

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 (Spare) 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
<b>LiDAR</b> <ul style="list-style-type: none"> <li>• Mounting Plate</li> <li>• Power Cable</li> </ul>	1 set
<b>Depth Camera</b> <ul style="list-style-type: none"> <li>• Mounting Bracket</li> <li>• Power Cable</li> </ul>	1 set
<b>AI Computing Module</b> <ul style="list-style-type: none"> <li>• Jetson Orin NX 16GB</li> <li>• Power Adapter Module</li> <li>• Power Cable</li> <li>• Power Extension Cord</li> </ul>	1 set
Ethernet Hub	1 pc
Mounting Plate	1 pc
LiDAR Mounting Bracket	2 pc
<b>Assembly Kit</b> <ul style="list-style-type: none"> <li>• Screws</li> <li>• Hex Key</li> </ul>	1 pack
Ethernet Cable	3 pcs
Quick Start Guide	1 pc

