



### World-Class Engineers Solving the Most Challenging Design and Analysis Problems

Re:Build Answer Engineering is an aviation and aerospace engineering firm. We provide design, development, engineering, analysis, testing and certification services for the aerospace, urban air mobility, and space industries. Our world-class team of engineers and designers partner with the most innovative brands in all disciplines of aerospace to solve complex design and analysis problems, and to create products and systems optimized for manufacturing. In addition to engineering and design services, we collaborate within Re:Build to support our customers throughout the product life cycle, including component and systems manufacturing and factorywide automation solutions.

#### **INDUSTRIES SERVED:**

Aerospace & DefenseMobility

#### LOCATIONS:

 24 Inverness Place East Suite 200
 Englewood, CO 80112

#### CONTACT:

info@rebuildmanufacturing.com



BUILD

MANUFACTURING

- Aircraft Development
- Computer-Aided Design using Catia, Creo, NX, and SolidWorks
- Initial Structural Sizing and Layouts
- Structural Detail Design and Analysis
- Finite Element Analysis

Composite Materials Design
 and Manufacturing

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- Mechanical Systems Design
- Component Level Testing
- Program Management
- FAA 14 CFR Part 23, 25, 27, 29, and 400 Certification

#### CERTIFICATIONS:

- 514330 Engineering Design
- CAGE Code: 7NE00
- DUNS: 079120109
- Primary NAICS:

#### **Key Differentiators:**

Re:Build Answer Engineering has extensive experience with new concept-aircraft development on both manned and unmanned aircraft and spacecraft platforms. We work in the major fields of aircraft-engineering disciplines, including structures, mechanical systems, environmental control systems, aerodynamics, aircraft modifications, repairs, and serviceability. Our specialties include airframe structural design and analysis, composite materials and processing, configuration development, systems installations, and compliance or requirements development. Our engineers integrate seamlessly into a customer's engineering team, immersing themselves in the project and ensuring success and customer satisfaction.

#### **Highlighted Customers:**

- AirbusBoom
- Cirrus
- Boom Supersonic
- Electra
- Elroy Air
- Icon Aircraft
- United Rotorcraft
- Virgin Galactic
- Xwing





### Embedded Systems and Product Design Services

Re:Build AppliedLogix provides product OEMs with leading-edge embedded systems design services and commercialization expertise. Our senior team of electronics, software, and mechanical engineers are fluent in many industries, application domains, and technologies, including those for fuel-cell-control and battery-management systems, precision agriculture, medical devices, automotive and transportation components, and imaging systems with machine vision and AI processing integration.

#### INDUSTRIES SERVED:

- Aerospace & Defense
- Cleantech
- Health
- Industrial Equipment
- Lifestyle
- Mobility

#### LOCATIONS:

 3495 Winton Place, Building C Suite 2 Rochester, NY 14623

#### CONTACT:

info@rebuildmanufacturing.com 585.678.1027

- Capture and refine product concepts and requirements
- Develop novel, robust architecture specifications product platforms
- Perform leading-edge, custom electronics, software, and mechanical design
- Provide quick turnaround on prototypes for rapid concept ideation
- Facilitate production ramp-up with custom functional test systems, and provide expert guidance for agency approvals
- Deliver production-ready systems optimized for volume manufacturing

#### **Key Differentiators:**

Our team of more than fifty senior engineers has a remarkable depth and breadth of technical expertise and a commitment to integrity, teamwork, and value.

The Re:Build AppliedLogix team is structured to tackle the multidisciplinary aspects of digital product development. The range includes custom analog and digital embedded

#### Skills and Technologies:

- Embedded Controllers
- Digital Signal Processing
- Image Processing
- Control Algorithms (PID, Motor, Motion)
- Sensor Integration

- Data Acquisition
- Operating Systems (Embedded Linux, FreeRTOS, MQX / QNX)

AppliedLogix

- C/C++/C#
- FPGA Development

electronics and fully integrated subsystems, embedded software on bare metal, RTOS or Linux (as appropriate for the application), full-stack application development (Linux & Windows), packaging for embedded systems, mechanical systems, tooling design and manufacturing process development, cost-effective, rapid prototyping, and more.

