

Mario D. Molina

Industrial Designer | Graphic Designer | Photographer | 3D Modeler | Rapid Prototyping | 3D Scanning

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Creative, high-energy designer with thirteen years of experience in product design, rapid prototyping, packaging and graphic design. Developer and Designer of industrial products including mechanical design of domestic appliances, medical devices, architectural design of interiors, consumer products, 3d environments for professional simulators, animations, services, toys, among others. Combining artistic talent with research on product use, ergonomics, marketing, and materials to create functional and attractive designs.

Expertise

•New Products Design •Market Research •Customer relations •Concept Developer •Model Making and Prototyping •Production and Post-production •CAD/CAM •Principles of Mechanical Engineering and Electronics •Package and Product Visualization

Education

B.Sc. Industrial Design

Higher Institute of Design (ISDI) La Habana, Cuba

Graduation Date: Aug, 2008.

Work Experience

November 2019 to Present

Birka, Doral, Florida. United States

CAD Drafter / Project Manager / Graphic Designer / Rapid Prototyping and Developer Specialist / Design Consultant / Research and Developer / CAD-CAM Specialist / Media Developer / Retail Store Designer / Furniture Designer and Developer

- Analyzed store space and layout to assess display design requirements.
- Collaborated with wholesale partners to develop and implement visual merchandising directives.
- Communicated with the different departments involved in the process to ensure that all the projects are completed within the timeline.
- Created and modified drawings on a daily basis.
- Created concept plans/elevations/renderings as required for review and approvals.
- Created final design intent drawings (in CAD) for submission to vendors for cost estimating.
- Designed 3D design layouts for clients approval.
- Executed design and fabrication standards for department store counter construction and continued to investigate new finishes, details and technologies.
- Managed both the design process and developing clear & concise construction documents.
- Researched current and upcoming design/industry trends/new concepts/materials/innovations.
- Sourced material samples, vendors, and designers to assist in design progression and evolving concepts.
- Supervised the construction operations for wholesale shop installations.
- Validated floor plans, store layouts and overall design.
- Worked with visual merchandisers and merchandisers to develop seasonal merchandise layout plans.

October 2016 to January 2019

Byoplanet International, Sunrise, Florida. United States

CAD Drafter / Mechanical Designer Specialist / Graphic Designer / Rapid Prototyping and Developer Specialist / Design Consultant / Research and Developer / Solidworks Specialist / Media Developer

Conceive, design, and develop electro-mechanical components and mechanisms for advanced chemical delivery systems, as well as rapid prototyping for quick testing of the products developed.

- Procure and test prototypes of parts and assemblies produced with CAD solid models, detailed drawings, layouts, and assemblies, to obtain a real-feel rapid prototype of the actual design.
- Create engineering change orders, purchase requisitions, material billing and tracked parts; create part databases using Microsoft Office software as well as Solidworks BOM (Bill of Materials) database.
- Support the manufacturing division to improve and trouble-shoot assembly procedures, reducing defects and assembly times.
- Field first prototypes from concept sketches to completion in less than one month.
- Revise, cooperate and assess designs together with team members to ensure quality and manufacturability flow.
- Advise on parts, drawings and assemblies in order to make them fit in terms of form, function, manufacturability, material costing, simplicity and strength.
- Design precision parts and assemblies to achieve system accuracy at the micron level.
- Create and submit representations at design review meetings.
- Develop complex 3D Models, 3D assemblies, and 2D using CAD softwares as Autocad, 3d Studio Max, Solidworks, and 3d scanning tools.
- Maintain and update files and drawings database.
- Maintain open and effective communications with project team members to increase productivity.
- Prepared projects based on 3D modeling to final drawing shop fabrication using SolidWorks.
- Design detailed mechanical components based on the engineering team's preliminary sketches and ideas.

