leg Do	6
Torso DoF	1
Arm DoF	4 (Scalable)
Head DoF	2
Knee Joint Peak Torque	130N.m
Joint Encoder	Dual Encoders
End Effector	Gripper (Optional)
Joint Motion Range	Waist Joint: $\pm 58^\circ$ Hip Joint: P $\pm 118^\circ$, R $-21^\circ \sim +88^\circ$, Y $\pm 58^\circ$ Knee Joint: $-11^\circ \sim 123^\circ$ Ankle Joint: P $-50^\circ \sim 20^\circ$, R $\pm 25^\circ$
GPU	Nvidia AGX Orin, provides 200 TOPS of AI computing power
Vision Module	Depth Camera
IMU	9-Axis IMU
Voice Module	Circular 6-Mic Array + Speaker
Battery	10.5Ah
Battery Life	2h (Walking) / 4h (Stationary)
WiFi 6	Supported
Bluetooth 5.2	Supported
5G	Optional
Expansion Port	USB, Ethernet
Firmware Upgrade	Supported
On-Device Large Language Model (LLM)	MiniCPM (Optional)
Secondary Development	Supported
Warranty	1 Year