

MULTI-MODAL BIPED ROBOT

EMPOWER
INNOVATORS

TRON1

Sensor Expansion Kit



Integrates **LiDAR + depth camera** with pre-optimized mounting positions and field-of-view (FOV), TRON 1 provides a ready-to-use solution for 3D mapping, relocalization, navigation, and dynamic obstacle avoidance.



NVIDIA High-Performance Computing Module: Enables research on autonomous navigation and obstacle avoidance in complex environments.



Pre-Tuned Field of View and Sensor Mounting: Reduces repetitive calibration, accelerating research efficiency.



Out-of-the-Box Expansion: Standard mounting adapters for immediate plug-and-play use.



Rich Open-Source Examples: For faster onboarding and lower development barriers and fast-track your projects.

Technical Specifications

Product Name	TRON 1 Sensor Expansion Kit
Model Number	TRON1-AP-SS
Compatible Modes	Wheeled
GPU	NVIDIA Ampere architecture 1024 CUDA Cores 32 Tensor Cores
GPU Max Frequency	1173MHz
AI Performance	157 TOPS (Sparse) 78 TOPS (Dense)
CPU	8-core Arm® Cortex®-A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3
CPU Max Frequency	2.0GHz
SPEC int rate	167
Memory	16GB 128-bit LPDDR5 102.4GB/s
Storage	M.2 SSD (256GB standard) Supports External NVMe
LiDAR FOV	Horizontal: 360° Vertical: -7° ~52°
Laser Wavelength	905nm
Close Proximity Blind Zone	~0.8m
Point Rate	200,000 pts/s
Frame Rate	10Hz
Depth FOV (HxV)	87° x58°
Depth Resolution	1280x720
Depth Accuracy	<2% at 2m
RGB Sensor FOV (HxV)	69° x42°
RGB Resolution	1920x1080

Accessories List

Category	Qty/Unit
LiDAR • Mounting Plate • Power Cable	1 set
Depth Camera • Mounting Bracket • Power Cable	1 set
AI Computing Module • Jetson Orin NX 16GB • Power Adapter Module • Power Cable • Power Extension Cord	1 set
Ethernet Hub	1 pc
Mounting Plate	1 pc
LiDAR Mounting Bracket	2 pc
Assembly Kit • Screws • Hex Key	1 pack
Ethernet Cable	3 pcs
Quick Start Guide	1 pc

