

Techshot, Inc.

Job Description

Job Title: Mechanical Design Engineer
Department: Mechanical Engineering Department
Reports To: Chief Operating Officer
FLSA Status:
Prepared By: John Vellinger
Prepared Date: July 19, 2012
Approved By:
Approved Date:

SUMMARY

Designs and develops mechanical or electromechanical products or systems by performing the following duties.

ESSENTIAL DUTIES AND RESPONSIBILITIES include the following. Other duties may be assigned.

Work on project team (internal engineers and scientists) to develop mechanical hardware designs (systems, sub-systems, and components) for projects.

Confer with customer to clarify or resolve problems and develop project designs.

Prepares or directs preparation of product or system layout and detailed drawings and schematics.

Directs and coordinates manufacturing or building of prototype product or system.

Develops and analyzes operational, test, and research data to establish performance specifications for newly designed or modified equipment or product.

Plans and develops hardware test programs.

Develops test data and reports to determine if design meets functional and performance specifications by developing and implementing a verification plan.

Confers with research and other engineering personnel and prepares design modifications as required.

Evaluates engineering test results for possible application to developments of systems for commercial applications.

Researches and analyzes data such as customer design proposal, specifications, and manuals to determine feasibility of design or application to prepare the cost estimates for quotes.

Coordinates operation, maintenance, and repair activities to obtain optimum utilization of design.

Prepare and/or assist with project reports, monthly status reports, teleconferences, and all written/oral communications with, and required by, the customer.

Assist with business development activities by preparing quotes, estimates, and proposals.

In addition to these responsibilities, assistance with additional tasks deemed suitable by the Chief Operating Officer will be requested from time to time. Detailed instructions will be given in accordance with each task when assigned.

SUPERVISORY RESPONSIBILITIES - None.

QUALIFICATIONS To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

EDUCATION and/or EXPERIENCE

Bachelor's degree Mechanical Engineering (B.S.M.E.) from four-year college or university; or equivalent.

LANGUAGE SKILLS

Ability to read, analyze, and interpret general business periodicals, professional journals, technical procedures, or governmental regulations. Ability to write reports, business correspondence, and procedure manuals. Ability to effectively present information and respond to questions from groups of managers, clients, customers, and the general public.

MATHEMATICAL SKILLS

Ability to apply advanced mathematical concepts such as exponents, logarithms, quadratic equations, and permutations. Ability to apply mathematical operations to such tasks as frequency distribution, determination of test reliability and validity, analysis of variance, correlation techniques, sampling theory, and factor analysis.

REASONING ABILITY

Ability to define problems, collect data, establish facts, and draw valid conclusions. Ability to interpret an extensive variety of technical instructions in mathematical or diagram form and deal with several abstract and concrete variables.

CERTIFICATES, LICENSES, REGISTRATIONS - BSME

PHYSICAL DEMANDS The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Able to stand and/or walk under 1/3 of work time.

Able to sit 1/3 to 2/3's of work time.

Able to use hands to finger, handle, or feel under 1/3 of work time.

Able to reach with hands and arms under 1/3 of work time.

Able to climb or balance under 1/3 of work time.

Able to stoop, kneel, crouch, or crawl under 1/3 of work time.

Able to talk or hear 1/3 to 2/3's of work time.

Able to taste or smell under 1/3 of work time.

Able to lift up to 10 pounds 1/3 to 2/3's of work time.

Able to lift up to 50 pounds under 1/3 of work time.

No special vision requirements.

WORK ENVIRONMENT The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Able to work in moderate noise (examples: business office with computers and printers, light traffic).

Able to work near moving mechanical parts under 1/3 of work time.

Able to work around fumes or airborne particles under 1/3 of work time.

Able to work around toxic or caustic chemicals under 1/3 of work time.

Able to work in outdoor weather conditions under 1/3 of work time.

Able to work with with of electrical shock under 1/3 of work time.