September 2016 to November 2016 (Three-Month Contract)

Little River Box Company, Miami, Florida. United States

CAD Drafter / Graphic Visualization / Technical Consultant / Exterior-Interior Designer

Designing temporary, semi-permanent and permanent solutions based on shipping containers for rapid deployment, short term events and permanent installations, at the service of the Hospitality and Event industry.

Job Description

- Developing products such as retail pop up stores, pop-up, kitchens, kiosks, bathrooms, homes, galleries, among others with a premium fit and finish.
- Displaying products strategically to draw customer's attention to size, color, and place subject to the existing space; and furnishings accordingly.
- Rendering overall interior design projects promoting design services and results.
- Creating and presenting design concepts using detailed color boards and tabletop presentations.
- Working closely with architects in meeting deadlines and keeping with project schedules and budgets.
- Designing spaces at the request of customers who want to improve interior aesthetic quality upon presentation of their projects.
- Creating aesthetic yet functional computer- aided structural drawings spaces for homes, offices, restaurants, boutiques, etc.
- Sketching preliminary design blueprints.
- Converting handmade sketches into 3D and 2D CAD master drawings complying with customers' preferences, using AutoCAD and other CAD softwares for plan drafting as required.
- Ensuring projects meet customers' budget and deadlines
- Preparing design installations.

October 2015 to August 2016

Hello Printing Ideas, Miami, Florida. United States

CNC Programmer / Design Consultant / Project Developer / CAD-CAM Specialist

CNC expert with hands-on experience in blueprint interpretation and accurate machine set up. Full command over software and programming languages for specific automated functions. Oversee machines to make sure that proper shapes are cut from metal, wood, foam, cardboard, plastic, composite, among others.

Job Description

- Read and interpret blueprints to understand work orders.
- Plan machining activities keeping in mind work orders and engineering plans.
- Refer to specifications, orthographic drawings and reference plans to understand projects effectively.
- Work with geometric dimensions and tolerances to plan machining activities.
- Check stocks inventory to ensure availability of appropriate stock to start a machining project.
- Anticipate stock requirements and order low supplies.
- Enter instructions and program offset, hatch (2D, 2.5D and two or multiple side parts), drill points, engraving, pyramid, cutoff operations; including reference points to ensure a smooth machine running.
- Safely load and unload castings and raw materials into the machinery.
- Meet tolerance environments of the machine by setting gauges and measuring instruments appropriately.
- Carry out preventive and regular maintenance service of machines, equipment and tools for all processes.
- Follow-up machining processes from beginning to end to ensure parts quality.
- Troubleshoot machining problems during processes to ensure efficacy.
- Ensure that all CNC machines are lubricated properly before starting any process.
- Create appropriate labor and time reports following superior instructions
- Provide tooling and fixturing improvement solutions as required during machining procedure.
- Complete reports and any other paperwork related to the machining project in progress.
- Complete fine tuning of software to obtain desired quality of end product.
- Getting to know the ensuring quality in order to take correctional measures accordingly.

March 2014 to August 2015

3D Chimera, Miami, Florida. United States

Industrial-Mechanical Designer / Project Developer / 3D printer repair services

Seven years experience in the 3D printing field during which I gained knowledge on the new tech works and how they can be used in daily life.

Job description

- Customer incoming files handling and computer aided repair, modification and preparation for rapid prototyping.
- Design process management from project briefing through production, including prototypes, testing and analysis to ensure the product meets specifications.
- Gasping customers' basic ideas and developing profitable products.
- Creating 3D models using CAD software, via 3D scanning or using a regular digital camera, and photogrammetry software.
- Examining incoming files with manifold errors for their fix up.
- File processing using multiple kinds of slicers including, Slic3r, Skeinforge, Kisslicer, Makerware, Simplify3D, Cura Engine, Repetier Host, Matterhackers, among others.
- Printer setting- up improving prints with a high quality look and correct tolerance.
- Parts post-processing for high quality products
- Finished parts packing and shipping.
- Mechanical engineering design.
- Repair and maintenance services for 3D printing machines including FDM, SLA, Powder based Printer (Zcorp).
- Building FDM 3D printing machines, undertaking mechanical, electronic, programming and quality control testing
- Product design layouts and manufacturing drawings drafting.