- High-Speed Digital Circuit Board Design
- DDR3 / DDR4 Memory Subsystems
- Precision Analog Design
- High-Efficiency Power Conversion
- Packaging / Enclosure Design
- Thermal Management and Simulation







## Precision Metallic Components, Advanced Composite Structures, and Integrated Assemblies for Performance-Critical Applications

Re:Build CDI is an award-winning provider of machined and fabricated structural components for the aerospace, defense, and high performance industrial markets. We minimize our customers' costs and supply chain risk by providing a wide range of process capabilities for the design, prototyping and production of high-tolerance metallic and composite structures and hardware assembly and kitting.

#### **INDUSTRIES SERVED:**

- Aerospace & Defense
- Cleantech
- Health
- Industrial Equipment
- Mobility

#### LOCATIONS:

- 980 Jaycox Road Avon, OH 44011
- 35340 Avon Commerce Parkway Avon, OH 44011
- 33597 Pin Oak Parkway Avon Lake, OH 44012

#### CONTACT:

info@rebuildmanufacturing.com 888.375.1621





- Hydroforming
- Precision Metal Fabricating
- Waterjet and Laser Cutting
- 3-, 4-, and 5-Axis CNC Machining
- CNC Turning
- Titanium Hot Forming

- Thermoplastic Composite
   Compression Molding
- Thermoplastic Composite
   Stamp Forming
- Structural Assemblies
- Sourcing and Kitting

#### CERTIFICATIONS:

- AS9100D
- ISO9001:2015
- ITAR

#### **Key Differentiators:**

Re:Build CDI is a diversified, highly capable fabricator and supplier of mission-critical metallic and composite structures with nearly 40 years of experience serving high-performance aerospace, defense, and industrial markets. We provide unmatched value to customers through rapid engagement, DFM feedback on component design, and supply chain and sourcing services. We employ intensive continuous-improvement methodologies, proprietary software, and a wide array of processing methods to optimize component and system performance at the lowest total cost for our customers.

#### **Highlighted Customers:**

- Airbus
- Bendix
- Bell
- Boeing
- NavistarSikorsky
- Spartronics







## Composite Components and Assemblies for High-Performance, Mission-Critical Applications

Re:Build Composite Resources develops, prototypes, and manufactures highperformance, advanced thermoset and thermoplastic composite structures and integrated assemblies for customers in the aerospace, defense, and high-specification industrial markets. We have a diverse range of composite manufacturing processes that enable us to support our customers throughout the entire product life cycle, from early-stage low-rate prototyping and testing to full-rate production.

#### INDUSTRIES SERVED:

- Aerospace & Defense
- Industrial
- Lifestyle
- Mobility

#### LOCATIONS:

485 Lakeshore Parkway Rock Hill, SC 29730

#### CONTACT:

info@rebuildmanufacturing.com 803.366.9700







- Design, Engineering, and Analysis
- Composite Material, Adhesive, and Resin Selection and Qualification
- Tooling Design and Production
- Filament Winding
- Compression Molding
- Lamination
- Roll Wrapping

- Autoclave and Out-of-Autoclave (OOA) Processing
- Honeycomb and Synthetic Cores
- High Temperature Composite
   Structures
- Structural Bonding and Assembly
- Metallic and Composite Machining
- Program Management

#### **Key Differentiators:**

Re:Build Composite Resources' comprehensive, diverse portfolio of composite processing methods provides our customers with an extensive range of component and material options. We are also uniquely positioned to develop low-rate prototypes for testing and qualification and follow through to full-rate production. Customers benefit from Re:Build Manufacturing's engineering expertise and complete designbuild capabilities.

