

Dave Coleman

(He / Him)

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I successfully delivered multiple complete product lines, balancing engineering and business needs from concept to live-on-the-market. Comfortable with ambiguous design problems, fast-paced engineering environments, and rapidly changing requirements. Proficient with a variety of programming languages. Extensive knowledge and hands-on application of electronics design.

Adept at project management, team leadership, and cross functional team communication and coordination. I work to ensure my teammates are supported and encouraged to bring their whole selves to work, where they're all given equal opportunities to thrive.

Neutronics, Bacharach, MSA Safety

Embedded Design Engineer, Principal Engineer, Engineering Project Manager (2010 - Present)

Primary HW/SW engineering resource on refrigerant analysis product lines that led to 80% market share. Project Manager for increasingly complex projects across multiple disciplines, sites, and companies. Championed and implemented critical infrastructure overhauls to improve documentation, communication, and quality.

Hardware Engineering

- Produced designs, schematics, component definitions, and layouts for 10+ PCBs across 3 product families.
- Designed and built proof-of-concepts and prototypes. Completed bring-up, debugging, functional verification.
- Experience with sensors, power management, and analog simulation.
- Designed for regulatory certification on every product.

Software Development

- Created embedded bare-metal and RTOS applications, bootloaders, and drivers.
- Built desktop applications, simulations, test automation, and scripts to gather production analytics.
- Used common embedded communication protocols often.
- Optimized algorithms to meet embedded platform constraints.

Project Management

- Managed scope, schedules, budgets, resources, change logs, risk plans on multiple flagship products.
- Maintained clear, regular, and concise communication channels with all stakeholders.
- Monitored progress, ensured problem transparency, proactively executed risk mitigating and corrective actions.
- Engaged and coordinated external resources and contract manufacturers.

General

- Responsible for architecting, implementing, testing, launching, maintaining hardware and software products.
- Hardware/software/mechanical co-design and low-level software development required on every product.
- Experience leading teams through mergers and acquisitions.
- Mentored Junior Engineers and Technicians.
- [Secretary of Defense Environmental Award 2013](#), [Motor Magazine Top 20 Tools Award 2019](#)

AirClic

Lead Electronics Engineer (2006 - 2010)

Performed electrical engineering duties for multiple products. Software development resource for firmware updates, mobile application drivers, and production test fixtures. Managed project plans and budgets.

- Produced schematics, simulations, component libraries, and PCB layouts.
- Developed mobile Java components to enable encrypted over-the-air firmware upgrades.
- Reverse engineered proprietary interfaces to enable product functionality.
- Enabled unique solutions for business processes at Disney, Waste Management, and UPS.
- Created and managed project plans and budgets for electrical, mechanical, and software components.

Lehigh University

MS in Computer Engineering, BS in Computer Engineering

Details

- Analog design for NDIR, Gas Sensors, Temperature, Pressure
 - Battery power systems for NIMH, LI, LiFePO4
 - Regulatory Certification Experience: CE, UL, FCC, SAE, TUV
 - Production Volumes from 300-10k annual per product variant.
 - Hand assembly of leadless, BGA, 0201 parts.
 - PCB routing: USB, DDR2, NANDFlash, 1-10A power systems
 - Lab equipment expertise: oscilloscopes, multimeters, logic analyzers, spectrum analyzers, custom
 - TUV Functional Safety training
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- Programming languages: ANSI C99, C++11, Python, Javascript, Java, Verilog, Papyrus
 - MCU architectures: ARM, M68HC12, ColdFire, PIC, Atmel
 - Development Environments: Altium Designer, CodeWarrior, Eclipse, Visual Studio
 - Communication Protocols: USB, I2C, SPI, UART, BT/BLE
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- Project Management tools: MS Project, LiquidPlanner, Smartsheets
 - Project Management techniques: WBS, Gantt, Agile Board, Scrum
 - Project Budgets from 30k-400k.
 - Documentation and process tools: SVN, JIRA, Confluence
 - PMI PMP training