

Booster T1



Lightweight Flexible Durable



Height about 1.2m Weight about 30kg

Easy to lift by a single person

Extra large joint movement space

Capable of performing actions challenging for humans

Wear-resistant and anti-fall

By using topology optimization to improve structural strength, along with high-strength metals and engineering plastics to become fall resistant







Rich Mobility Capabilities



Walking Abilities

Forward | Backward | Lateral Rotational | Omni-directional



Push Recovery and Fall Recovery

Withstands 15 N·s impact Active fall | Get up



Soccer Skills

Autonomous soccer game Dribble and high-kick Throw-in



Motion Library

Push-ups Kung-fu Dance



Edge LLM Support

Can easily deploy edge LLM models and achieve various capabilities, including long text, retrieval-augmented generation (RAG), task execution etc.



Computing Unit Specification

Computing Power	Nvidia AGX Orin, provides 200 TOPS AI performance	
Network	1000M Wired, Wifi 6, 5G (Optional)	
Video	Depth Camera	
Audio	Speaker, Microphone	

Developer Friendly



API

High-level motion interface

Low-level hardware interface

Status feedback interface

Popular simulation environments support

Isaac Sim

Mujoco

Webots

Easily achieve multimodal interaction

Optional edge LLM support

Supports TTS (Text-to-Speech)
ASR (Automatic Speech Recognition)

Supports recognition algorithms like Yolo

ROS support

Compatible with ROS2 ecosystem

APP support

Quickly operate the robot and view its status

Booster T1 Parameter

Voice Module

Circular 6-Microphone Array + Speaker

Vision Module

Depth Camera

Computing Power

300STER ROBOTICS

Provides 200 TOPS AI performance

Battery

2h (Walking) 4h (Standing)

Joint

Peak torque of 130 N.m Dual encoders



2

Single Arm DoFs

4 (Extensible)

