The market leader in mechatronics and detailed engineering design services

Simplexity®
PRODUCT DEVELOPMENT
Simplifying the Complex®

Helping next gen technology companies...

Are you a technology company that needs to:

- Shorten R&D cycles

- Get back to innovating

- Shorten time-to-market

- Get relief for internal, overtasked design teams

- Fill an immediate need for expert product design engineers

- Define manufacturing requirements earlier in your development process

- Improve your design for manufacturing success rate

- Minimize New Product Introduction CM hand-off risks

Simplexity can help!

We delight in clearing our clients' product development hurdles and being a part of getting your products to manufacturing more cost-effectively, safely and in less time. Simplexity's expertise spans the entire product development process from early exploration, requirements and planning, multi-phase prototyping to design verification and transfer. Our New Product Introduction services derisk and ease the transfer to contract manufacturing, seamlessly and efficiently.

...keep innovating

Simplifying the Complex®

Technology leaders choose Simplexity to accelerate and de-risk their product development. We are a trusted partner in product commercialization, with a depth of expertise in product architecture, mechatronics, and complete system design for cost-effective manufacturing.

- **Solid engineering expertise across engineering disciplines**
- **Concept to product – cost effectively with minimal risk**
- **Holistic systems approach**
- **Design for manufacturing knowledge**
- **Ability to simplify complex problems**
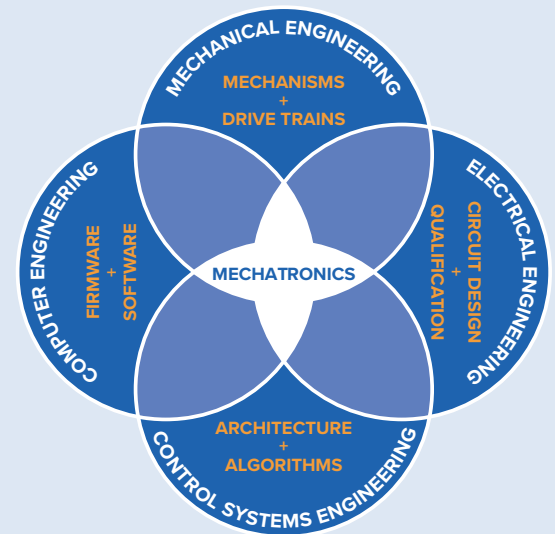
OUR SERVICES

With an average of 20 years' experience, Simplexity engineers and technicians provide in-depth expertise. From back of a napkin sketch to proof-of-concept through design and assembly, we'll drill down to identify the most challenging, highest-risk areas of the project. We determine the best path to simplifying the design to achieve results such as decreased bill of materials cost, lower part count, and improved reliability.

- Mechanical engineering
- Electrical engineering
- Firmware engineering
- Software engineering
- Systems engineering
- Project management
- Manufacturing engineering
- Quality engineering
- Prototype development
- New Product Introduction

WE ARE MECHATRONICS EXPERTS

Designing electro-mechanical products and machines, especially ones that require precise motion, is a cross-disciplinary endeavor requiring advanced skills in mechanical, electrical, computer, and controls engineering. This mix of skills has come to be known as "mechatronics." Simplexity is THE mechatronics expert in product development.

The Venn diagram to the right shows how these four different disciplines overlap to create the field of mechatronics.
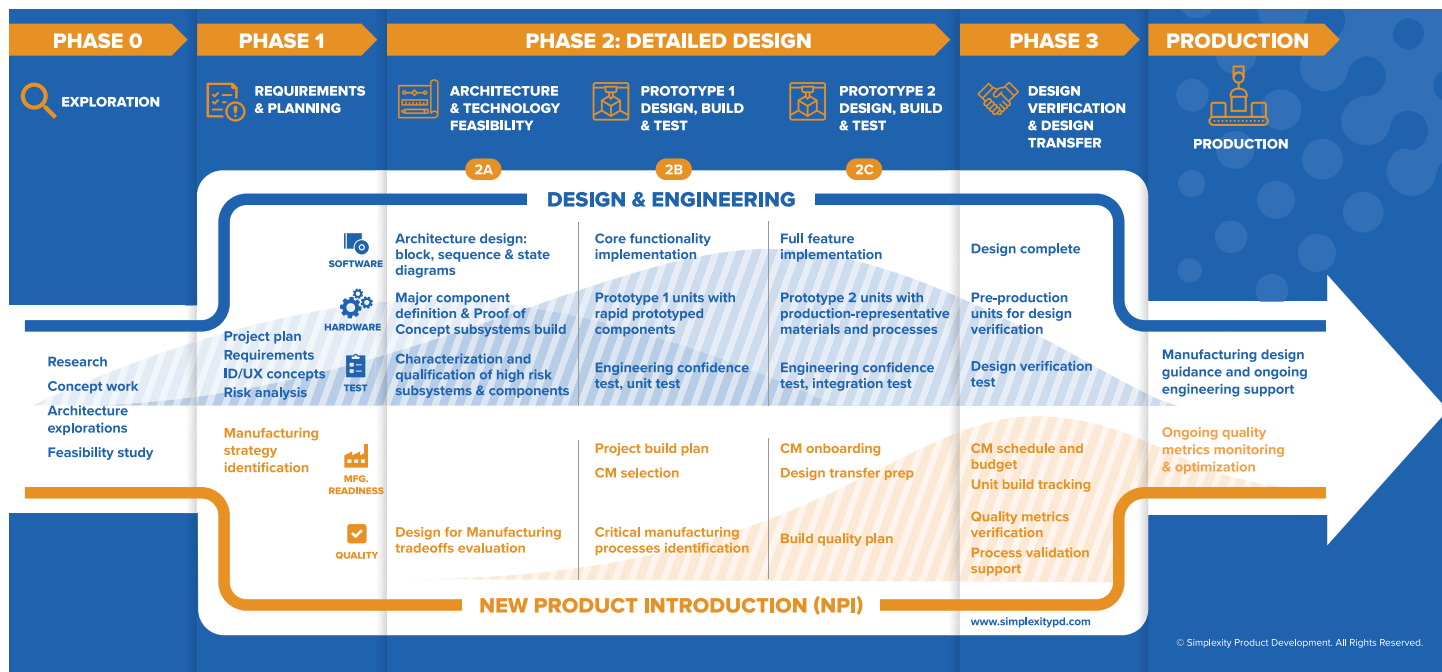
If you are designing an innovative product, but don't have the team you need or the time to hire, our full product development engineering team is here to help. Let our experienced team of mechanical, electrical, firmware, software, and systems engineers turn promising prototypes into market-ready products.

