

HOWARD MACK
3D-CAD Designer
MECHANICAL SYSTEMS/PNEUMATIC MACHINES
CONSUMER PRODUCTS/PLASTICS
INVENTOR / SOLIDWORKS / AUTOCAD
SEE WORK SAMPLES AT URL:
WWW.TECH3D.COM/PORTFOLIO
635 STONEPARK LANE
SUWANEE, GA 30024
770-633-3865

OBJECTIVE

Seeking Contract Opportunities to provide Mechanical, Machine, and Plastics CAD Design and Documentation to companies looking for highly skilled AUTODESK INVENTOR or SOLIDWORKS designers.

SOFTWARE SKILL SETS

- AUTODESK INVENTOR
 - Metal Fabrication
 - Frame Generator / Weldments
 - Sheet Metal
 - Surfacing / Plastics
 - Parts and Assembly Documentation
- SOLIDWORKS [Certifications]

CSWPA	C-TNS8ULYT3X
CSWPA-WD	C-RWDXERY8DP
CSWPA-SM	C-UVNWFY5JKFZ
CSWPA-SU	C-QWXPVZS78Z
CSWPA-DT	C-5QDK8SWVVK

DISCIPLINES

- Metal Fabrication
- Weldments
- Sheet Metal
- Surfacing
- Plastics
- Fabrication Drawings
- Assembly Drawings
- Bills of Materials Maintenance
- Engineering Change Orders
- Document Release Cycles

SOFTWARE LICENSES and COMPUTER

- SolidWorks
- Autodesk Inventor
- Dell Precision M6800 Laptop

CONTRACT EXPERIENCE

Nov 2018 – Current	ZODIAC AEROSPACE	Alpharetta, GA
<ul style="list-style-type: none">• Convert satellite antenna design and documentation from European standards to US standards• Modify designs as required• Modify fabrication drawings as required• Develop part numbering scheme• Generate new BOMs and assembly documentation		
Nov 2018 – Current	MP EQUIPMENT	Gainesville, GA
<ul style="list-style-type: none">• Develop proof-of-concept machine to automate forming processed poultry meat into poultry nuggets• Develop concept layouts• Develop details of fabrication, assembly, maintenance, and product change-over• Generate prototype fabrication drawings• Manage prototype assembly• Convert proof-of-concept into production model		
May 2018 – Nov 2018	CANTRELL	Gainesville, GA
<ul style="list-style-type: none">• Created parts manual documentation for poultry processing machines• Started with a complex machine that was designed and modeled as a single top assembly• The task was to break the top assembly into logical subassemblies• Created subassembly models, exploded views, and bills of materials for each new subassembly• Prepared documents for insertion into a manual		
May 2018 – July 2018	KD MANUFACTURING	Suwanee, GA
<ul style="list-style-type: none">• Redesigned and documented industrial bush fabrication machine• Replaced chain and gear drive system with a shaft and pinion gear system• Eliminated lag in system and improved overall accuracy• Redesigned weldment support frame to accommodate new drive		
Nov 2017– May 2018	SERTA SIMMONS BEDDING	Norcross, GA
<ul style="list-style-type: none">• Reversed engineered a semi-automated mattress manufacturing machine• The machine consisted of a conveyor system that integrated into a larger conveyor system• The machine also had an automated gluing system with integrated controls• Hands-on design, purchasing, prototyping, and documentation• Developed machine certification procedures• Managed controls development and programming implementation• Developed training and safety manuals for factory use• Created design, fabrication, and assembly documentation		

2014 Dec– 2017 Nov

DESIGNRESOURCES

Suwanee, GA

- Developed a prototype water play-station for the autistic community
- Developed an EyeGlasslight for the consumer industry
- Designed a flour recovery system for the Bakery industry
- Developed a micro brush dispensary machine for the dental industry
- Designed and objective position system for an automated multi-axis microscope

2014 Sept – 2014 Dec

JBTC / Stork

Gainesville, GA

- Mechanical Designer on food processing tower designs / redesigns
- Designed 40” tall weldment structures
- Designed chain driven conveyor systems
- Created Weldment documentation
- Created Assembly documentations
- Created Assembly BOMs and released BOMs for procurement
- Worked with Product Stream data management software
- Converted design and drawing documentation from AutoCAD to Inventor
- Worked closely with Sales Engineering to generate cost proposals

2008 Dec – 2014 Sept

ViaSat, Inc.

Duluth, GA

- Mechanical Designer for satellite feed systems
- Specialized in designing waveguide systems
- Designed Metal Fabrications
- Designed Weldments
- Designed Sheet Metal parts
- Created Fabrication, Weldment, Sheet Metal, and Assembly Drawings
- Used Geometric Tolerancing
- Generated Bills of Materials
- Engineering Change Orders
- Released Documents for Manufacturing
- Interfaced with Engineering, Purchasing, Shop Personnel, and Vendors

2008 April - 2008 Nov

ReproProducts, Inc.

Smyrna, GA

- Applications Engineer supporting Autodesk Inventor and AutoCAD
- Conducted assessments and recommendations for Engineering CAD use
- Provided CAD network implementations
- Provided Software trouble shooting / problem solving
- Conducted beginning and advanced training classes for Inventor and AutoCAD

2007 Aug – 2008 April

ViaSat, Inc.

Duluth, GA

- Mechanical Designer for satellite feed systems
- Specialized in designing waveguide systems
- Designed Metal Fabrications
- Designed Weldments
- Designed Sheet Metal parts
- Created Fabrication, Weldment, Sheet Metal, and Assembly Drawings

- Used Geometric Tolerancing
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- Released Documents for Manufacturing
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2007 May-2007 Aug

GTS Energy, Inc.

Atlanta, GA

- Mechanical Designer for developing Heat Processing Systems
- Systems included large sheet metal ductwork systems
- Configured Autodesk Vault for the engineering group
- Trained users on Vault
- Configured custom Content Center files

2001 Apr-2006 Dec

YKK-USA, Inc.

Marietta, GA

- Mechanical Designer for developing automation equipment to spool zipper product.
- GOAL: Spool at a rate of 2 m/sec with a measuring accuracy of +/- 300mm.
- RESULTS: Spooling at 2 m/sec with a measuring accuracy of +/- 50mm and product cost savings of \$100,000 /yr
- Mechanical Designer for modifying fly-installation prototype machine
- GOAL: Reduce number of parts of prototype by 25%.
- RESULTS: Reduced parts by 50%
- Mechanical Designer to develop a winding machine to automate the removal of an existing adhesive backing from a product, while attaching a wider adhesive backing to same product.
- Mechanical Designer to automate attaching zippers to wide fabric panels
- Provided Technical support for R&D group: Software Installation, Configuration, and Training.
- Created CAD standards that incorporated company workflow and procedures
- Implemented Autodesk Vault to improve reuse and overall efficiency of design data

EDUCATION

1985-1986

Caldweld Community College

Hudson, NC

1983-1984

Oglethorpe University

Atlanta, GA

1976-1978

Dekalb Community College

Clarkston, GA

***References available upon request**