November 2013 to March 2014

KOKO Design Studios, Miami, Florida. United States

Graphic Designer / Project Maker / Media Graphics Installer

- Advertisement designer.
- Graphic, corporate logos, postcards, fliers, brochures, invitations, greeting cards, banners and posters design.
- Typography.
- T-shirt design.
- Branding.
- Packaging design.
- Photography.
- Efficiently processing orders, invoices, and job orders.

June 2012 to December 2012

ISTMO American University, (UNAM Incorporated), Coatzacoalcas, Veracruz State. Mexico

Professor in the Graphic Design Career / Graphic Designer

- Professor for Graphic design.
- Lecturer on Material Graphic Design including: Descriptive Geometry, Graphic Design Methodology, and Computer Applications to Design.
- Designing promotional billboards and postcards at the request of UNAM.
- Designing the University's identity manual.

November 2008 to May 2011

NEURONIC Enterprise, CNC (Center for Neuroscience), Havana, Cuba

Mechanical Designer / Design Team Leader / 3D printing Specialist

- Detailed drawing development including specifications for medical equipment, matrixes, tools and controls, using computer aided-design (CAD).
- Designing and laying out schemes, orthographic and oblique drawings (perspective and isometric) describing the functional relationship among components, assemblies, systems and machines.
- Consultation on behalf of experts on design, drawing and reviewing for component or system details, or design troubleshooting.
- Research on adequate materials for project development, including testing.
- Specifications, sketches, drawings, ideas and project related data review and evaluation, on component design, procedures and instructions.
- Product design, reviewing and correction of deficiencies to reduce production problems and costs.
- Mathematical formulae design to develop detailed specifications for components and machinery (computer-aided).
- Positioning and comments on drawings.
- Full size or scale model design of furniture, equipment bodies or components.
- Computer-aided technology manufacturing (CAM, 3D print).
- Equipment and peripherals design for the diagnosis of neuronal and motion diseases, marketed by the company.
- Neuroscience and Neuro-Technology Research.
- Advisor for an industrial design thesis on "Monitoring Equipment for Brain Surgery".
- Product developing and follow-up.
- New and innovative product development
- Project variant developing for new production lines.
- Design team leader.

September 2001 to June 2003

SIMPRO (Professional Simulators Enterprise) Havana, Cuba

Project Designer / 3D Modeler

- Virtual model developing.
- 3D modeling.
- Virtual cities designing.
- Flight simulator testing.
- Game ideas developer.
- Characters animation (rigging).

Skills

- Tools design techniques including technical drawing, sketches and modeling.
- Computer knowledge (SolidWorks, Autodesk Inventor, AutoCad, 3D Studio Max, Poser, Sketchup, CorelDraw, Adobe PhotoShop, Adobe Premier, Microsoft Office applications)
- Slicers: Simplify3D, Makerware, Kisslicer, Slic3r, Skeinforge, Cura Engine, MatterControl
- 3D Scanning Knowledge, 123D Catch (Photogrammetry), Agisoft Photoscan (Photogrammetry), Structure Sensor, GoScan, HandyScan, David Vision System.
- 3D Model Editors: Netfabb, Meshlab, Meshmixer
- In depth knowledge of conceptual design, design refinement, rapid prototyping methods and design for high volume manufacturing.
- Ability to communicate through design sketching, models, renderings, specifications and presentations.
- Broad knowledge of electronic components.
- English and Spanish proficiency.
- Teaching experience on design, training programs aimed at groups or individuals, and evaluation of training programs.
- Optimization of time management.
- Ability to work under pressure and with a team.
- Valid driver's license with immediate availability and flexible schedule.