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GUIDING YOUR PRODUCT DEVELOPMENT PROCESS

Simplexity uses a phase-gate process, based on decades of experience and industry best practices, to guide its product development. Design is an iterative process, whereby unknowns and high-risk areas are best resolved through exploration, building prototypes, analysis, and testing as early as possible.

Our approach is to figure out what the highest risk aspect of a product may be and devise effective ways of assessing those risks.

HOW CAN WE HELP YOU?

- **Full service design and product development** - Full product development expertise, including concept generation, detailed design, prototyping, manufacturing, risk analysis, and quality engineering
- **Prototype optimization** - Expert level engineering experience to finalize (and prioritize) prototyping and pre-production initiatives
- **Technology feasibility guidance** - Technology advancement guidance to determine product design viability for development and manufacturing
- **New Product Introduction (NPI) services** – Minimize contract manufacturing transfer risks while managing product cost, improve product quality and reduce time to market
- **Product simplification and cost reduction** - Design for manufacturability (DFM) and cost of goods sold (COGS) planning assistance for new or existing products
- **Product quality management** - ISO 13485:2016 certified product design, engineering, prototyping, and testing for medical devices, from product inception through transfer to manufacturing
- **Bolstered, flexible bandwidth** - A full range of engineering resources and engagement models to meet project deadlines, quality objectives and ease the burden on your internal design and development resources

MARKET EXPERTISE:

MOLECULAR DIAGNOSTICS	MEDICAL DEVICES	CONNECTED CONSUMER & WEARABLES	COMMERCIAL EQUIPMENT

QUALITY MANAGEMENT

Minimizing risk is critical when selecting a design partner. Our Quality System was built for the unique needs of our customers. Every product we design has distinct requirements, and our quality processes have been built to enable close collaboration with our clients to create a product plan that is both risk-managed and cost-efficient, prioritizing the specific needs of the project.

- **Our Certified Quality Management System** is audited regularly, both internally and externally by NSF.
- **Experienced Quality Team** helps define product requirements, perform comprehensive data-based risk analyses, develop design verification strategies, and execute high-quality testing, from product inception through transfer to manufacturing.
- **Supplier Management and Performance Tracking** activities push risk management upstream to our suppliers, further helping to control and manage project risks.
- **Proven Risk Management** in compliance with ISO 14971
- **Medical products developed** in compliance with IEC 60601 and IEC 62304
- **Electronic QMS and Client Web Portal** provide direct access to project documents for download, review, and approval.
- **ISO 13485:2016 Certification**. Simplexity has been awarded Quality Management System ISO 13485:2016 certification for Product Design and Development related to medical products. This ISO certification indicates that the company's quality management system (QMS) meets or exceeds the latest international guidance for medical device product development.

NSF
NSF-ISR
Registered to ISO 13485

Celebrating 15 Years
of Product Development Excellence

15 YEARS ANNIVERSARY

2005	Simplexity founded in San Diego by ex-HP engineers
2006	Added Portland area office
2012	Expanded expertise to biotech market
2016	Added Bay Area office
2017	Added Seattle office
2019	Awarded ISO 13485:2016 Certification
NOW	We have 70+ employees and have been awarded 200+ patents

Simplexity's engineering work contributed to our clients' winning the following awards.

2019 INTERNATIONAL IDEA AWARDS FINALIST
GOODWELL.CO

reddot award 2016
best of the best

REDDOT AWARD WINNER 2016
NAUTILUS

CES INNOVATION AWARDS 2019 HONOREE

2019 CES INNOVATION AWARD WINNER
OSSIA COTA

We're also a great place to work, allowing us to recruit and retain the industries finest engineering talent:.

BEST PLACES TO WORK 2019 WINNER

SAN DIEGO BUSINESS JOURNAL FASTEST GROWING PRIVATE COMPANIES 100

Inc. 5000 #3244 2017

Inc. BEST WORKPLACES 2017

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PRODUCT DEVELOPMENT

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Simplexity is proud to be a West Coast company with four offices to provide localized support for our clients.

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