

SIGMA DESIGN COMPANY

Turning Smart Ideas into Product Solutions

TURNING SMART IDEAS
INTO PRODUCT SOLUTIONS

SIGMA DESIGN COMPANY

Trusted by hundreds of manufacturing firms to transform smart ideas into successful products and machinery.

1000+ design/build projects since 1999.

MARKETS SERVED

Aquaculture
Consumer Products
Clean Technology
Electronics
Filtration & Separation
Food & Beverage
Medical Device / Laboratory
Marine
Renewable Energy

SERVICES PROVIDED

Advanced Engineering Analysis

- FEA, CFD: Stress, Heat Loads, Fluid Flow
- Materials Selection: Plastics, Metals, Composites
- Manufacturing Process Layouts

Design / Build / Test / Validate

- New Product Pilots and Prototypes
- Test Stands and Quality Inspection Systems
- Assembly Work Stations
- Laboratory Appliances

In-House Manufacturing

- Welding: TIG, MIG, SMAW
- CNC Machining
- PCB Microprocessor Design / Build
- 3D Printing
- 200 GPM Water Test Loop
- Control Panel Fabrication



STATEMENT OF QUALIFICATIONS & CAPABILITIES

Sigma Design Company

200 Pond Avenue
Middlesex, New Jersey 08846

Technology Commercialization and New Product Manufacturing Center

Phone (732) 629-7555
info@sigmadesign.net
www.sigmadesign.net

Certified Veteran Owned
Small Business Enterprise



200 Pond Avenue | Middlesex, NJ 08846
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STATEMENT OF QUALIFICATIONS

Company Overview

CREATIVE | ON TIME | ON BUDGET

Sigma Design Company, LLC is a one-stop engineering and manufacturing resource for the development of specialty equipment and engineered systems.

SIGMA DESIGN TIMELINE

1962 Established

1999 Acquired by Current Owner

2011 Moved to a State-of-the-Art Manufacturing Facility in Central New Jersey

2019 Nationally Certified by NVBDC as a Veteran-Owned Small Business

SKILL SETS

Idea Creation, Human Factors (Industrial Design) Collaboration, Concept Development, Engineering Analysis, Material Selection, Complex Mechanism Development, Prototype Development, Fabrication, Testing & Selection of Smart Manufacturing Approaches

CAGE Code: 7B389

DUNS Number: 003975539

NAICS CODES

332710 Machine Shops

333241 Food Product Machinery Manufacturing

333249 Other Industrial Machinery Manufacturing

334513 Instruments & Related Products Manufacturing for Measuring, Displaying & Controlling Industrial Process Variables

335999 All Other Misc. Electrical Equip. & Component Manufacturing

541330 Engineering Services

541340 Drafting Services

541420 Industrial Design Services

541690 Other Scientific and Technical Consulting Services



WE LOVE TO MANUFACTURE
THE SYSTEMS WE DESIGN

MISSION STATEMENT

Provide customers with creative, affordable and easily manufactured designs and manufacturing assembly solutions that achieve their mission, product and revenue goals.

Sigma Design Company provides professional engineering and design services including new product development, complex mechanisms and machine design, 3D modeling, stress analysis, heat transfer analysis, flow analysis, patent support, manufacturing drawings, geometric tolerances and CADD drawings. We also offer dedicated 500 square feet to 10,000 square feet manufacturing cells that are fully staffed and tooled for assembly of high-value systems in low production volumes.

Novel, new products are conceived, designed, engineered and manufactured – right here in the USA – at Sigma’s 20,000 SF corporate state of the art facility in Middlesex, NJ.

WHY SIGMA?

Sigma Design has the in-house resources and expertise to commercialize customer ideas. Sigma’s professional team works collaboratively with our customers to get reliable, well engineered products to market faster and at higher margins.

Since 1999, Sigma Design Company has earned the trust of hundreds of global manufacturing firms, transforming 1000+ design and design-built projects into successful products and specialty equipment in use world-wide.

Sigma Design has partnered and built multi-million dollar projects for global companies. Our experience shows that the most efficient ways to ensure you get that best product at the best manufactured cost is through a multi-stage approach. Each stage has a deliverable, which gives you a better control of the project.

Turning Smart Ideas into Product Solutions is more than our slogan; **it’s what we do best!**



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Resources & Credentials

Sigma's professional team includes project managers industrial designers, electrical engineers, mechanical engineers, mechanics, plastic parts designers, structural engineers, technical researchers, technicians and welders.

OUR STATE-OF-THE ART FACILITY



Sigma's 20,000 square feet **Technology Commercialization & New Product Manufacturing Center** features:

- Design Office – Electronics Design Center with In-House FDM Rapid Prototypes
- Fabrication Area (Welding, Machining)
5,000 square feet of work space
- Manufacturing Assembly Area
12,000 square feet of total work space to accommodate production cells (500 SF to 10,000 SF each)



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OUR CREDENTIALS

Licensed Professional Engineers (P.E.) in the States of New York and New Jersey

Patented Designs – Adaptive Hydrokinetic Energy Harvesting System, Self-Cleaning Filtration System, Ballast Water Treatment, Centrifugal Separator, Other Patents Pending

Professional Memberships – The American Society of Mechanical Engineers (ASME), The Society of Naval Architects & Marine Engineers (SNAME), The American Filtration Society (AFS Board)



THE SIGMA TEAM

*Our skills, creativity and drive to succeed are what have made us the **design source of choice** for hundreds of satisfied customers.*

The management at Sigma Design believes that the best way to achieve customer goals is through a focused team approach. This is where our employees make the difference. Their skills, creativity, and drive to succeed are what keep customers satisfied with our work. Any business can buy a CADD station and with some training, call themselves "designers". At Sigma, our veteran designers actually understand how things work. We blend the best aspects of their experience with the latest in new technology to meet client goals.