#### **Highlighted Customers:**

- 3M
- Kratos
- Chemring
   Raytheon

#### CERTIFICATIONS:

- AS9100D
- ISO9001:2015
- ITAR







### Industrial Automation, Engineering, and Custom Process Development

Re:Build DAPR Engineering provides world-class OEM product and process development, engineering, and industrial automation to customers in nearly any industry. Our team is comprised of engineers with experience across a wide range of technical disciplines who are capable of solving complex engineering challenges for performance-critical applications. Through intensive engagement with our customers, we work as partners to provide a variety of engineering solutions affordably and on schedule from our 35,000 square-foot facility in Nashua, New Hampshire. We have successfully delivered on industrial automation projects, FEA/CFD analysis, OEM product development, DMF/DFA analysis, and techno-economic white papers. Throughout a project we support our clients with supply chain qualification and management and rapid design iteration.

#### **INDUSTRIES SERVED:**

- Cleantech
- Health
- Industrial Equipment

#### LOCATIONS:

85 Northwest Boulevard Nashua, NH 03063

#### CONTACT:

info@rebuildmanufacturing.com 603.769.3170

ANUFACTURING

- OEM Product Development
- Industrial Process Development
- CAD Modeling
- Custom Automation

- Engineering Analysis
- FEA, CFD, and Thermal Analysis
- Vibration, Seismic, and Structural Simulation
- Sourcing and Supply Chain Management
- Total Program Management

but must also include ongoing comprehensive supply

chain assessment and robust risk identification and

mitigation processes. This holistic approach allows

us to design, engineer, plan, build, and test the best solution at the lowest total cost, with the least possible

#### **Key Differentiators:**

At Re:Build DAPR, we do things differently. We offer customers a unique combination of engineering, creative design and process, and pragmatic program management. Our rigorous project management plays a critical role in meeting project requirements, including delivering on budget and on time. We know that successful projects require early deployment of the best engineering and design services,

#### **Highlighted Customers:**

• 6K

Antora Energy

- Desktop Metal
- Form Energy
- Fujifilm Dimatix

risk, on behalf of our customers.

- Ginkgo Bioworks
- Wakefield Vette







### Accelerate Warehouse Automation and Bio-technology Product Commercialization

Re:Build Fikst's team of mechanical, software, and electrical engineers has vast experience in biomedical and biotech instrument and consumable design and specializes in quick, practical product development that accelerates product commercialization. Our expertise in system development, mechanical engineering, embedded systems, and design for manufacturing enables us to provide full-scale engineering development, rapid ideation and prototyping, and problem-solving to address your technical challenges. We also support your company's short-term needs, an especially valuable service when you are facing particularly complicated problems. We are experts in industrial automation and can help you establish efficient, cost-effective, productive warehouse management 2.0 operations.

#### INDUSTRIES SERVED:

- Cleantech
- Health
- Lifestyle
- Mobility

#### LOCATIONS:

 187 Ballardvale Street Suite B210 Wilmington, MA 01887

#### CONTACT:

info@rebuildmanufacturing.com 781.491.0845

**BUILD** 

- Researching and Understanding Complex Technical Challenges
- Brainstorming Solutions to Technical Challenges
- Identifying High-Risk Items
- Developing Concepts that Meet Your Requirements
- Building SolidWorks CAD Models Master Models, Complex Surfacing, Large Assemblies, PDM

- Performing Multiphysics Simulation Fluidic, Structural, Thermal, Electrical
- Rapid On-Site Prototyping for Technology Development
- Sophisticated Prototype Testing to De-risk the Design
- Design for Manufacturing Injection Molding, Sheet Metal, Extrusion, Casting, and More
- Design for Assembly and Serviceability
- Transitioning to Manufacturing

   Drawings, BOMs, Work
   Instructions
- Performing First Article Inspection
- Assembling Pilot Builds of Consumables and Instruments
- Handing Off to Contract Manufacturer
   Pilot Builds and Training of CM