Waist DoFs

1

Single Leg DoFs

6

Size	Specification	Booster T1
Arm Span Weight About 30 kg Total Degrees of Freedom 23 Single Leg DoFs 6 Waist DoFs 1 Single Arm DoFs 4 (Extensible) Head DoFs 2 Max Torque of Knee Joint Joint Encoder End Effector Gripper (Optional) Waist Joint: ±58° Hip Joint: -118°, R-21°+88°, Y±58° Knee Joint: -11*-123° Ankle Joint: -15°-20° R±25° CPU 14-core high-performance processor Widia AGX Orin, provides 200 TOPS Al performance Vision Module Depth Camera IMU Voice Module Microphone Array, Speaker Battery 10.5Ah Batter Life 2h (Walking), 4h (Standing) WiFi 6 Pyes Single Ambula About 30 kg 1 Lister About 30 kg About 30 kg About 30 kg About 30 kg Lister About 30	Size	118×47×23cm
Weight About 30 kg Total Degrees of Freedom 23 Single Leg DoFs 6 Waist DoFs 1 Single Arm DoFs 4 (Extensible) Head DoFs 2 Max Torque of Knee Joint 130N.m Joint Encoder Dual Encoder End Effector Gripper (Optional) Waist Joint: #58° Hip Joint: P\$118°, R-21°~+88°, Y±58° Knee Joint: -11°~123° Ankle Joint: P-50°-20° R±25° CPU 14-core high-performance processor GPU Nvidia AGX Orin, provides 200 TOPS AI performance Vision Module Depth Camera IMU 9-axis IMU Voice Module Microphone Array, Speaker Battery 10.5Ah Batter Life 2h (Walking), 4h (Standing) WiFi 6 Yes Bluetooth 5.2 Yes Optional Interface USB, Ethernet	Calf+Thigh Length	57cm
Total Degrees of Freedom 23 Single Leg DoFs 6 Waist DoFs 1 Single Arm DoFs 4 (Extensible) Head DoFs 2 Max Torque of Knee Joint 130N.m Joint Encoder Dual Encoder End Effector Gripper (Optional) Waist Joint: #58° Hip Joint: P±118°, R-21°~+88°, Y±58° Knee Joint: -11°~123° Ankle Joint: P-50°~20° R±25° CPU 14-core high-performance processor GPU Nvidia AGX Orin, provides 200 TOPS Al performance IMU 9-axis IMU Voice Module Microphone Array, Speaker Battery 10.5Ah Batter Life 2h (Walking), 4h (Standing) WiFi 6 Yes GPU Optional Interface USB, Ethernet	Arm Span	45cm
Single Leg DoFs Waist DoFs I Single Arm DoFs 4 (Extensible) Head DoFs 2 Max Torque of Knee Joint Joint Encoder End Effector Dual Encoder End Effector Gripper (Optional) Waist Joint: ±58° Hip Joint: P±118°, R-21°-+88°, Y±58° Knee Joint: -11°-123° Ankle Joint: P-50°-20° R±25° CPU 14-core high-performance processor GPU Nvidia AGX Orin, provides 200 TOPS AI performance Vision Module Depth Camera Joint Movement Space Microphone Array, Speaker Battery 10.5Ah Batter Life 2h (Walking), 4h (Standing) WiFi 6 Pes GPU Vision Module USB. Ethernet	Weight	About 30 kg
Single Arm DoFs 4 (Extensible) Head DoFs 2 Max Torque of Knee Joint Joint Encoder End Effector Joint Movement Space Fig. 11	Total Degrees of Freedom	23
Single Arm DoFs 4 (Extensible) Head DoFs 2 Max Torque of Knee Joint Joint Encoder End Effector Dual Encoder End Effector Gripper (Optional) Waist Joint: ±58° Hip Joint: P±118°, R-21°~+88°, Y±58° Knee Joint: -11°~123° Ankle Joint: P-50°~20° R±25° CPU 14-core high-performance processor GPU Nvidia AGX Orin, provides 200 TOPS Al performance IMU 9-axis IMU Voice Module Battery 10.5Ah Batter Life 2h (Walking), 4h (Standing) WiFi 6 Yes SG Optional Interface USB. Ethernet	Single Leg DoFs	6
Head DoFs Max Torque of Knee Joint Joint Encoder End Effector Gripper (Optional) Waist Joint: ±58° Hip Joint: P±118°, R-21°-+88°, Y±58° Knee Joint: -11°-123° Ankle Joint: P-50°-20° R±25° CPU 14-core high-performance processor GPU Nvidia AGX Orin, provides 200 TOPS Al performance Vision Module Depth Camera IMU 9-axis IMU Voice Module Battery 10.5Ah Batter Life 2h (Walking), 4h (Standing) WiFi 6 Yes SG Optional Interface USB, Ethernet	Waist DoFs	1
