

Manufacturing Consulting, Product Design and Prototyping focused on your idea!

The Advanced Manufacturing Sciences Institute (AMSI) at Metropolitan State University of Denver provides affordable, expert-led manufacturing consulting, product design, prototyping services, and manufacturing solutions to help transform your product ideas into reality. AMSI's state-of-the-art laboratory capabilities support your product development from initial concept to full-scale production. We combine industry knowledge, academic expertise, and advanced technology to deliver affordable, high-quality solutions in manufacturing consulting, product design, and rapid prototyping.

Our integrated approach will save you time and money

Our expert-led manufacturing consulting services are designed to help companies and entrepreneurs transform ideas into reality, optimize production processes, and bring new products to market faster. With essential capabilities housed under one roof, AMSI offers product design, prototype development, manufacturing process optimization, CNC machining, and 3D printing, eliminating the need to work with multiple vendors. This integrated approach saves both time and money while ensuring seamless quality from start to finish.

Product design and prototyping of your idea

Prototyping is a critical step in product development. AMSI's team works closely with clients to design, build, and refine prototypes that meet functional requirements while being cost-efficient to manufacture. Our CAD design expertise (SolidWorks, Fusion 360) combined with capabilities in reverse engineering, 3D scanning, and precision measurement allows us to recreate legacy parts, improve existing designs, and solve complex engineering challenges.

Manufacturing consulting to optimize your processes

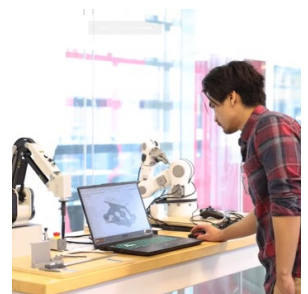
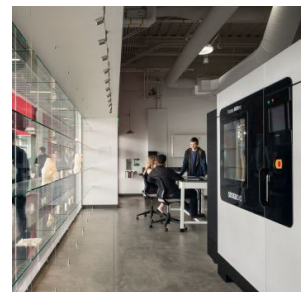
We specialize in helping businesses optimize manufacturing processes for greater output, reduced waste, and improved quality. We serve clients across industries, from startups developing their first prototypes to established manufacturers seeking process optimization or new product lines. From lean manufacturing strategies to Industry 4.0 digital transformation, we identify solutions tailored to your manufacturing goals. As America's manufacturing economy continues to evolve, AMSI stands at the forefront of digital transformation; leveraging smarter, leaner technologies and innovative processes to develop and produce next-generation products, materials, and techniques.

AMSI expertise

AMSI staff and student teams bring a unique combination of perspectives and skills to the consulting process. Our experienced industry professionals, innovative educators, and students are trained in the latest processes, tools, and techniques. Whether you are refining a single component or overhauling your entire manufacturing process, our experts can guide you through design, testing, and production with a focus on efficiency, cost-effectiveness, and innovation.

AMSI is a partner in your success

When you partner with AMSI you gain access to more than just equipment, you gain a dedicated team committed to your success. We focus on delivering solutions that improve quality, reduce costs, and shorten time-to-market. Our unique blend of consulting expertise and hands-on manufacturing capability makes us a trusted partner for entrepreneurs and companies looking to thrive in an increasingly competitive manufacturing landscape.



CHANGEMAKERS WANTED

Manufacturing Consulting Services

Consulting Services

- Industry 4.0 Digital Transformation
- Prototype Design
- Quality Inspection, Test, Engineering

Prototype Design & Build

- CAD (Solidworks, Fusion 360)
- 3D Printing, CNC Machining

Reverse Engineering

- 3D Scanning
- Precision Measurement
- CAD Modeling

Quality Inspection, Test, Engineering

- Gage Design
- GD&T Interpretation
- Lean Six Sigma

Lab Capabilities

Additive Manufacturing

- Polymer: Stratasys Fortus 900 Build Volume: 36"x24"x36"
- Metal: XM200C Metal Powder-Bed Fusion 3D Printer

Subtractive Manufacturing

- 2 Axis CNC Lathe: Hardinge SV-150 Machining Volume 11"x 16"
- Haas VF3-YT 3-Axis Vertical CNC
- Haas Mini Mill (x2) 3-Axis Vertical CNC

Cutting, Engraving

- Laser: Boss HP2436 - Machine Travel: 36"x 24"
- Laser: Epilog Fusion M2 - Machine Travel: 32"x 20"

Metal Forming, Cutting

- Shear, Brake, Bender, Roller

Welding

- Mig, Tig
- Pre and Post Processing
- Ultrasonic Cleaner (3D prints), Finisher, Powder Coat, Paint Booth

Measurement and Test

- Optical Comparator
- Coordinate Measuring Machine
- Tension / Compression / Vibration
- Uniteq Corp. PS-2305 Power Supplies
- Rigol DS1104Z Oscilloscopes
- Rigol DG1022 Function Generator
- Rigol DM3058E Digital Multi-Meter

Assembly

- Sub-Assemble parts and components for your production line
- Final Product Assembly

Woodworking

- Table Saws, Routers, Sanders, Etc.

Contact Us

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