#### **Key Differentiators:**

Re:Build Fikst combines engineering fundamentals, analysis, sophisticated instrumentation and rapid prototyping to solve complicated technical challenges. We have extensive in-house, rapid prototyping capabilities, including CNC machining, soldering, 3D printing, laser cutting, and silicone casting. We routinely prototype special production assembly methods, including ultrasonic welding, diffusion bonding, heat sealing, UV gluing, and laser welding, to derisk manufacturability early in the design process. We also offer analytical expertise in fluid dynamics, including particle tracing that employs COMSOL multiphysics simulation. We design for high-volume manufacturing utilizing prototyping and analysis, and then facilitate pilot runs of consumable and device prototypes in-house, easing the transition to full production.

#### **Highlighted Customers:**

- Akouos
- Aquyre Biosciences
- Evizia
- FlaskWorks

- Flexomics
- The Jackson Laboratory
- Lyndra Therapeutics
- Nanopath

- NextGen Jane
- Sage Science
- Sight Diagnostics
- Vapotherm







### Accelerate Technology-to-Product Commercialization

Re:Build Optimation was founded with a passion for manufacturing and a desire to provide industrial clients with a single source for projects ranging from simple upgrades and maintenance to custom-engineered, turnkey design and fabrication solutions. Re:Build Optimation delivers world-class technology outcomes across a wide variety of industries, including energy, chemical, food, glass, and more. Our two hundred team members upgrade control systems, implement new production capabilities from skids to full lines and facilities, design and build custom machines, and fabricate virtually anything our customers require. Re:Build Optimation aims to develop lasting relationships with our clients by partnering with them to promote and advance manufacturing in the United States.

#### **INDUSTRIES SERVED:**

- Cleantech
- Health
- Industrial Equipment
- Mobility

#### LOCATIONS:

- 50 High Tech Drive Rush, NY 14543
- 600 Lexington Avenue Suite 102
   Rochester, NY 14606

#### CONTACT:

info@rebuildmanufacturing.com 585.321.2300





- Automation and Controls Engineering and Design
- Chemical Engineering
- Mechanical Engineering and Design
- Safety Engineering
- Construction and Project Management
- Electrical and Instrumentation Engineering and Design
- Machine Design and Build

- Process Development and Optimization
- Control Panel Design and Fabrication
- Skilled Trades: Welding, Pipefitting, Mechanical, Electrical, Maintenance and Spare Parts, and Sheet Metal Fabrication
- Systems Integration
- Web Handling and Conveyance

#### CERTIFICATIONS:

- ISO90012015
- CSIA Certified & Founding Member
- ASME Registered U&R Stamp
- Rockwell Automation Silver Systems Integrator
- National Instrument Silver Alliance
- ITAR Registered
- UL508A Listed Panel Shop

#### **Key Differentiators:**

Re:Build Optimation's specialties include roll-to-roll manufacturing and the design and build of skids using a turnkey, modular-process. Our skid engineering and manufacturing services for process and discrete applications produce robust and innovative solutions at scales ranging from lab to pilot and all the way up to industrial-grade production. Our experts combine years of practical know-how, an understanding of continuous-process roll-to-roll science, consulting and training services, and piloting of diverse materials. The Re:Build Optimation team is backed by world-class technology and a knowledge base developed over more than a century of process experience.

#### **Highlighted Customers:**

- Carestream Health
- Davis
   Standard
- Eastman Kodak
- HalliburtonMedtronic

Once Again

O-I Glass

Nut Butters

- Revere Copper Products
- Ultralife Batteries



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#### MEMBER COMPANY OVERVIEW



## Advanced Thermoplastic Composites for All Markets

Re:Build Oribi Composites designs and produces advanced thermoplastic composites with high-speed, automated manufacturing technologies, enabling widespread adoption of composite materials for high-volume production applications. Originally limited to niche applications in the aerospace industry, thermoplastic composites offer significant potential to reduce weight, improve performance, and reduce cost. Historically, this class of materials lacked an affordable conversion technology to turn them into finished parts. Re:Build Oribi delivers on the potential of thermoplastic composites and offers customers the ability to incorporate highly engineered composites into nearly any application.

