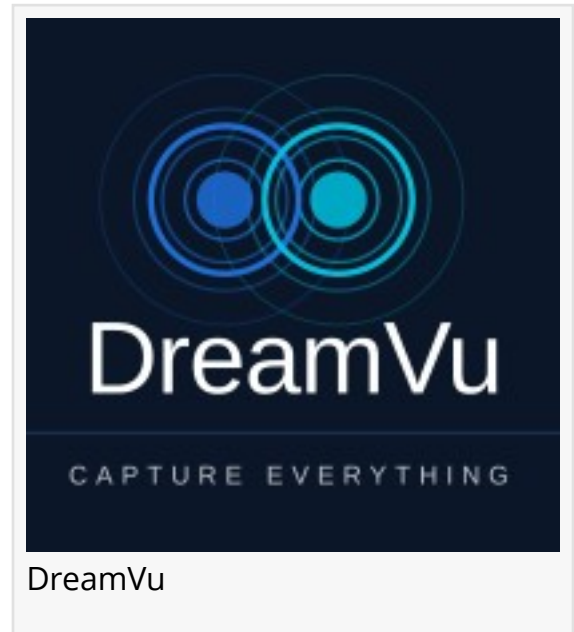


DreamVu Launches the Largest Grocery SimReady Asset Library — Built from Real-World Capture

2,200 SimReady USD assets captured from real-world environments with lab-measured physics - Ready for NVIDIA Isaac Sim, Cosmos, and GROOT workflows.

PHILADELPHIA, PA, UNITED STATES, April 28, 2026

/EINPresswire.com/ -- [DreamVu, Inc.](#), the Physical AI data infrastructure company, today announced the commercial release of its grocery SimReady USD asset library — the largest grocery-specific 3D [simulation-asset](#) library, and the first built entirely from omnidirectional real-world capture with lab-measured physics, using DreamVu's proprietary ALIA 360° camera. By narrowing the domain gap that has limited sim-to-real transfer, the library marks a foundational step toward DreamVu's real-to-sim-to-real pipeline. It is designed for training humanoid robots and embodied AI agents in retail environments.



The library includes more than 2,200 distinct grocery products and extensive storefront layout assets representing complete grocery retail environments — produce sections, packaged-goods

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Rajat Aggarwal, CEO and Co-Founder of DreamVu

aisles, refrigeration units, checkout zones, and back-of-store areas. Every asset is delivered in OpenUSD format, validated for NVIDIA Isaac Sim and Omniverse pipelines, and ships with full physical properties — including measured mass, friction coefficients, collision meshes, and semantic labels — ready for robot manipulation training, sim-to-real transfer, and synthetic data generation workflows. Every physical property in the library is derived from the real items it represents.

Filling a critical gap in the SimReady ecosystem
The USD asset ecosystem has expanded rapidly, but

existing SimReady libraries share a common limitation: their physics properties are estimated,

computed, or LLM-generated rather than lab-measured.

Dataset	Asset Count	Format	Capture Method	Vertical Focus
DreamVu Grocery	SimReady (this release)	2,200 items + extensive storefront layouts	OpenUSD	Omnidirectional real-world capture; lab-measured physics
MarketGen (academic, Nov 2025)	1,100+ supermarket items	Isaac Sim / Unreal (USD-compatible)	Procedural generation; LLM-generated physics	Grocery retail (deep)
NVIDIA PhysicalAI-SimReady-Warehouse-01	753 assets	OpenUSD	Artist / CAD; estimated physics	Supermarket
Lightwheel	SimReady ~2,000 curated assets (USD Search subset)	OpenUSD / MJCF	Mixed; partial Real2Sim calibration	Industrial warehouse
Google Scanned Objects	1,030 household items	SDF (non-USD)	3D scanned; computed physics	Manipulation & locomotion (general)
Generic household				

DreamVu's release is the only commercial-grade OpenUSD simulation-asset library purpose-built for grocery retail. It is also the only library at this scale where every asset originates from omnidirectional 3D capture with lab-measured physics properties — not LLM-generated, computed, or estimated.

Built for the NVIDIA Physical AI stack

Each asset is validated end-to-end through DreamVu's production pipeline — from real-world capture through OpenUSD conversion and Isaac Sim verification. The library is designed to drop directly into:

- NVIDIA Isaac Sim and Isaac Lab for robot policy training and reinforcement learning
- NVIDIA Omniverse for digital twin construction and large-scale scene composition
- NVIDIA Cosmos world foundation models for synthetic data generation and post-training
- NVIDIA GR00T for humanoid policy training via the NuRec \square Isaac Sim pipeline
- LeRobot v2 for open-source robotics workflows

DreamVu is an active member of the NVIDIA Inception program and is releasing this library as part of its broader Physical AI infrastructure offering, which spans enriched 3D capture data, fine-tuned vertical models (Retail Cosmos, Retail GR00T), and custom on-site capture engagements.

Why sim-to-real matters: closing the domain gap

The fundamental challenge in robotics simulation is the domain gap: policies trained in simulation fail when deployed on real robots because the simulated environment does not match reality. A primary contributor to the gap is the asset layer itself: today's SimReady libraries rely on physics properties that are estimated, computed, or LLM-generated rather than measured. DreamVu is the first to build a SimReady library this way — starting from real-world capture, with physics measured in the lab.

"We looked at every 3D asset library available for robotics simulation and realized they all share

the same blind spot — none of them measure physics from the real object. Artist-estimated friction, guessed mass, approximated collision shapes — these are the hidden sources of sim-to-real failure. Our assets start from reality: real items captured with our ALIA 360° omnidirectional camera, real physics measured in the lab, real collision meshes from actual CAD geometry. When a robotics team loads our cereal box into their simulation, it behaves like the actual cereal box on the shelf. That’s the difference real-to-sim makes.” — Rajat Aggarwal, CEO and Co-Founder of DreamVu

Availability

The grocery SimReady USD asset library is available immediately under DreamVu’s commercial license. A free preview pack is available for technical evaluation. For licensing inquiries, technical specifications, or to request the evaluation pack, contact sales@dreamvu.ai or visit dreamvu.ai.

[About DreamVu](#)

DreamVu, Inc. is a Physical AI data infrastructure company building the omnidirectional 3D capture platform and foundation models for the next generation of humanoid robots and embodied AI systems. With headquarters and R&D in Philadelphia and additional R&D in Hyderabad, India, DreamVu serves robotics foundation model developers, enterprise customers deploying Physical AI in commercial environments, and the broader NVIDIA Physical AI ecosystem. The company is a member of the NVIDIA Inception program. Learn more at dreamvu.ai.

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