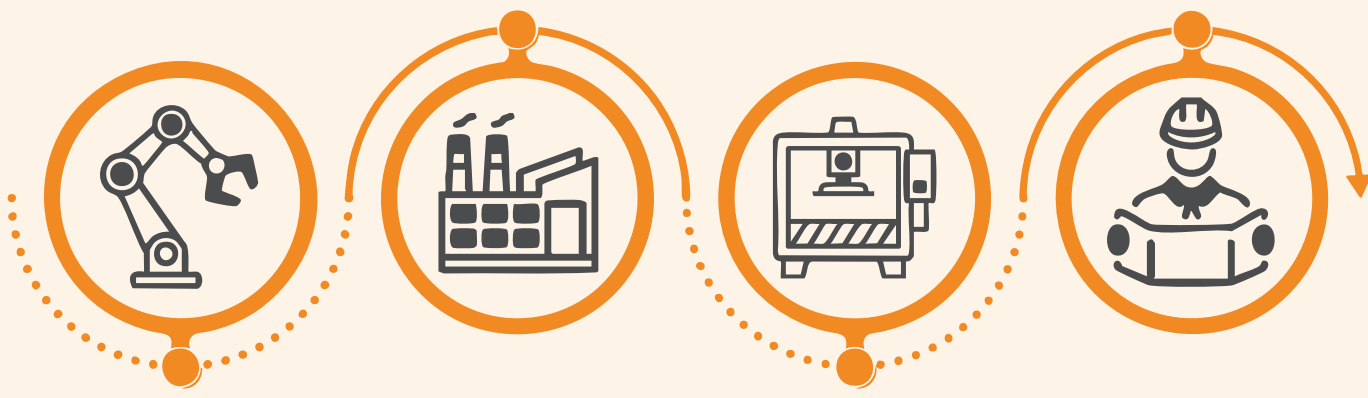


DESIGN, BUILD, INNOVATE: CAREERS IN MANUFACTURING & ENGINEERING

A strong future for U.S. manufacturing relies on innovation, workforce investment, and strategic planning to ensure domestic and international success.



What is Advanced Manufacturing & Engineering?

Advanced manufacturing uses intelligent machines and connected technologies, such as artificial intelligence, the internet of things, and augmented reality, to help teams rapidly adjust production to meet shifting supply needs.¹

Career Pathways²

Mechanical Engineer

Primary duties: Designing and supervising the manufacture of machines, products, and components for a variety of uses or industries, and analyzing, testing, and interpreting schematic drawings to best execute production.

Average Salary:
\$89,424

Robotics Engineer

Primary duties: Designing, building, programming, and testing complex electromechanical robots and automation devices used in manufacturing, and creating new designs or updating existing ones for improved efficiency.

Average Salary:
\$107,080

Mechatronics Engineering Technician

Primary duties: Applying mechanical, electrical, and computer engineering theories and principles to modify, develop, and test machines and equipment used in various parts of the manufacturing process.

Average Salary:
\$72,901

Welder

Primary duties: Using high-temperature torches to fuse pieces of metal together.

