

A woman with long brown hair is wearing safety glasses and a head-mounted device with a white band and black padding. She is looking slightly to the right with a neutral expression. The background is a blurred industrial setting with warm lighting.

I GOT IT MADE

A career in manufacturing awaits.



CONNECTICUT
Manufacturing

MAKING STUFF. GETTING PAID.

Sound like the life you want?
You're in the right place.



As the Chief Manufacturing Officer for the State of Connecticut, the best part of my job is introducing people to everything that a career in Connecticut manufacturing can offer. With manufacturing, you don't need a stacked resume, prior experience or a college degree. You need curiosity. A desire to learn. A willingness to make mistakes and keep going.

And you aren't just applying for a job. You're kickstarting a career that can help you weave a full life – whether that means a new place to live, a new car or saving for the future.

Let's get to work.

Paul Lavoie
Chief Manufacturing Officer
State of Connecticut



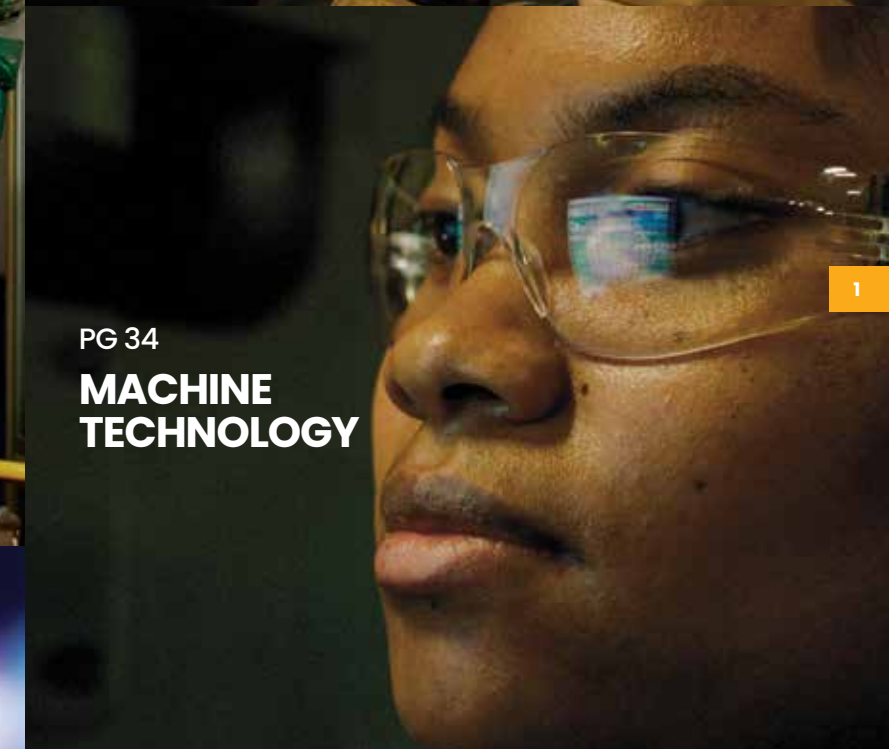
PG 8
**INTRODUCTORY
POSITIONS**



PG 18
**WELDING
& FABRICATION**



PG 26
**ROBOTICS &
MECHATRONICS**



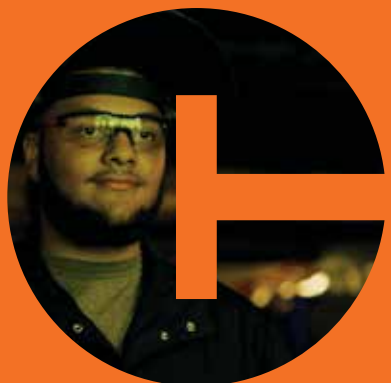
PG 34
**MACHINE
TECHNOLOGY**



PG 42
**DEGREE
POSITIONS**



PG 44
RESOURCES



A man and a woman are in a factory setting, looking at a large industrial machine. The man is on the left, wearing a blue shirt and safety glasses, and is pointing at the machine. The woman is on the right, wearing a grey shirt and safety glasses, and is also looking at the machine. The machine is a large, white, vertical piece of equipment with a control panel. The background shows other industrial equipment and a factory floor.

