Aeva Introduces AevaScenes, the First Open-Access FMCW 4D LiDAR and Camera Dataset for Autonomous Vehicle Research

September 30, 2025

Public Dataset Features Long-Range FMCW LiDAR and Camera Data to Accelerate Next-Generation Autonomous Vehicle Perception

MOUNTAIN VIEW, Calif.--(BUSINESS WIRE)--Sep. 30, 2025-- Aeva® (Nasdaq: AEVA), a leader in next-generation sensing and perception systems, today announced the release of AevaScenes, the industry's first open dataset featuring synchronized, multi-sensor FMCW 4D LiDAR and camera data with object velocity measurements, semantic segmentation, tracking and lane line annotations.

This press release features multimedia. View the full release here: https://www.businesswire.com/news/home/20250930555244/en/

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Designed to accelerate research in autonomous vehicle perception and expand the adoption of FMCW LiDAR, AevaScenes supports innovation in object detection, semantic segmentation, motion forecasting, scene flow, and trajectory estimation. The dataset is now available for academic and non-commercial use at scenes.aeva.com.

Key Highlights of AevaScenes:

- **High-Fidelity FMCW LiDAR Data**: Provides researchers and developers with highly accurate and dense range sensing, capturing depth and velocity information in challenging driving environments.
- **Rich Multimodal Sensor Fusion**: By combining FMCW 4D LiDAR with high-resolution camera imagery, the dataset supports research across detection, segmentation, tracking, sensor calibration, and novel perception tasks.
- **Flexible Field of View Options**: Aeva's interactive sensor diagram showcases both wide and narrow fields of view for LiDAR and camera systems, enabling users to explore sensor characteristics and choose configurations that best suit their research needs.
- **Ultra-Long Range Annotations**: Provides the world's first dataset with ultra-long range annotations for object detection, semantic segmentation and lane detection at distances up to 400 meters.

"AevaScenes is the first dataset to bring together long-range FMCW LiDAR with velocity information and rich camera data, creating a new benchmark for perception research," said James Reuther, Chief Engineer at Aeva. "By opening access to this level of fidelity and scale, we're giving researchers the tools to push the boundaries of what's possible in autonomous driving—whether that's advancing detection and tracking or unlocking entirely new approaches to motion understanding."

What's in AevaScenes:

- **100 curated sequences** captured in and around the San Francisco Bay Area, covering urban and highway driving across day and night conditions.
- **10,000 frames** of time-synchronized FMCW LiDAR and RGB camera data at 10Hz.
- **Sensor Suite**: 6 Aeva FMCW LiDAR sensors (4 wide FOV, 2 narrow FOV), 6 high-resolution RGB cameras (matching wide/narrow FOV).
- **Camera Specs**: 4K resolution, 10 FPS, RGB.
- **Data Format**: PCD point clouds, JPEG images, JSON annotations.
- **Total Size**: Approximately 200 GB (2 GB per sequence).
- **Platform**: Data captured using Aeva's Mercedes Metris test vehicles.
- **Environment Diversity**: 50% highway / 50% urban, 50% day / 50% night.
- **Conditions**: All sequences captured in clear weather with dry road surfaces.

Availability and Access:

AevaScenes is publicly available for free today for non-commercial use at scenes.aeva.com, where users can explore dataset units, download samples, and visualize sensor configurations through an intuitive web interface.

About Aeva Technologies, Inc. (Nasdaq: AEVA)

Aeva's mission is to bring the next wave of perception to a broad range of applications from automated driving, manufacturing automation and smart infrastructure, to robotics and consumer devices. Aeva is accelerating autonomy with its groundbreaking perception platform that integrates lidar-on-chip technology, system-on-chip processing, and perception algorithms onto silicon leveraging silicon photonics. Aeva 4D LiDAR sensors uniquely detect velocity and position simultaneously, allowing automated devices like vehicles and robots to make more intelligent and safe decisions. For more information, visit www.aeva.com, or connect with us on X or LinkedIn.

Forward looking statements

This press release contains certain forward-looking statements within the meaning of the federal securities laws. Forward-looking statements generally are identified by the words "believe," "project," "expect," "anticipate," "estimate," "intend," "strategy," "future," "opportunity," "plan," "may," "should," "will," "would," "will be," "will continue," "will likely result," and similar expressions. These forward-looking statements include, but are not limited to expectations about our product features, performance and use and adoption of FMCW LiDAR for autonomous vehicle applications. Forward-looking statements are predictions, projections and other statements about future events that are based on current expectations and assumptions and, as a result, are subject to risks and uncertainties. Many factors could cause actual future events to differ materially from the forward-looking statements in this press release, including, but not limited to: (i) the fact that Aeva is an early stage company with a history of operating losses and may never achieve profitability, (ii) Aeva's limited operating history, (iii) the ability to implement business plans, forecasts, and other expectations and to identify and realize additional opportunities, (iv) the ability for Aeva to have its products selected for inclusion in OEM products and (v) other material risks and other important factors that could affect our financial results. Please refer to our filings with the SEC, including our most recent Form 10-Q and Form 10-K. These filings identify and address other important risks and uncertainties that could cause actual events and results to differ materially from those contained in the forward-looking statements. Forward-looking statements speak only as of the date they are made. Readers are cautioned not to put undue reliance on forward-looking statements, and Aeva assumes no obligation and does not intend to update or revise these forward-looking statements, whether as a result of new information, future events, or otherwise. Aeva does not give any assurance that it will achieve its expectations.

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Media:
Michael Oldenburg
press@aeva.ai

Investors:
Andrew Fung
investors@aeva.ai

Source: Aeva Technologies, Inc.