Mechanical/Electrical Engineering and Technician
STUDENT POSITIONS
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The UW-Madison Physical Sciences Laboratory (PSL)
is seeking mechanical & electrical engineering and technician students to work with its engineering team and shops.

This is a great opportunity to gain unique engineering experience in the research sector. We will be looking for candidates that have an interest in small- to large-scale research instrumentation and a strong desire to apply and expand their current level of engineering expertise to real-world scientific applications. Some of the projects PSL continues to be engaged in include CMS (Compact Muon Solenoid at the Large Hadron Collider, CERN), the IceCube Neutrino Observatory at the South Pole, the LZ (Lux-Zeplin) Dark Matter Experiment, the Deep Underground Neutrino Experiment (DUNE), and many other smaller-scale projects in support of campus-wide research labs here at UW-Madison.

PSL supports the research initiatives of the University of Wisconsin-Madison and outside international and domestic research institutions by providing technical consultation, engineering design, and construction services to researchers in need of specialized instrumentation to conduct their research.

Duties of this position may include:

- Working with engineers, scientists, CAD specialists, and machine shop staff at PSL
- Perform engineering calculations and analyses via traditional methods and software
- Develop and execute test procedures on various components
- Work on drilling systems and instrumentation to support scientific missions in the Arctic and Antarctic
- Design and document parts and equipment, working with CAD specialists or directly with Solidworks
- Provide vendor research, support, and aid with purchase of equipment and hardware
- Work on the shop floor and in the field to assemble, integrate, test, and ship equipment
- Provide electrical engineering support in the areas of soldering, electronic testing, PCB layout, programming, and circuit design
- Assist in assembly and testing of instrument cabling and instrumentation electrical panels, and create electrical line drawings
- Participate in the development of PLC-based control systems, SCADA interfaces, and database management
- Perform system modeling to support the design, implementation, and testing of motion control algorithms
- Participate in widespread shop and campus cleanup, reorganization, and upgrades
- Ultra-high purity (UHP) and Ultra-high vacuum (UHV) cleaning, assembly, and testing
- Aid in writing and editing of technical documentation, schematics, reports and presentations

Some combination of a preferred mix of skills include: Solidworks, AutoCAD, Engineering Equation Solver (EES), Ignition, machine tools, hands-on technical skills...

PSL is located off-campus near Stoughton, WI. You must be able to provide your own transportation. Ideal candidates will be available “full-time for the summer, with interest to continue part-time once class is back in session in the fall.
Hours: 30 hrs/week max during summer, 10-20 hrs/week when school is in session
Pay range: $13-16/hr depending on qualifications
Send resumes to: Beth Danielak (edanielak@psl.wisc.edu)