

Alan DiPietro

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Proven leader, 15+ years management, systems integration and production experience with sophisticated computer-controlled electro-mechanical products. Proven technical personnel and project manager, experienced with large geographically diverse teams and multiple interdependent projects. Leader capable of providing motivation, inspiration and vision to the team, while maximizing each individual's unique skill sets. Ability to work hands-on with individuals at all levels. Extensive experience managing expectations while working in demanding fast-paced start-up development and production environments. Proven track record of recognizing/determining needs and fruitful opportunities, and deploying the most appropriate technical solutions to grow business while streamlining operations. Highly effective at extracting and synthesizing information from varied, often conflicting sources, and making quick, effective decisions in high-pressure situations. Consistently recognized for dedication and results.

iRobot Corporation, Bedford MA, Aug. 1998 – Dec. 2008

PackBot Program - Chief Engineer

Designed, developed, marketed, manufactured, and deployed life-saving robotic technologies, totaling \$500 million in product lifecycle revenue. Executed 50+ successful internal and external R&D efforts leading to more than 2,000 battle-hardened semi-autonomous battery-powered mobile robotic systems configured for Recon EOD Chem/Bio and many other missions domestically and internationally. Fielded and supported PackBot's remote presence and ability to manipulate distant environments to help keep law enforcement, military personnel and others out of harm's way. Awarded Chairman's & Rock Awards for outstanding achievement.

Program Development - Robot Building: Cradle to Grave

- *Optimized and simplified product families, combining multiple chassis, payloads, controllers, and accessories under a single "configure to order" model with plug and play capabilities to allow customers financial and mission flexibility, while simultaneously streamlining purchasing and production.*
- *Processed 1,000s of engineering change orders, while continuing to support production and reduce costs by analyzing and implementing changes to design, manufacturing processes and assembly techniques.*
- *Set up contract manufacturing facility in Dayton, OH. Provided production documentation and worked with managers and employees to define/refine the manufacturing process.*
- *Developed relationships with military and civilian customers, end users and decision-makers to better understand customer needs and drive new proposals and quotes, facilitating sales and deployment around the world.*
- *Assessed technical and project risks, and identified appropriate mitigation strategies. Reconciled costing, manufacturing, mechanical, electrical, software, and human interface requirements creating integrated branded PackBot system solutions.*
- *Oversaw qualification testing and user trials at private and government test facilities. Ensured compliance to both commercial and military standards.*

Personnel Development - Team Building: Greater than the Sum of the Parts

- *Served as technical lead for a team of 100 and as direct lead for 60 engineers across all disciplines, providing tasking, mentoring, reviews, and compensation adjustments.*
- *Hired the critical mass of the PackBot team based on current and future program needs, acquired the broad skill sets necessary to ensure growth for the program and personnel.*
- *Developed and shaped the team, establishing clear, achievable and well-prioritized goals. Established new organizational structure, roles, responsibility, and authority, to better address the needs of multiple markets.*
- *Communicated and implemented strategy and planning across multidisciplinary teams to quickly bring lessons learned to market.*
- *Created integrated training materials & trained technical and non-technical employees on new technology infrastructure and processes.*

Process Development - iRobot Building: Preparing for Future Growth

- *Advanced with iRobot Corp. from individual contributor to chief engineer as the company grew from 30 to 500 employees over 10 years, from start-up to SOX compliance.*

- Developed and implemented the infrastructure necessary to grow the PackBot Program, the Government & Industrial Division, and iRobot into the world leader of mobile robotics.
- Oversaw the development of engineering best practices, streamlined operations, release and change processes, standardization and migration of documents and SolidWorks Pro/E, PCAD/Altium design data into Windchill.
- Converted critical legacy product data & documentation to new standards for vaulting and change control in Windchill PLM.
- Integrated quoting, government change process, purchasing, and multiple external contract manufacturers into Windchill and Oracle workflows.
- Created program proposals and whitepapers. Provided forecasting, market analysis, and project planning.

Gecko Program - Principle Investigator & Program Manager

Designed, developed and delivered to DARPA's Controlled Biological Systems Program, miniature biomimetic legged wall walking robots biologically inspired through study of real wall crawling lizards. Surrogate vacuum and adhesive technologies were developed while UC Berkeley biologists worked to understand and reproduce the biological intermolecular attraction.

The Charles Stark Draper Laboratory, Cambridge MA, 1996-1998, Mechanical Engineer

Vorticity Controlled Unmanned Undersea Vehicle

Designed, prototyped and tested the VCUUV, a Thunniform 8ft 300lb battery power hydraulically actuated 4-degree of freedom free-swimming autonomous undersea vehicle with undulating fish-like propulsion and control, built to explore the convergently evolved advantages of natural undersea propulsion. Hull, propulsor shape, and motion determined from data gathered by measurement and observation of real yellow fin tuna. Design, structure and dynamics analyzed using Pro/E, Mechanica and Ansys. Contracted with suppliers, and internal/external manufacturing facilities employing cutting edge and age old techniques to assemble and test the system. Awarded Draper Lab Fellowship to pursue MSME.

General Electric, Aircraft Engine Business Group, Lynn MA, 1991-1992, Mechanical Engineer

Investigated production line problems, revised drawings to eliminate manufacturing and field problems. Supervised acceptance testing, analyzed and presented, system data, calculated bearing fatigue lives. Earned GE Engineering Recognition Award for assistance in new engine design.

Riverside Farm & Assabet Alpacas- Stow MA, 2004 – Present, Designer, Developer, Owner

Remodeled antique farmhouse and out buildings. Architect and designer of new open floor plan. Added bath, vaulted ceilings, loft, skylights, and windows. General contractor to carpenters, roofers, plumbers and electricians. Personally completed all finish work, cabinet installation, trim, and paint inside and out. Designed and built wet and dry stonework, using natural stone harvested from the property. Designed and custom built barn and rotational pasture layout for Alpacas. Currently designing solar powered irrigation system for farm.

U.S. First Competition – 1994, 2009 Mentor & Mechanical Engineer

Advised high-school students in design and construction of remote-controlled robots capable of collecting storing and delivering balls using CAD/CAM.

The American Tour De Sol – New England, 1992, Alternative Energy Advocate & Mechanical Engineer

Conducted feasibility study for US DoE of then current technology and construction of solar/electric vehicles. Public opinion poll, video, and multimedia presentations on solar/electric vehicles and '92 Tour.

Tufts University - Medford MA, 1998 – MSME

Worcester Polytechnic Institute - Worcester MA, 1994 - BSME