#### **INDUSTRIES SERVED:**

- Aerospace & Defense
- Cleantech
- Health
- Lifestyle
- Mobility

#### LOCATIONS:

\$5850 E 56th Avenue Commerce City, CO 80022

#### CONTACT:

info@rebuildmanufacturing.com 303.376.9430

**BUILD** MANUFACTURING

- Structural Component Design and Engineering
- Material Selection and Qualification
- Composite Material Forming and Draping Analysis
- Tooling Design, Engineering, and Production
- Thermoplastic Composite
   Tape Slitting

- Tailored Blank Design, Engineering, and Production
- High-Rate Thermoplastic Composite Thermoforming

- Thermoplastic Composite
   Compression Molding
- Thermoplastic Composite Recycling
- Composite Machining and Finishing

#### **CERTIFICATIONS:**

- Berry Compliant
- ISO9001:2015

#### **Key Differentiators:**

Re:Build Oribi has a unique capability to convert reinforced thermoplastic composites affordably for high-volume production. We combine practical, high-speed automation with knowledge of materials science to unlock the full potential of continuous fiber-reinforced composites. We utilize advanced simulation and software tools to minimize the cost and time required to develop advanced composite components. We leverage diverse engineering capabilities with experience in a wide range of industries, from aerospace and defense to sporting goods and consumer products.

#### **Highlighted Customers:**

- GE
- CCM
- Gentex
- Safran



# RE: BUILD **tekna**.

#### MEMBER COMPANY OVERVIEW



### Empowering Innovation, Delivering Results through Research, Design, and Manufacturing

With over 35 years of product design, development, and manufacturing experience, Re:Build Tekna transforms innovative ideas into tangible opportunities. Specializing in medical devices and industrial and consumer products, we continuously evolve and expand our capabilities to meet the demands of evolving industries and a diverse customer base. As a strategic partner, Re:Build Tekna empowers businesses to grow through the design and manufacturing of products, services, and experiences.

#### **INDUSTRIES SERVED:**

- Cleantech
- Health
- Industrial Equipment
- Lifestyle
- Mobility

#### LOCATIONS:

- 3400 Tech Circle Kalamazoo, MI 49008
- 3665 Midlink Drive
   Kalamazoo, MI 49048

#### CONTACT:

info@rebuildmanufacturing.com 269.978.3500

# tekna.

#### **Core Competencies:**

**BUILD** MANUFACTURING

- Research and Strategy
- Industrial Design and User Experience

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- Branding and Visualization
- Engineering and Development
- Prototype to Full Production
- Contract Manufacturing

#### **Key Differentiators:**

Re:Build Tekna upholds the company's manufacturing mission by providing end-to-end product innovation and systems production. Our decades of experience designing for manufacturing combined with a robust quality management system and a strategically expanded approved-supplier list has enabled the successful launch of over 500 products. The human-centered and business-minded approach we take to product development keeps our focus on stakeholder needs and the realities of business and manufacturing. Customized R&D, bespoke project teams, and scalable program management enable successful product launches across numerous sectors.

#### **Highlighted Customers:**

- Alcon
- Bissell
- Dometic
- Exro Technologies
- KitchenAid
- Newell Brands
- Proto Inc.
- Sartorius
- Stryker
- Tru-D
   SmartUVC
- Whirlpool
- Zoetis

#### CERTIFICATIONS:

- EPA and FCC
- FDA Registered, 21 CFR 820
- IEC 60601-1 and 61010 Electrical Standards
- ISO 13485 Certified
- Quality Systems
- UL, ETL and TÜV