Max Torque of Knee Joint Joint Encoder End Effector Gripper (Optional) Waist Joint: ±58° Hip Joint: P±118°, R-21°~+88°, Y±58° Knee Joint: -11°~123° Ankle Joint: P-50°~20° R±25° CPU 14-core high-performance processor GPU Nvidia AGX Orin, provides 200 TOPS Al performance Vision Module Depth Camera IMU 9-axis IMU Voice Module Microphone Array, Speaker Battery 10.5Ah Batter Life 2h (Walking), 4h (Standing) WiFi 6 Yes Bluetooth 5.2 Yes Optional Interface USB, Ethernet	Single Arm DoFs	4 (Extensible)
Joint Encoder End Effector Gripper (Optional) Waist Joint: ±58° Hip Joint: P±118°, R-21°~+88°, Y±58° Knee Joint: -11°~123° Ankle Joint: P-50°~20° R±25° CPU 14-core high-performance processor GPU Nvidia AGX Orin, provides 200 TOPS AI performance Vision Module Depth Camera IMU 9-axis IMU Voice Module Microphone Array, Speaker Battery 10.5Ah Batter Life 2h (Walking), 4h (Standing) WiFi 6 Yes Bluetooth 5.2 Yes Optional Interface USB, Ethernet	Head DoFs	2
End Effector Gripper (Optional) Waist Joint: ±58° Hip Joint: P±118°、R-21°~+88°、Y±58° Knee Joint: -11°~123° Ankle Joint: P-50°~20° R±25° CPU 14-core high-performance processor GPU Nvidia AGX Orin, provides 200 TOPS AI performance Vision Module Depth Camera IMU 9-axis IMU Voice Module Microphone Array, Speaker Battery 10.5Ah Batter Life 2h (Walking), 4h (Standing) WiFi 6 Pyes Bluetooth 5.2 Yes Optional Interface USB、Ethernet	Max Torque of Knee Joint	130N.m
Joint Movement Space Waist Joint: ±58° Hip Joint: P±118°, R-21°~+88°, Y±58° Knee Joint: -11°~123° Ankle Joint: P-50°~20° R±25° CPU 14-core high-performance processor RPU Nvidia AGX Orin, provides 200 TOPS AI performance Vision Module Depth Camera IMU Voice Module Microphone Array, Speaker Battery 10.5Ah Batter Life 2h (Walking), 4h (Standing) WiFi 6 Pes Bluetooth 5.2 Yes Optional Interface USB, Ethernet	Joint Encoder	Dual Encoder
Hip Joint: P±118°, R-21°-+88°, Y±58° Knee Joint: -11°-123° Ankle Joint: P-50°-20° R±25° CPU 14-core high-performance processor Nvidia AGX Orin, provides 200 TOPS AI performance Vision Module Depth Camera IMU 9-axis IMU Voice Module Microphone Array, Speaker Battery 10.5Ah Batter Life 2h (Walking), 4h (Standing) WiFi 6 Yes Bluetooth 5.2 Yes 5G Optional Interface USB, Ethernet	End Effector	Gripper (Optional)
GPU Nvidia AGX Orin, provides 200 TOPS Al performance Vision Module Depth Camera IMU 9-axis IMU Voice Module Microphone Array, Speaker Battery 10.5Ah Batter Life 2h (Walking), 4h (Standing) WiFi 6 Yes Bluetooth 5.2 Yes 5G Optional Interface USB, Ethernet	Joint Movement Space	Hip Joint: P±118°、R-21°~+88°、Y±58° Knee Joint: -11°~123°
Vision Module IMU 9-axis IMU Voice Module Microphone Array, Speaker Battery 10.5Ah Batter Life 2h (Walking), 4h (Standing) WiFi 6 Yes Bluetooth 5.2 Yes 5G Optional Interface USB、Ethernet	CPU	14-core high-performance processor
IMU 9-axis IMU Voice Module Microphone Array, Speaker Battery 10.5Ah Batter Life 2h (Walking), 4h (Standing) WiFi 6 Yes Bluetooth 5.2 Yes 5G Optional Interface USB、Ethernet	GPU	Nvidia AGX Orin, provides 200 TOPS AI performance
Voice Module Battery 10.5Ah Batter Life 2h (Walking), 4h (Standing) WiFi 6 Yes Bluetooth 5.2 Yes 5G Optional Interface USB、Ethernet	Vision Module	Depth Camera
Battery 10.5Ah Batter Life 2h (Walking), 4h (Standing) WiFi 6 Yes Bluetooth 5.2 Yes 5G Optional Interface USB, Ethernet	IMU	9-axis IMU
Batter Life 2h (Walking), 4h (Standing) WiFi 6 Yes Bluetooth 5.2 Yes 5G Optional Interface USB、Ethernet	Voice Module	Microphone Array, Speaker
WiFi 6 Yes Bluetooth 5.2 Yes 5G Optional Interface USB, Ethernet	Battery	10.5Ah
Bluetooth 5.2 Yes 5G Optional Interface USB、Ethernet	Batter Life	2h (Walking) , 4h (Standing)
5G Optional Interface USB、Ethernet	WiFi 6	Yes
Interface USB、Ethernet	Bluetooth 5.2	Yes
	5G	Optional
Firmware Upgrade Yes	Interface	USB、Ethernet
	Firmware Upgrade	Yes
Edge LLM MiniCPM (Optional)	Edge LLM	MiniCPM (Optional)
Secondary Development Yes	Secondary Development	Yes
Warranty Period 1 Year	Warranty Period	1 Year