OUR HISTORY & STAFF

Gerard J. Lynch, P.E. acquired Sigma Design Company (a machine design firm founded in 1962) on February 15, 1999. Together with his staff, he has transformed the business into a single-source provider of new product and manufacturing services (1,000+ design-build projects completed to date for hundreds of clients).

The Sigma Design Team consists of smart, creative people who enjoy digging deep into a project challenge to provide clients with solutions uniquely designed to meet their product development and manufacturing goals. Our Professional Services Team includes:

- Design Engineers and Licensed Professional Engineers
- Engineering Welding Technicians
- Electro-Mechanical Technicians
- Customer Quality Care Specialists



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Professional Services Overview

Sigma Design Company offers professional design, engineering and manufacturing services to global customers from a wide range of industries.

COMPREHENSIVE SERVICE MENU

- **Design / Build Engineered Systems & Machines**
Preliminary Design Review, Design Refinement, Final Design Package, Vendor Review & Selection
- **Analytical Appliances & Test Equipment Development**
Design / Build Laboratory Processing Equipment & Analytical Test Systems per IEC 60601 & UG 60601 Guidelines
- **Advanced Engineering**
Engineering Analysis & Product Simulation
Problem Solving & Design Optimization
- **Filtration**
Filtration Engineering, Problem Solving & Design / Build Support
- **New Product Development**
Creative Design Solutions for Development of New Products
Visualization to Increase Product's "Buy Appeal"
Manufacturing-Friendly Design to Lower Production Costs
- **Machine Design**
Flexible Machine Design to Support Lean Manufacturing
- **Reverse Engineering**
Reverse Engineering for New Product Development
- **3D Rapid Prototype**
New Geometry Design & Rapid Proof of Concept
- **Electronics Design**
Electronic and Microprocess Design & Manufacturing

PDF Brochures for all of the above services are available at:
<https://www.sigmadesign.net/brochures/>



TRUSTED RESOURCE

*Our customers rely on us to be creative,
on time and on budget.*

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Since 1999, Sigma Design Company has delivered over 1000 successful design and engineering projects saving manufacturing literally hundreds of thousands of dollars.

Design Engineering Success

Over 50% of most new product development projects fail. Sigma's team uses advanced engineering, simulation and rapid prototyping to successfully reduce risks and costs associated with failures.

From smart engineering ideas to sound product solution, Sigma is your [single-source engineering and manufacturing solution provider](#). Sigma has proven expertise in:

- Design / Build of new products, specialty equipment and analytical appliance;
- Executing new project development projects; and
- Managing the whole process from bench tests to pilot or full-scale production.

Patented Designs

All IP rights are 100% retained by our customers.

- Adaptive Hydrokinetic Energy Harvesting System
- Self-Cleaning Filtration System
- Ballast Water Treatment
- Centrifugal Separator
- Other Patents Pending



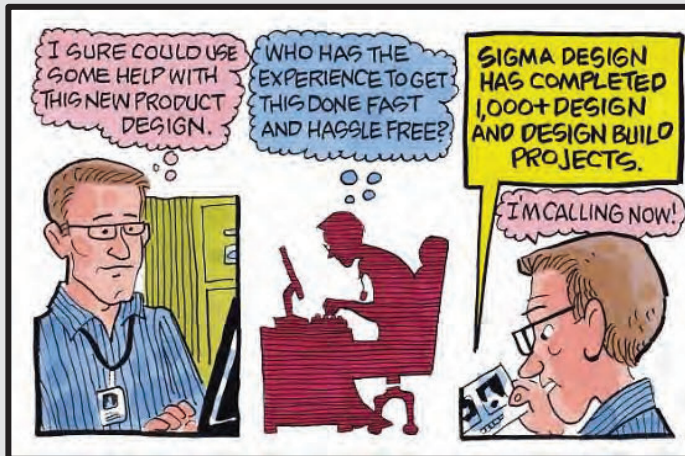
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Customers & Past Projects

Saved Again by Sigma Design!



PAST PROJECTS

Medical & Surgical Devices

Heart Dilator, Tissue Embedder, Surgical Instruments, Blood Centrifuge, Surgical Implants (3D Geometry, Hip, Knee), Prosthetic Devices, Powered Exercise Equipment & More

Food Processing

Automatic Assembly & Package Sealing Machines, Sterilization Systems & More

Consumer & Industrial Products

Harley Davidson Parts, Time Clocks, Pool Vacuums, Filters & More

NAVSEA – Naval Sea Systems Command

Desalination Potable Water Unit Filtration System & Test Laboratory for CVNX Aircraft Carriers

NYPD – New York City Police Department

Boiler System Design & Public Bid Specification Packages

USACE – U.S. Army Corps of Engineers

Hydropower Station Turbine Platform

USBR – U.S. Bureau of Reclamation

HOOVER DAM and PARKER DAM
Self-Cleaning Filters for Zebra Mussel Removal / Protection

"I have worked with Sigma Design for many years on all kinds of projects and have found them to be professional, dependable and most importantly, extremely competent. I recommend them highly".

President – NYC Industrial Design Firm





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