

Embedded systems and control engineer

HRL Laboratories, LLC

For more than 60 years, HRL's scientists and engineers have been on the leading edge of technology, conducting pioneering research, providing real-world technology solutions, and advancing the state of the art. We continue to be recognized as one of the world's premier physical science and engineering research laboratories.

We're looking for the best and brightest scientists and engineers to help us develop the most innovative technologies for aerospace, automotive and defense applications. You'll have the opportunity to conduct basic and applied research as well as contribute to product development. You'll be positioned for unique career growth opportunities as a member of the research community serving our LLC Members, government and commercial customers. You'll also have a key role in shaping the future of technology.

Education Desired:

Bachelor's or Master's degree in Computer Science, Computer Engineering, Electrical Engineering, systems engineering or equivalent experience

Essential Job Functions:

Candidate will join a growing team developing next generation systems integrating high precision sensing technologies with advanced shock and vibration designs in a variety of applications under harsh environments. Job responsibilities include development of firmware and design and implement system software solutions to provide a high performance and robust embedded platform to application teams.

Perform on R&D projects in the development of MEMS-enabled electronic systems for next generation aerospace, automotive, and industrial applications. Develop Mathworks Simulink models for control (feedback, phase-locked loops, etc.) and I/O (audio, analog, RF, and digital). Transition Simulink models to embedded systems and standalone target hardware.

Experience Desired:

- Familiarity with Mathworks Simulink suite including Simulink Coder, State Flow, Simulink Real-Time, and related embedded products.
- Familiarity with Matlab and embedded systems related products, including HDL Coder, etc.
- Familiarity with Xilinx Zynq platform, Vivado development suite, and ZedBoard family of development boards and Mathworks specific target hardware such as Speedgoat systems.
- Related experience with DSPACE will be considered.
- General experience working with electronic systems in an ESD safe environment is a plus.

Knowledge Desired:

- Overall understanding of embedded systems, controller prototyping, and plant simulation models.
- Knowledge of best practices for Simulink project architecture.
- Knowledge of low-level hardware system languages such as Verilog/VHDL a plus.
- Knowledge with programming embedded systems in C/C++ a plus.
- Ability to interface above tools into Simulink platform a plus.
- Knowledge of embedded Linux operating systems a plus.
- Ability to diagnose and troubleshoot embedded systems on custom hardware platforms.

Essential Physical/Mental Requirements:

- Excellent written and oral communication skills
- Works independently to execute work plans, provide status updates and adjust to changing requirements.
- Strong documentation skills

Special Requirements:

U.S. citizenship or permanent resident status required.

Contact Jill Mulqueen at jmulqueen@hrl.com