

Lars Lentz

Senior Application Engineer at Robert Bosch, LLC

PROFESSIONAL PROFILE

I have worked extensively with brush-type and brush-less permanent magnet DC motors (PMDC) in design and application engineering roles. I have applied Lean principles to the engineering process and have worked on DFSS (Design for Six Sigma) projects to successful completion. I have EMC (Electromagnetic Compatibility) design engineering experience for DC electric motors and systems. I also have experience in managing electronic assembly laboratories, rental equipment, and the design, test, and installation of geophysical and groundwater clean-up instrumentation for EPA regulatory facilities. This includes design of explosion-proof and intrinsically safe systems, pneumatic logic, pumps, valves, and borehole logging/monitoring equipment.

CONTACT

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EXPERIENCE

Robert Bosch, LLC

MARCH 1999 TO PRESENT

Sr. Application Engineer, Airflow Motors, Pumps, Valves, HVAC, Engine Cooling

Apply, design, develop and test electric motors (PMDC brushed and brush-less), pumps, and valves for automotive applications worldwide. Coordinate the implementation of product manufacturing lines. Manage multiple customer projects and products. Produce and present technical sales presentations to customers. Provide direct customer service and establish close working relationships. Analyze and solve problems from product launch to end-of-life, using Shainin, Design for Six Sigma, DOE, TRIZ, and morphological analysis techniques. Established solid methods for solving numerous acoustic noise, vibration (NVH), electromagnetic compatibility (EMC), and other issues. Restructured and improved the engineering and manufacturing processes using Lean practices. Implemented benchmarking and field-monitoring programs with methods that are integrated into the product development cycle.

Calsonic North America, Inc

APRIL 1998 TO MARCH 1999

Application Engineer, HVAC Airflow Motors and Systems

Developed applications of HVAC systems and matched capabilities with customer requirements.
Created engineering test documentation for internal use.
Negotiated and wrote the HVAC test specification for Honda.
Designed, built and tested suppression circuits for electromagnetic compatibility of motor products to customer specifications.
Analyzed field returned parts and recommended countermeasures to the product design.
Supported manufacturing plant quality issues by analyzing the process and through planned experiments.

Fasco DC Motors, Inc

APRIL 1995 TO JUNE 1998

Product Design Engineer, Seat Motors / EMC Engineer

Designed and tested permanent magnet motors for various automotive applications.
Devised suppression circuits for motors to meet customer specifications.
Established and maintained the electromagnetic compatibility laboratory as the resident EMC engineer.
Solved motor-related noise and vibration issues as NVH engineer.

EnviroProducts, Inc.

APRIL 1993 TO APRIL 1995

Product Engineer, Environmental and Remediation Equipment

Designed groundwater remediation equipment, air logic circuitry, and pump systems, for hazardous areas using intrinsically safe and explosion-proof methods and equipment. Interfaced with customers and government organizations such as the EPA and regulatory agencies for sales and service including on-site demonstrations and marketing activities.

Keck Instruments, Inc

APRIL 1988 TO APRIL 1995

Senior Electronic Technician, Geophysical Instruments

Supervised the staff of technicians in an electronics assembly laboratory. Established and managed an equipment rental service. Designed and tested groundwater monitoring instrumentation. Designed and constructed pump systems and control panels for hazardous locations using submersible pumps and intrinsically safe devices. Brush-less pump motor experience.

EDUCATION

Michigan State University 1987 TO 1995
Bachelor of Science, Electrical Engineering

Lansing Community College 1984 TO 1986
Associate of Applied Science, Digital Electronics

Williamston Community Schools JUNE 1984
High School Diploma
High school with a college-preparatory educational focus.

Capital Area Career Center JUNE 1984
Certificate
Two-year vocational electronics program aimed at hands-on skills.

SKILLS

EMC, Electric Motors, Electronics, PowerPoint, Sparklines, Catia, Lean Manufacturing, Product Development, Design of Experiments, NVH, FMEA, Engineering, Six Sigma, DFMEA, Automotive, APQP, Manufacturing, Product Design, Automotive Engineering, Program Management, Engineering Management, Instrumentation, TS16949, Components, Root Cause Analysis, Continuous Improvement, GD&T, PPAP, SPC, Value Stream Mapping, Kaizen, Manufacturing Engineering, Testing, Supplier Quality, Injection Molding.