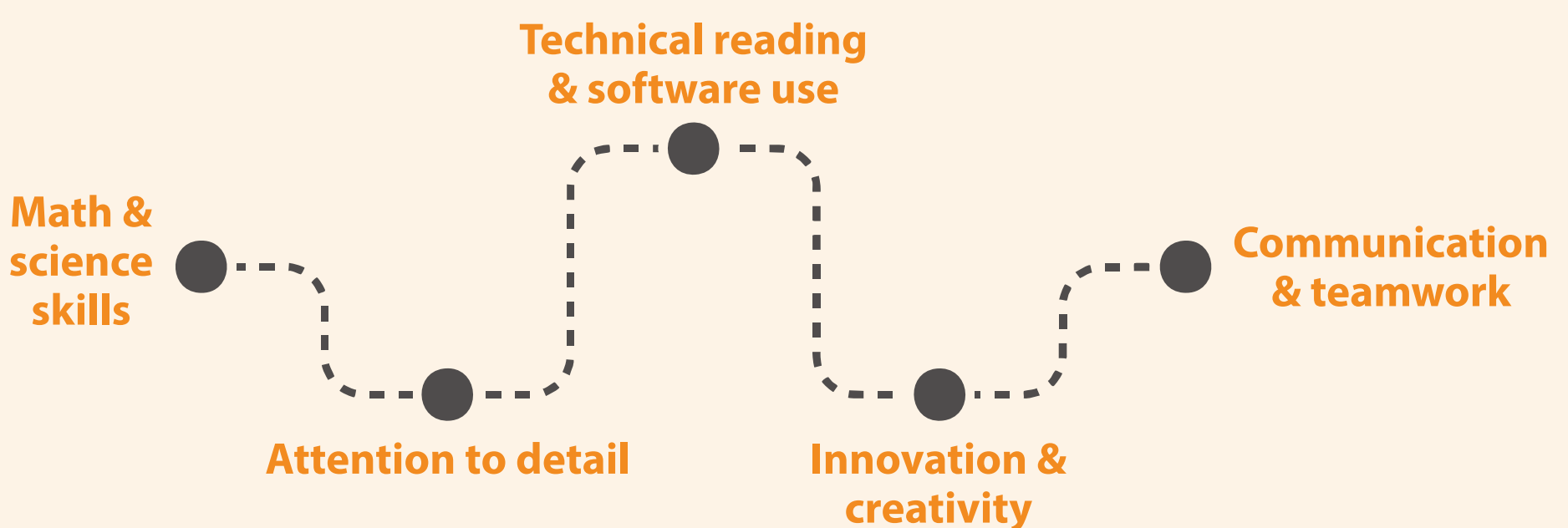
Average Salary:
\$57,766

Computer-Aided Design (CAD) Technician

Primary duties: Studying industrial technology and technology management, and using CAD software to design and manufacture products and organize and perform production runs.

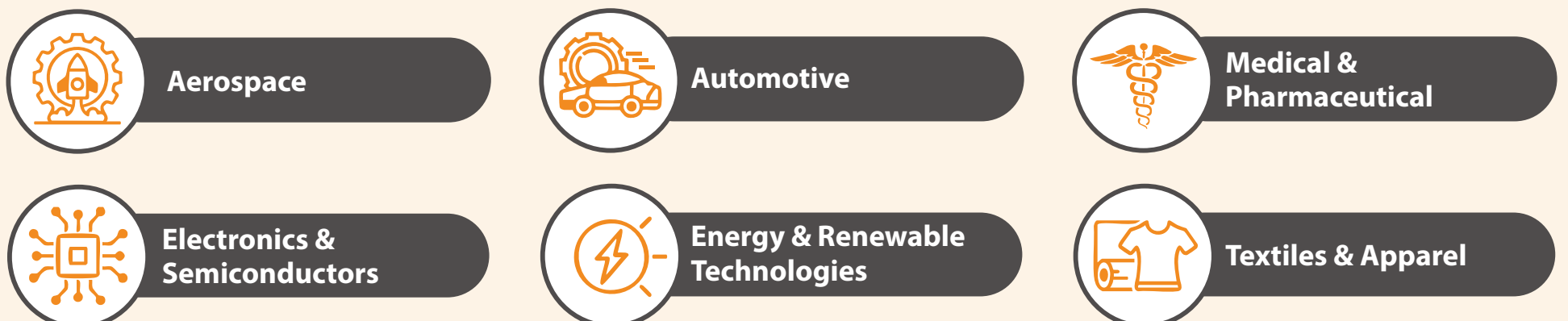
Average Salary:
\$56,189

Skills You'll Need

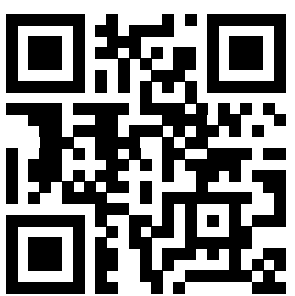


Industries Using Advanced Manufacturing & Engineering³

Advanced manufacturing powers everything from phones to planes to medical devices. It's about how products are made—using smart, efficient technologies—not just what's being made. You can join this fast-changing field in almost any industry:



Advanced manufacturing is reshaping how things are made—giving companies the tools to keep up and stand out in a high-tech world.



Download our free guide!

"Tools of the Trade: Hands-On Learning for 3 Trade Skills Careers"

www.realityworks.com/trade-skills-implementation-page

1. International Trade Administration. (n.d.). Advanced manufacturing: What it is and why it's worth investing. Trade.gov. Retrieved June 16, 2025, from <https://www.trade.gov/feature-article/advanced-manufacturing-what-it-and-why-its-worth-investing>
2. Indeed Editorial Team. (2025, June 6). 11 jobs in advanced manufacturing. Indeed.com. Retrieved June 16, 2025, from <https://www.indeed.com/career-advice/finding-a-job/advanced-manufacturing-jobs>
3. TWI. (n.d.). What is advanced manufacturing? TWI Global. Retrieved June 16, 2025, from <https://www.twi-global.com/technical-knowledge/faqs/faq-what-is-advanced-manufacturing>