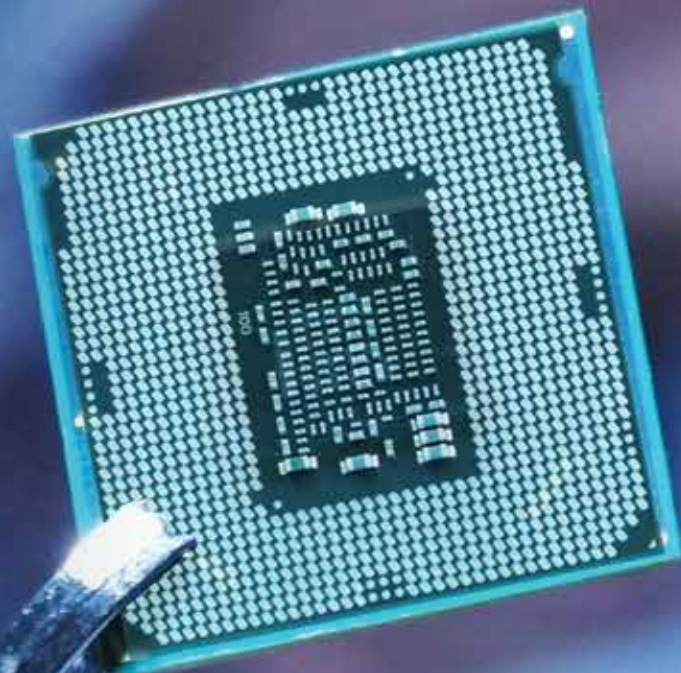
MANUFACTURING, DEFINED.

There's nothing more human than making. Whether it's building sandcastles or drawing on walls, creating is part of our DNA from the start. Manufacturing takes making to the next level.

Manufacturing is science, but it's also art. It's precision, but it's also creativity. It's where technology and humanity find the middle ground, where you'll huddle up as much as you'll fly solo.

WHAT HAPPENS IN CONNECTICUT DOESN'T STAY HERE.

This small state is a hub for makers of all kinds. We manufacture a variety of things, like movie-ready popcorn, masterfully sculpted airplanes, vital medical equipment, and ocean-wandering subs. It all happens in high-tech facilities, using disciplines from welding to robotics. **Connecticut's manufacturing companies make products and propel breakthroughs felt throughout the world.**



MANUFACTURING:

#4

employment sector in the state.

"2023 Connecticut Manufacturing Report," CBIA



#1

U.S. state in aircraft engine and engine parts manufacturing.

"CT Advanced Manufacturing Sector Snapshot 2023," AdvanceCT

4,500

manufacturing companies, big and small, across our state.



WHO RUNS THE WORLD?

When your job is to shape the world, the more perspectives the better. Connecticut is proud to advocate for equal opportunity for women in the manufacturing sector.

16%

higher salary than women in other fields.

"Manufacturing opens more doors to women," 2022, Census.gov

69%

of women in manufacturing chose the field for stability.

"Advanced Women in Manufacturing," 2023, Institute for Women's Policy Research (IWPR)

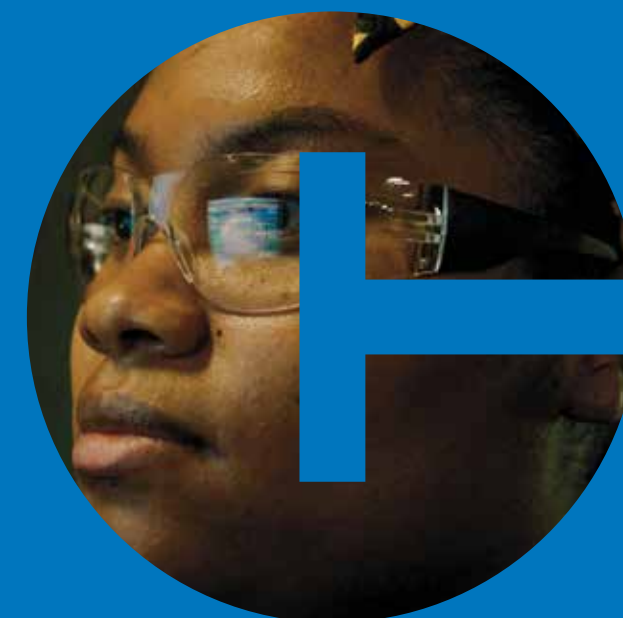
30%

manufacturing positions are held by women.

"Manufacturing opens more doors to women," 2022, Census.gov

" You are never incapable of doing something. Electrical, machining, welding — it's NOT just for the men. It's for anyone. When was the last time you did something for the first time? We all start somewhere. "

Sabrina
Welding Instructor



WATER'S GREAT.

