

ANDRÉS PINO

Senior Electrical & Systems Engineering Leader

Power Electronics · Sonar · Undersea Systems & Autonomy · Directed Energy · System Architecture

San Diego, CA

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Active Top Secret Clearance

PROFESSIONAL SUMMARY

Senior engineering leader with 20 years architecting and delivering complex hardware systems for defense and maritime customers — power electronics, undersea systems and autonomy, naval platform and seabed sensors, and directed energy. Lead multi-disciplinary teams across the full product lifecycle from concept and architecture through integration, test, and customer delivery. Programs span \$50M–\$350M+ across General Atomics, L3Harris, Terradepth, and Lockheed Martin. MS Electrical Engineering, Johns Hopkins (power electronics).

CORE COMPETENCIES

Power Electronics · Sonar & Acoustics · Undersea Systems and Autonomy · Directed Energy / HEL · Systems Engineering · Hardware Lifecycle · R&D Leadership · Technical Leadership · System Architecture · Team Management · Program Execution

PROFESSIONAL EXPERIENCE

General Atomics Electromagnetic Systems — San Diego, CA

Aug 2025 – Present

Senior Manager — Power Electronics & System Design

- Lead a team of 5 power electronics engineers supporting high energy laser (HEL) and electro-optical system programs ranging from \$50M to \$350M+, serving as principal technical authority on design reviews and system architecture decisions.
- Technical lead on a Reaper-mounted HEL weapon system program, driving the team from development through system integration to flight demonstration. Drove the team through critical design milestones on an aggressive delivery schedule.
- Serve as primary engineering stakeholder across multiple programs, collaborating with program managers to ensure proper staffing, resource allocation, and technical execution of power electronics subsystems.
- Provide architectural oversight and design review authority for ground-based and airborne directed energy programs, ensuring system performance, reliability, and compliance with customer requirements.

L3Harris Technologies — Salt Lake City, UT

Jun 2021 – Jul 2025

Chief Engineer / Senior Manager

- Directed complex Navy sonar programs (MK54, LWVAA, HELRAS, TB-29, TB-34A sensors), orchestrating cross-functional Acoustic, Integration & Test, and Specialty Engineering teams to meet strategic milestones.
- Led technical, fiscal, and operational management for all engineering programs, securing contracts worth over \$150M while managing a facility generating over \$50M annually. Achieved corporate financial targets including Free Cash Flow, Operating Income, and Return on Sales through innovative bids and budget oversight.
- Drove R&D of advanced textured ceramic technology, directing Ph.D.-level scientists and specialists to enhance material performance and refine manufacturing processes for next-generation transducer systems.
- Expanded the customer base by directly interfacing with key stakeholders at Naval Undersea Warfare Center (NUWC) and Office of Naval Research (ONR), establishing relationships that accelerated product adoption and technology transition.

Terradepth — Austin, TX

Feb 2020 – May 2021

Lead Electrical Engineer

- Led development of state-of-the-art Autonomous Underwater Vehicles (AUVs), leveraging advanced machine learning and AI technologies to meet stringent functional and sustainability standards in challenging marine environments.
- Owned the complete lifecycle of electrical system development, from research and design to parts procurement and final integration. Delivered sophisticated electrical architectures that enhanced overall system performance and reliability.

- Developed a novel heavy fuel generator system for autonomous recharging of lithium polymer batteries, extending the AUVs' operational endurance to one of the longest in class.

Lockheed Martin — Baltimore, MD

Nov 2014 – Jul 2019

Senior Electrical Engineer — Advanced Technical Leadership Program

- Managed a \$350K R&D budget and a \$4M Machinery Plant Control and Monitoring System (MPCMS) hardware budget critical to the operational success of Littoral Combat Ships.
- Led a team of 7 engineers developing key hardware projects, including layered laser defense systems, ballistic missile defense vertical launch systems, and SM-3 Block IIA missile integration and testing.
- Drove the frigate proposal process, overseeing down-selection and bid development and shaping the cost-model analysis for competitive proposals.

Senior Lead Hardware Engineer — Layered Laser Defense (R&D prototype laser weapon system)

- Led R&D of a pioneering layered laser defense system, developing critical components including the Weapon System Control Segment.
- Engineered and assembled lab test units for comprehensive system verification. Delivered a full-system prototype for Integration and Testing (I&T), preparing it for operational deployment.
- Guided a team through system design and prototype development, ensuring all components were integrated and met rigorous testing standards prior to field tests.

Lockheed Martin — Palm Beach, FL

May 2008 – Nov 2014

Lead Electrical Engineer — Marlin AUV Program (first commercial enterprise at LM Palm Beach; designed to survey offshore oil platforms, pipelines, and more)

- Led operation, maintenance, and system integration of Marlin AUVs, including troubleshooting and repairs at the component level. Ensured delivery of thoroughly tested and compliant vehicles within strict budget and schedule constraints.
- Designed and implemented advanced sonar suites, enhancing vehicle capabilities to meet critical customer requirements. Managed architectural development from system schematics to power distribution and network architecture, improving manufacturability, reproducibility, and reliability.
- Directed a multidisciplinary team of engineers, technicians, and assistants, coordinating full-system assembly of AUVs. Developed and executed detailed test procedures for sub-systems and integrated equipment.

Lead Electrical Engineer — RAP-VLA (rapidly deployable, autonomous detection, classification, and localization passive acoustic surveillance system)

- Created a rapidly deployable, autonomous passive acoustic surveillance system from concept through fully functional prototype. Oversaw integration and testing of complex sub-sea systems.
- Engineered custom power PCBs and innovative pressure-compensated alkaline battery systems, optimizing for low power consumption and high reliability in deep-ocean environments. Managed the full lifecycle of electronic design including system requirements, product selection, and assembly coordination.
- Produced comprehensive electrical documentation including system schematics, interconnect diagrams, and power distribution frameworks, meeting rigorous testing and operational standards.

EDUCATION

Johns Hopkins University, Whiting School of Engineering

Baltimore, MD

MS Electrical Engineering (Engineering for Professionals) — Power electronics and analog circuit design

University of Central Florida

Orlando, FL

BS Electrical Engineering — Microelectronics