

ROBERT S. FLIGHT, P.E.

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EDUCATION Clarkson University, B.S., Mechanical Engineering

TECHNICAL EXPERTISE In depth experience in Project Management and Engineering employing manufacturing techniques, mechanical design, development, analysis of machine elements and tooling components from concept thru production. Extensive knowledge of shop practices and procedures to manufacture components within specification. Strong knowledge of custom equipment, metal removal applications, and sheet metal processing. Extensive design and debug experience of custom automation equipment, tooling, jigs, fixtures, dies, and molds. Thorough product design experience and application of metallic and non-metallic products. Trouble shooting existing designs and products. Thorough knowledge of power transmission components, motors, computer simulation techniques, heat transfer analysis, belt drive systems, gear systems, hydraulic and pneumatic actuators, pump systems, spring design, shafting, injection mold design, and bearing selection and application. Government contract management experience from bid through completion. Familiar with setup, application, and use of PLC systems. FMEA and MPC process experience. Extensive use of SolidWorks, AutoCAD, Microsoft Word, Excel, Access, PowerPoint, Office, and Project.

CERTIFICATIONS Professional Engineering License, current 1986 to date.

& PATENTS Patents granted: 4,654,928, 4,672,713, and 4,689,850.

EXPERIENCE

10/04 to date **PROJECT DESIGN & MANAGEMENT-**

University of Rochester, Physics & Astronomy Department
University of Rochester, Laboratory for Laser Energetics

Assistant Project Manager for design, construction, and group integration of research projects funded by DOE that were assembled and installed at various laboratories worldwide. Responsible for accurate job estimating, scheduling, component design & detailing, analysis of mechanical components, and tracking from project start to project completion. Continually assisting professors, students, and technicians, at many universities to maintain schedules and budgets within targets. Coordinate team efforts with other groups at different project phases. All facets of design and FEA analysis is 3D, SolidWorks, AutoCAD, and Siemens NX based. All project presentations and progress tracking involve extensive use Microsoft Word, Excel, Access, PowerPoint, and Project.

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2/88 to 10/04 **SENIOR PROJECT ENGINEER**- Creative Designs of Rochester, Inc.,
Designers and builders of custom machines and equipment.

Supervise and direct Mechanical and Electrical engineers and drafters involved with concept, design, development, and build of automated machines, injection molds, tooling, jigs, fixtures, custom equipment, specialized product design, and analysis of mechanical components from concept through manufacture. Responsible for accurate job estimating, scheduling, and tracking from project start to completion. Continually assist customers. Oversee all aspects of the build phases of industrial projects to maintain schedules and budgets within targets for Government and Industrial contracts and customers. Projects have been in excess of \$15 million. Work closely with the area shops to monitor component manufacturability and project schedules. Coordinate team efforts with Mechanical / Electrical engineers and build leaders. Involved with design concept, design specific details, build sequence, and debug of machines. Created and supervised custom software creation in C, BASIC, and LISP to automate computer tasks, control automated machines, and automate data acquisition needs. All facets of designs are CAD based utilizing AutoCad, SolidWorks, Anvil, and Intergraph softwares. All job presentations and tracking phases involve extensive use of Microsoft Word, Excel, Access, PowerPoint, and Project.