Jump right in with introductory roles.

52%

of manufacturers in CT look for candidates with a high school diploma, GED, or no education requirement.

"2023 Connecticut Manufacturing Report," CBIA

Connecticut has many manufacturing positions that require little-to-no training or secondary education. Many companies will train you on the job or sponsor you so you can get the certification you need. These roles are a great introduction to the industry – your chance to learn about different aspects of manufacturing to see what vibes with you.

INTRODUCTORY POSITIONS

Manufacturing positions that require little-to-no training or secondary education.

WELDER

Specialize in joining metal parts together using various welding techniques.



ASSEMBLER

Work on a production line and put parts together into finished products.



FABRICATOR

Cut and shape raw materials into parts needed for production.



QUALITY ASSURANCE TECHNICIAN

Install, maintain and repair automated machinery and computer-controlled mechanical systems in industrial settings.



MACHINIST

Set up and operate a variety of machine tools to produce precision parts and instruments out of metal.



SHIPPING, RECEIVING, & INVENTORY CLERK

Manage the flow of products, materials and supplies into and out of a warehouse.



OFFICE POSITIONS

Support the manufacturing process through administrative tasks, scheduling, accounting, and human resources.



INTRODUCTORY POSITIONS *(CONT.)*

Manufacturing positions that require little-to-no training or secondary education.

ROBOT MAINTENANCE TECHNICIAN

Design, test, install, maintain, troubleshoot, and fix robots and automation control systems.



MECHATRONICS TECHNICIAN

Install, maintain and repair automated machinery and computer-controlled mechanical systems in industrial settings.



CNC SET-UP OPERATOR

Load the digital machining program, set up tools and equipment, test the program, and ensure everything works correctly.



MANUFACTURING PROCESS TECHNICIAN

Monitor and adjust machine parameters, testing batch quality and reporting equipment malfunctions.



CAD DESIGNER OR MECHANICAL DRAFTER

Create 2D or 3D technical drawings using computer-aided design (CAD) systems.

