Ambarella Accelerates Edge AI Innovation for Next Generation of Drones; Antigravity Deploys Ambarella's CV5 AI SoC in Antigravity A1 Drone

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Building on Long Track Record in Aerial Imaging, Ambarella Expands Focus for On-Device AI, Enables Smarter Autonomy for Fast-Growing Drone Applications, Including Antigravity's A1 – The World's First 360 Drone

SANTA CLARA, Calif., Dec. 22, 2025 (GLOBE NEWSWIRE) -- Ambarella, Inc. (NASDAQ: AMBA), an edge AI semiconductor company, today announced in advance of CES its reaffirmed commitment to advancing the drone market with high-performance, low-power system-on-chips (SoCs) that combine industry-leading video processing with on-device artificial intelligence (AI). As drones evolve from "flying cameras" to intelligent robotic platforms with higher autonomy, Ambarella is investing in technologies that help drone makers deliver higher image quality, lower latency decision-making, and more autonomous capabilities without relying on constant cloud connectivity.

A History Rooted in Aerial Imaging
Ambarella has a long-standing heritage in video compression and image signal processing that helped define modern aerial imaging. Over the past decade, the company's SoCs have been widely adopted across camera-centric form factors, including products that demand stabilized, high-resolution video, efficient power consumption and consistent performance in dynamic lighting conditions. This foundation in imaging has positioned Ambarella to support the next wave of drone innovation, where video quality and on-device AI compute intelligence increasingly converge.

Edge AI is Becoming Central to Drones and Ambarella is Positioned to Win
Across the industry, drones are rapidly incorporating AI "on the edge" inside these edge-endpoint devices to reduce latency, improve reliability, enhance safety and enable real-time understanding of the environment. By running AI locally on the drone, manufacturers can deliver capabilities such as intelligent subject tracking, obstacle awareness, scene understanding and event detection while minimizing backhaul bandwidth and supporting operation in connectivity-challenged environments.

Ambarella's CVflow® AI architecture and large portfolio of its CV families of SoCs, now in their third generation, are designed to bring advanced computer vision and deep learning inference to power and thermally constrained devices like drones, pairing AI acceleration with robust imaging pipelines to help OEMs build more capable airborne systems.

"Drones are quickly transforming into intelligent edge aerial robots, capturing, processing and understanding the world in real time," said Fermi Wang, President and CEO of Ambarella. "Ambarella's heritage in high-quality imaging, combined with our CVflow AI roadmap, enables drone makers to push more autonomy and more insight onto the drone itself, where every millisecond and every milliwatt matters."

Commercial, Consumer and Prosumer Drone Use Cases Rising and Ambarella is Expanding its Focus
As regulations mature and organizations seek safer, faster and more cost-effective workflows, commercial, consumer and prosumer drone deployments continue to broaden. Applications such as infrastructure inspection, construction and surveying, precision agriculture, energy and utilities, public safety, and industrial site monitoring are driving demand for smarter sensing and actionable intelligence at the point of capture. Ambarella is actively exploring and expanding several engagements across these segments where customers increasingly value edge AI for real-time detection, classification, central domain control and decision support, alongside premium imaging for recording video to document 360 views of the flight path, as well as taking photos.

Antigravity Deploys Ambarella CV5 in Antigravity A1 – World's First 360 Drone[1].
As a recent example of next-generation drone innovation, Antigravity is leveraging Ambarella's CV5 AI SoC for 8K imaging, as well as this SoC's internal CVflow AI accelerator to do on-device inferencing, highlighting how advanced video processing and on-device intelligence can be integrated in a modern aerial platform to deliver a differentiated user experience.

"The Antigravity A1 reflects our ambition to push drone imaging forward, capturing more detail, more reliably, in more situations," said Antigravity CEO Michael Shabun. "By leveraging Ambarella's CV5 SoC for high-quality imaging with its integrated CVflow architecture for on-device AI acceleration and inferencing, we can deliver intelligent capabilities at the edge while staying focused on efficiency and performance."

Ambarella's Drone-Forward Priorities
Ambarella's ongoing drone innovation is centered on helping drone vendors deliver:

- Cinematic, compute-driven imaging with advanced ISP capabilities for challenging real-world conditions.
- On-device AI for perception and real-time understanding with reduced latency and bandwidth dependence.
- L1 to L4 levels of autonomous robotics capabilities.
- Efficient AI performance-per-watt, to support longer flight time and compact designs with minimized thermal-management components.
- A scalable AI SoC roadmap that will drive higher levels of autonomy for drones in the future.

Demonstrations

Ambarella will be demonstrating the capabilities of its CV5 AI SoC by providing visitors with the opportunity to try the Antigravity A1 drone at its invitation-only exhibition during CES, which takes place in Las Vegas the week of January 5th. For more information or to schedule a demo tour, please contact your Ambarella representative or visit www.ambarella.com/products/aiot-industrial-robotics.

About Ambarella
Ambarella's products are used in a wide variety of edge AI and human vision applications, including video security, advanced driver assistance systems (ADAS), electronic mirrors, telematics, driver/cabin monitoring, autonomous driving, edge infrastructure, drones and other robotics applications. Ambarella's low-power systems-on-chip (SoCs) offer high-resolution video compression, advanced image and radar processing, and powerful deep neural network processing to enable intelligent perception, sensor fusion and planning. For more information, please visit www.ambarella.com.

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[1] The term "world's first" refers to the fact that, as of July 28, 2025, Antigravity has announced the market's first 8K all-in-one 360 drone. It captures high-quality 360 video directly without the need for an external 360 camera attachment. The drone features a built-in 360 camera, supports real-time data transmission, and allows users to adjust shooting parameters on the fly.

A photo accompanying this announcement is available at https://www.globenewswire.com/NewsRoom/AttachmentNg/d1284de4-30d5-416f-ba65-2c7c4f6eaf3f

Antigravity A1



The world's first 360 Drone from Antigravity built on Ambarella CV5