

Marbert G. Moore, III

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Professional Objective Established creative problem solver ready and qualified to build, develop and lead teams in *New Product Design and Development* activities for electro-mechanical systems, processes and technologies.

Work Experience **Willow Street Design**, Liberty Hill, TX 2004-2006, 2008- 2014, Presently
President, Sr. Engineer Semiconductor, Energy, Automotive, Consumer Electronics

Providing full range of engineering services for several electro-mechanical projects, ranging from business plan writing to finite element analysis (FEA with Cosmos) and design work. Typical job starts with on-site review and the immediate suggestion of practical solutions.

Main projects listed below:

- Dynamic Analysis for high precision, very heavy equipment operating in high vacuum moving at 1 meter/second with accelerations of 1G. Goal was to minimize dynamic deflections and settling times through design changes based on analysis with FEA.
- Automated Equipment design and analysis for pipe manufacturer in O&G industry.
- Robotic Arm and support systems for semiconductor chemical mechanical polishing (CMP) processes (specialty fluids handling (piping, pumping, valving), assessing dynamic rotational loads, overall electronic control system design), beta system in process qualifications, also designed a innovative multi-staged/multi-layered stacked gaseous/liquids fluids separator.
- Electronics Packaging for Oil&Gas, Aviation and Commercial Security systems
- Willow Wheel- first of kind Hubless Rear Wheel for various types of vehicles.
- iMir- first and only radio (XM Satellite) in a mirror for personal vehicles.
- Talki- first ever full-duplex BlueTooth based intercom for personal vehicles.
- Ranger- first device to use iPod as wireless source and remote control for stereos.

4 patents pending. All design/analysis performed in **Solidworks/Cosmos/Simulation**.

ClearCorrect, Round Rock, TX
VP of Engineering/R&D Dental Appliances

Dec 2013 – Mar 2019

Reporting to the CEO, responsible for development of New Equipment/Processes/Technologies, maintaining established production equipment and Maintaining/Modifying all building facilities. Serving as Principal technical resource and manager of technical staff. Helped steer the growth and development of the company from \$12M/yr to \$50M/yr and acquisition by Straumann. Primary problems addressed and resolved: equipment uptime and availability, major expansion of capacity and throughput per process and overall reduction of reject rate from 25% to 3%.

Main projects listed below:

- Design of Robotic Cutting Station for cutting 3D curvilinear path for dental appliances
- 3D Printers, Production: installation/maintenance of 30 polyjet printers
- 3D Printers, Advanced Development: qualifying new technologies and methods
- Centrifugal/Vibratory Tumbling processes advanced cleaning of 3D printed parts
- Thermoforming Equipment for molding dental appliances, development/enhancement
- Laser Marking and Vision Systems: development of advanced part marking methods
- CT Scanner: selection, installation and qualification for Production

1 patent issued, 1 pending. All design/analysis performed in **SolidWorks**.

Deepflex, Houston, TX

July 2006 – Jan 2008

Director of Engineering, Project Manager, Sr. Engineer Oil & Gas

Designed and built equipment used to fabricate flexible pipe for the Oil & Gas industry. These automated electro-mechanical systems included the following:

- Hydraulically powered under-roller for rotating 30 foot diameter welded structure.
- Electrically powered 75 foot diameter rotating platform for carrying 3.5million pounds.
- Material (web) handling equipment for creating rolls of tape (.03in thick) 7 feet in diameter at 300rpm.
- Designed upgrades for 25ft diameter rotating structure carrying 72k pounds at 6rpm.

2 patents issued. All design/analysis performed in **SolidWorks/Cosmos**.

Concurrent Design, Austin, TX

Feb 2003 – Feb 2004

Program Manager, Sr. Engineer

Semiconductor

Managed team of engineers (17) performing the Design & Development of a new Etch tool (semiconductor capital equipment). Responsible for all customer interfacing, design of System Architecture (mechanical and electrical system) and specification of purchased items. Project had a \$1.35 million dollar budget. Tool outperformed specification.

- Specification and incorporation of robotic wafer transfer system.
- Design of robotic mechanism for wafer centering and precision location (+/-50microns).
- Design of specialty gas evacuation intakes using Computational Fluid Dynamics.
- System design of specialty gas (inert/toxic) and fluid (coolant) control/delivery.

Design/analysis work conducted using **ProE**, some **Solidworks**.

Education

Texas A&M University, College Station, Texas.

B.S. Mechanical Engineering Technology

Professional Skills

Engineering:

Mechanical-

AutoCad, ProE, SolidWorks

Electrical-

Pcad, Orcad, various board layout (pcb routing) packages

Analysis-

Simulation, Icepak, CFD, Volume Graphics

Management:

MS Project, Excel, Word, PowerPoint and Visio, Business Plans

Programming:

Script writing, G-code, Basic, C++, Visual Basic, ABB Rapid

Publications

Patents:

Modular Carousel Assembly 2010-02-23, US# 7,665,685/B2

Layered Tape Guide Spool 2010-08-31, US# 7,784,723/B2

Batch Thermoformer 2019-05-14, US#10,286,594/B2

(Pending) Multi-Material Building of Complex Part with 3D Printers

Software Standard:

FACE Technical Standard for Military Avionics

Jan 26, 2012, Open Group

Teaching

Residential Architecture, ITT

Mechanical Design, ITT

Youth Soccer Coach, Certified D License

USSF Grade 8 Referee Soccer