

# GLENN S. GORDON

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**SUMMARY** Goal-oriented and resourceful professional with over 24 years of demonstrated ability in product design and development. A hands-on, creative, and innovative thinker with a wide range of skills including product conceptualization, engineering, prototyping, testing, and manufacturing.

**PORTFOLIO** <http://www.gsg.microminutes.com>

**EXPERIENCE** **Senior Mechanical Design Engineer – Special Projects Development**  
**Cummins-Allison Corporation, Mount Prospect, Illinois, 2005-present**

*Manufacturer of high speed coin and currency counting, sorting, and counterfeit detection equipment*

- Report directly to company President for utilization as a free thinker and idea generator for new product designs and concepts, principles of operation, prototypes, feasibility, and other problem-solving challenges.
- Served as project team leader on Cummins-Allison's Jetweigh project. Responsible for coordinating the product development process across various disciplines including mechanical, hardware, software, and manufacturing engineering, purchasing, production control, marketing, product service, product training, product management, and sales.
- Served as lead mechanical engineer on the LX, MM2, and CR projects. Managed master computer aided design (CAD) models for top-down design including cabinetry, coin switching, manifolding, bagging and bin related components. Modular and configurable designs are the basis of these next generation Cummins-Allison coin sorters which are replacing all JetCoin and JetSort products.
- Led cost reduction efforts on current designs and redesigns by reducing part count and creating multi-function modular components which serve to minimize material use, increase reliability, decrease noise levels, reduce assembly labor, and decrease installation time.

**Mechanical Design Engineer / Manufacturing Engineer**

**MotoPOD LLC, Poplar Grove, Illinois, 2009-present**

*Manufacturer of removable aircraft belly pods, folding motorcycles, and aircraft loading systems.*

- Managed the design and construction of composite pod for Van's RV-10 and Cirrus SR-22 for cargo and airborne sensing applications. Design work includes pod shell and associated structures, fuselage hard points, automatic fuselage latching system, sensor integration, tooling, load testing, installation of fixtures, plugs, molds, CNC toolpaths. Structures include composite foam core sandwich construction, fixture welded 4130 steel hard points, mounting provisions, and design accommodations for various sensor packages. This design is currently in flight testing and design evaluation for a standard category supplemental type certificate (STC).
- Created all CAD models associated with Van's RV-10 and Cirrus SR-22 pod designs, utilizing parametric top-down design methodology, dynamic mechanism design, and finite element analysis (FEA).
- Designed, prototyped, tooled, and produced the MotoLOAD system: A folding motorcycle loading system for the Piper PA-32 and PA-34 series aircraft. This system fits into the aircraft cabin footwell, installs in minutes without tools and was engineered to bypass the need for an STC with full approval by the FAA for FAR Part 91 operations.

**Electro-Mechanical Design Engineer / Manufacturing Engineer**

**Protech Structural Industries (PSI), Arlington Heights, Illinois, 1996-2005**

*Manufacturer of automated teller machine (ATM) kiosks & enclosures, pneumatic cash transfer systems, and other banking equipment*

- Designed, prototyped, and managed all PSI engineering projects since company's inception including: Modular ATM buildings, ATM surrounds, free-standing canopies, illuminated building sign boxes, vehicle clearance barriers, pneumatic cash transfer systems, turbine packs, and air-shifting valves.
- Interfaced directly with PSI's network of equipment dealers and direct sales customers for product support, graphics and artwork specifications, customization needs, and customer feedback for product improvement.
- Created the Evolution Series modular ATM buildings using pioneering monocoque construction techniques in place of traditional welded tube fabrication. Unique design concept secured PSI's market position and enabled acquisition of key accounts from major industry competitors.

**EXPERIENCE** **Owner / Electro-Mechanical Design Engineer**

(Continued)

**Inertia Designs Inc., Buffalo Grove, Illinois, 1996-2005**

*Designer and developer of mechanical and electro-mechanical products.*

- Designed and produced a pilot's approach plate holder which was sold exclusively through Sporty's Pilot Shop Catalog, a national catalog with an annual circulation of 7.2 million copies.
- Developed an upgrade for a chocolate logo embosser at a cost of 2% of the machine's retail value. Result was a 75% increase in output speed. Provided upgrade to machine's manufacturer for subsequent sales.
- Designed and sold a fully automatic, high-speed chocolate logo embosser from conception, prototyping, and testing, through end user product. Features include PLC control, pneumatic actuation, safety interlocks, diagnostics programming, and a user programmable interface.

**Design Engineer / Manufacturing Engineer / Plant Engineer**

**Chocolate Potpourri Ltd., Glenview, Illinois, 1991-1996**

*Manufacturer, wholesaler, and private-labeler of gourmet chocolates and confections.*

- Designed, fabricated, constructed, and installed all custom facility equipment including feeding, imprinting, punching, decorating, and cutting machines.
- Streamlined manufacturing processes through modification of production tools and machinery via process automation and ergonomic design.
- Oversaw build-out of a new 7,800 square foot production facility. Determined equipment layout and all associated architectural, electrical, plumbing, and HVAC requirements.

**SKILLS**

- **Design and Engineering:** Proven skill in creating imaginative, cost-saving solutions via multi-function component design, modular concepts, efficient use of raw materials, and minimal fabrication requirements.
- **Fabrication and Manufacturing:** Extensive design experience in sheet metal, machining, injection molding, rotational molding, vacuum forming, pressure forming, blow molding, die-cutting, aluminum extrusion, compression cutting, fiberglass and carbon fiber, vacuum bag composites, wet layup, resin infusion, and foam sandwich construction.
- **Technical Knowledge:** Materials, mechanics, hydraulics, pneumatics, automated electrical control systems, programmable logic controllers, AC, DC, and basic electronic systems.
- **Project Management:** Demonstrated aptitude to successfully manage both long- and short-term product design, development, construction, and manufacturing projects from initial planning stages, design and prototype, through refinement, manufacturing, and deployment.
- **Prototyping:** Craftsman level fabrication skills including extensive sheet metal experience, machining, riveting, CNC router programming, composites, plastics, woodworking, and finishing systems.
- **CAD:** Creo Parametric, top-down design, solid modeling, mechanism, surfacing, and FEA.

**EDUCATION**

**Southern Illinois University – Bachelor of Science, Aviation Management, 1991**

*Cum Laude, Dean's list all semesters*

*Coursework Included: Management, labor relations, planning, operations, technical writing, and CAD.*

**Southern Illinois University – Associate in Applied Science, Aviation Flight, 1990**

*Cum Laude, Dean's list all semesters*

*Coursework Included: Mechanical, hydraulic, fluid, electric and electronic systems, logic, and physics.*

**PERSONAL**

- FAA Commercial Pilot License with Instrument, Multi-engine, and Glider ratings, High performance, Complex, Glider tow, and Tail-wheel endorsements, FAA Aircraft Repairman Certificate.
- Approximate Flight Hours: 1250 Total, 115 Multi-Engine, 375 Tailwheel
- Restored 1941 Boeing model 75 "Stearman". Built RV-6 Kitplane. Currently own, fly, and maintain the 1987 Oshkosh AirVenture Plans Built Grand Champion Marquart MA-5 "Charger" NX6781G.
- Hobbies: Sport aerobatics, radio controlled airplanes, astronomy, telescope design and construction, home remodeling, rock climbing, camping, reading, chess, and piano.

**REFERENCES**

Available upon request.