

JOB DESCRIPTION - MECHANICAL ENGINEER

Summary

The Mechanical Engineer works primarily in DSM's Research Division and assists in the design and test of mechanical and electrical hardware and software. Contributing to the composition of written reports and proposals can also be an important part the engineer's role. DSM frequently develops piezoelectric and other specialized positioning systems, but the engineer's contribution will not be confined to these types of applications.

Essential Functions

- Perform engineering calculations by hand and using common engineering tools such as ANSYS FEA, MATLAB, SciLab, etc.
- Build solid models and assemblies using CAD software. Make machining drawings and bills of material from solid models and assemblies.
- Test prototypes and production hardware. Analyze test results by making Excel spreadsheets or more advanced techniques.
- Without oversight, reliably document test results, design configurations, and similar data. Documentation may be in a log book, spreadsheet, formal report, or other method.
- Contribute to proposals and reports by providing well-written summaries, as directed.
- Assist more senior staff, as directed.
- Work on assigned tasks diligently and in a safe manner that protects yourself and others.

Preferred Qualifications

- Completion of an ABET accredited Mechanical Engineering program, minimum of bachelor's degree with GPA of at least 3.0.
- Experience in applied engineering, at least as an intern or co-op engineer.
- Familiarity with common laboratory sensors and instrumentation such as encoders, LVDTs, multimeters, digital oscilloscopes, micrometers, and capacitive probes.
- Proficiency with solid modeling and basic understanding of machining drawings
- Understanding of good programming practices with application of them in a language such as LabVIEW or C++.

Work Environment

Generally works in climate controlled office or laboratory environment but may occasionally be required to perform duties outside the typical office setting. May at times work in a loud environment with nuisance noise. Limited overnight travel may be required.

Behavioral Expectations

- Internally motivated, “self starter” type personality.
- Reliable, can be trusted to work consistently on tasks without close supervision.
- Able to work on tasks individually or as part of a small team.
- A “life-long learner” that is willing to develop new skills and proficiencies.

Physical Demands

- Can assemble small (e.g. 3 x 3 x 4 mm) delicate components by hand and can manipulate small hand tools.
- Able to carry up to 25 pounds frequently.

Overtime Status: Exempt (Not eligible for “time and a half” or similar increased overtime wage)

Employees may be required to work with ITAR-restricted information, so applicants will be required to acknowledge their eligibility and acceptance of responsibility relative to ITAR before beginning employment. All employees must execute an employee non-disclosure agreement before beginning work at DSM. DSM is an equal opportunity employer.