



Palladyne AI Secures U.S. Patent for Advanced Swarming and Autonomy Technology

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Patent establishes Palladyne AI's essential position in the rapidly growing autonomous systems market

SALT LAKE CITY--(BUSINESS WIRE)--Nov. 3, 2025-- [Palladyne AI Corp.](#) (NASDAQ: PDYN and PDYNW) ("Palladyne AI"), a developer of artificial intelligence software for robotic platforms in the defense and commercial sectors, today announced that the United States Patent and Trademark Office has issued the Company U.S. Patent No. 12,452,957 B2, titled "Closed Loop Tasking and Control of Heterogeneous Sensor Networks." The patent protects Palladyne AI's core architecture that allows multiple autonomous systems, including drones, robots, and sensors, to work together as an intelligent, coordinated team across domains, resulting in a heterogeneous swarm.

"U.S. Patent 12,452,957 B2 gives Palladyne AI ownership of the architectural framework that makes true real-world machine collaboration possible," said Ben Wolff, President and CEO, Palladyne AI. "Our technology transforms distributed sensors and drones into a single intelligent system capable of observing, reasoning, and acting collectively in dynamic environments – in essence, this patent protects the brain and nervous system of machine collaboration. It not only helps execute our vision for embodied, biologically inspired AI and collaboration; it provides the legal and strategic foundation for Palladyne AI to be the technological nucleus for swarm autonomy across domains."

The newly issued patent defines a method where diverse autonomous systems communicate and collaborate efficiently. Utilizing feature-based communication, devices with different sensors, including cameras, radar, and RF nodes, share only the most critical insights they extract. These insights are fused into a common understanding of the environment, allowing a network to continuously re-task and coordinate itself through a closed-loop feedback system. By exchanging only compact, meaningful information streams, Palladyne AI's architecture delivers resilient, edge-based performance even in environments where network bandwidth is contested or communications are limited.

To learn more about Palladyne AI's patented collaborative autonomy software, visit www.palladyneai.com.

About Palladyne AI Corp.

Palladyne AI Corp. (NASDAQ: PDYN) has developed an advanced artificial intelligence (AI) and machine learning (ML) software platform poised to revolutionize the capabilities of robots, enabling them to observe, learn, reason, and act in a manner akin to human intelligence. Our AI and ML software platform empowers robots to perceive variations or changes in the real-world environment, enabling them to autonomously maneuver and manipulate objects accurately in response.

The Palladyne AI software solution operates on the edge and dramatically reduces the significant effort required to program and deploy robots, enabling industrial robots and collaborative robots (cobots) to quickly achieve autonomous capabilities even in dynamic and or complex environments. It is designed to enable robotic systems to perceive their environment and quickly adapt to changing circumstances by generalizing (i.e., learning) from their past experience using dynamic real-time operations "on the edge" (i.e., on the robotic system) without extensive programming and with minimal robot training. Palladyne AI believes its software has wide application, including in industries such as automotive, aviation, construction, defense, general manufacturing, infrastructure inspection, logistics and warehousing. Its applicability extends beyond traditional robotics to include Unmanned Aerial Vehicles (UAVs), Unmanned Ground Vehicles (UGVs), and Remotely Operated Vehicles (ROVs). Palladyne AI's approach is expected to elevate the return on investment associated with a diverse range of machines that are fixed, fly, float, or roll.

By enabling autonomy, reducing programming complexity, and enhancing efficiency, we are paving the way for a future where machines can excel in tasks that were once considered beyond their reach.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including statements regarding the capabilities or future capabilities of the Company's technology and related software products, the benefits of the software and the industries that could benefit from it, and the applicability of the software to different kinds of machines (such as UAVs, UGVs and ROVs). Forward-looking statements are inherently subject to risks, uncertainties, and assumptions. Generally, statements that are not historical facts, including statements concerning possible or assumed future actions, business strategies, events, or results of operations, are forward-looking statements. These statements may be preceded by, followed by, or include the words "believes," "estimates," "expects," "projects," "forecasts," "may," "will," "should," "seeks," "plans," "scheduled," "anticipates," "intends" or "continue" or similar expressions. Such forward-looking statements involve risks and uncertainties that may cause actual events, results, or performance to differ materially from those indicated by such statements. These forward-looking statements are based on Palladyne AI's management's current expectations and beliefs, as well as a number of assumptions concerning future events. However, there can be no assurance that the events, results, or trends identified in these forward-looking statements will occur or be achieved. Forward-looking statements speak only as of the date they are made, and Palladyne AI is not under any obligation and expressly disclaims any obligation, to update, alter or otherwise revise any forward-looking statement, whether as a result of new information, future events, or otherwise, except as required by law.

Readers should carefully review the statements set forth in the reports which Palladyne AI has filed or will file from time to time with the Securities and Exchange Commission (the "SEC"), in particular the risks and uncertainties set forth in the sections of those reports entitled "Risk Factors" and "Cautionary Note Regarding Forward-Looking Statements," for a description of risks facing Palladyne AI and that could cause actual events, results or performance to differ from those indicated in the forward-looking statements contained herein. The documents filed by Palladyne AI with the SEC may be obtained free of charge at the SEC's website at www.sec.gov.

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