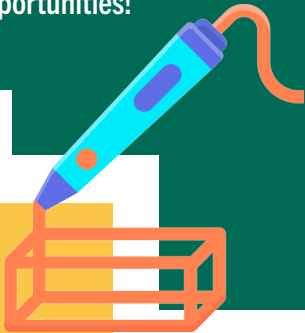


What does a career in digital design, engineering, or manufacturing look like?

- You get to **help companies re-imagine** the products they make and revolutionize how they make them—faster, better and more sustainably
- Jobs include careers in digital design, additive manufacturing, rapid prototyping, manufacturing technology, engineering technology, mechanical engineering, industrial technology, composite manufacturing, precision manufacturing, and welding
- **These jobs are shaping the future** of the automotive, aerospace and defense, consumer goods and services, energy, industrial, and life sciences industries

Read on to learn more about specific jobs in this field and how to continue exploring these career opportunities!



Spotlight on Local Resource

Sears think[box]

The Sears think[box] is the largest open-access innovation center and makerspace in the United States, located right here in Cleveland at Case Western Reserve University. The think[box] includes seven floors of innovation potential, each with a different purpose, including community, collaboration, prototyping, fabrication, project space, entrepreneurship, and an incubator. The think[box] has equipment for wood shopping, 3D printing, laser cutting, electronics, metal shopping, CNC machining, textiles, welding, and more. The mission of the Sears think[box] is to support individuals in learning, refining and utilizing skills in the fields of entrepreneurship, innovation and making.



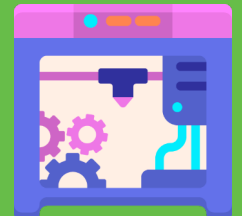
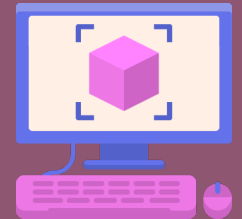
Sears think[box]

Case Western Reserve University
Richey Mixon Building
11201 Cedar Ave.
Cleveland, OH 44106

case.edu/thinkbox/

Let's Explore

Digital Design, Engineering & Manufacturing



Types of Jobs / Salary Potential

- Digital Designer, \$66,246 - \$84,042
- Manufacturing Technician I, \$36,100 - \$46,600
- Manufacturing Technician II, \$40,400 - \$54,300
- Welder I, \$41,016 - \$52,797
- CNC Laser Machine Operator I, \$43,900 - \$56,800
- Fabricator, \$35,922 - \$49,087
- Machinist I, \$41,442 - \$53,096
- Composite Bonding Technician I, \$38,053 - \$49,647
- Mechanical Engineer VI, \$184,222 - \$228,618
- Manufacturing Engineering Tech, \$69,782 - \$83,161
- Graphic Designer, \$61,512 - \$76,725

*The salary ranges listed are typical for Cleveland area jobs and can vary widely depending on many factors.

Examples of Local Employers

All Crane Service
ARC Drilling
A&S Machine
ASG
Champion Personnel System
Cleveland Clinic
Cleveland Institute of Art
DeLong Staffing Specialists
Howmet Aerospace
Impact Employment Solutions
Middough Inc.
Mid-West Forge Corp.
MT & Associates
On-Board Companies
Roe Dental Laboratory
The Cleveland Vibrator Co.
Thermo Fischer Scientific

Places to look for open jobs:

- [Indeed](#)
- [LinkedIn](#)
- [ZipRecruiter](#)

Opportunities for Deeper Exploration

Summer Programs at Tri-C

BizWhiz Academy

Explore Tri-C's Manufacturing Center of Excellence, which includes a state-of-the-art, fully equipped fab lab. Learn how to brainstorm ideas and make them a reality during lunch-and-learn sessions with professionals who have created their own inventions. Learn about manufacturing from product design and development to product manufacture in this two-week camp designed for students ages 11-14.

Creation Station

Interested in learning what you can do in a fab lab? Explore Tri-C's Ideation Station — a fully-equipped fab lab with 3D printers, laser engravers, CNC router and more. In this one-week summer camp, create and design your own projects, learning how to use 2D and 3D modeling software to design, laser and print your creations. For students ages 11-15.

Other Opportunities at Tri-C

Youth Technology Academy

The Youth Technology Academy (YTA) is where you can earn college credit in a STEM-based career path while still in high school. YTA is a one-of-a-kind program designed to train high school students for the technical workforce.

Youth Pre-Apprenticeship

The Manufacturing Technology Center's youth pre-apprenticeship programs are designed to prepare and provide high school students the work-readiness skills, confidence and connections they need to enter and succeed in the workforce. These stackable certificates pathway into a state-registered apprenticeship and/or Applied Associates degree.

Preparing for the Career

Local Training, Certificate & Degree Programs

Cleveland State University

- Online Welding Certificate, Includes Optional Volunteer Externship Opportunity
- Bachelor's degree, Mechanical Engineering
- Bachelor's degree, Electronics Engineering Technology
- Bachelor's degree, Mechanical Engineering Technology
- Graphic Design Certificate
- Art-Design Track (Bachelor's Degree in Art with Design focus)

Cuyahoga Community College

- 3D Digital Design and Additive Manufacturing Technology, Certificate of Proficiency
- Digital Design and Product Innovation, Short-term Certificate
- Applied Industrial Technology Manufacturing, Associate of Applied Science
- Applied Industrial Technology Sheet Metal Worker, 5-year Apprenticeship Program, Associate of Applied Science degree
- CNC Machining and Composites Manufacturing, Short-term Certificate
- Welding Programs

Ohio Technical College

- Programs in Welding and Fabrication

Cleveland Industrial Training

- CNC Programming & Operation/Machine Tools Program
- CNC Swiss Machine Operations/Set-up Program

Lincoln Electric Weld School

- Classes and workshops in welding

Download brochure
with links to
resources