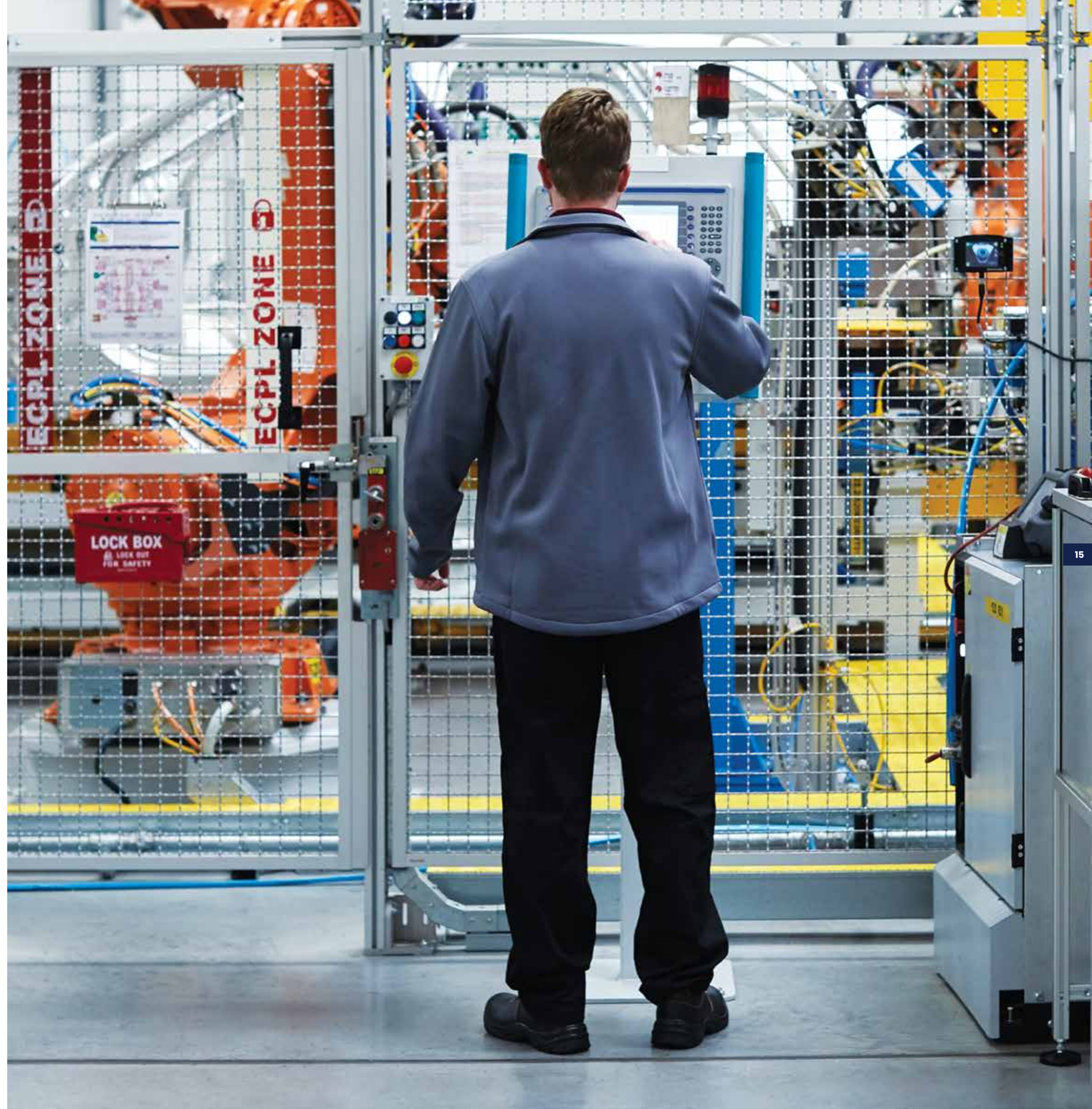


TURN TO PAGE 44 FOR JOB SEARCH TIPS AND OTHER RESOURCES



“ High school teachers first introduced me to manufacturing as a life-changing opportunity. And they were right. This career has helped me buy my family a home and put me through college. I couldn’t be more grateful. ”

Victor
Coating Processor & Maintenance Technician



LET'S DIVE DEEPER.

About 42% of Connecticut manufacturing companies look for candidates with postsecondary education – but this doesn't have to mean a traditional college degree. **You can learn necessary skills and techniques through a shorter, more specialized program.** Getting a certification can lead to higher salaries, better job stability and increased demand for your role. Many employers offer tuition reimbursement programs that can cover the cost of certificate programs and educational degrees.

Let's talk about some of the fields where a certification would give you an edge.

I'M A

MAKER



WELDING & FABRICATION

As a welder or fabricator, you shape the world around you. You'll melt and fuse metal into one solid piece, creating parts that go on to become something real, like a robot, a car, even a bridge. Every project is like a puzzle that you solve with fire and metal.

Pretty fire, huh?

IS THIS RIGHT FOR ME?

People with close attention to detail, a decent amount of physical strength and a knack for hands-on work would thrive in this career.

ENTRY-LEVEL WELDER:

41k

In Connecticut, entry-level welders start at about \$41,100. The mean salary for this role is \$59,761.

TOP INDUSTRIES

In Connecticut, welders are needed across various industries, including **construction, aerospace, shipbuilding, automotive, and energy.**



TURN TO PAGE 44 FOR JOB SEARCH TIPS AND OTHER RESOURCES





I GOT IT MADE

“ One thing that surprised me about working in manufacturing was that you could start your career in one place and, through hard work and accepting challenges and opportunities, end up somewhere you wouldn’t have dreamed of as a young adult. ”

Molli
Welder & Fabricator



I'M A

BUILDER

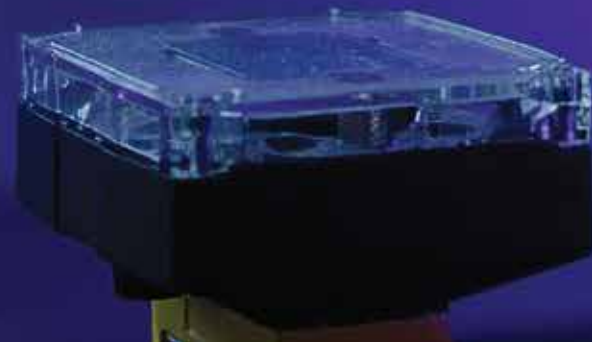


ROBOTICS & MECHATRONICS

Robots may be smart, but they don't have brains – that's where you come in. Mechatronics is just a fancy word for anything to do with electronics and mechanical engineering. Your job will be to set up, operate and repair these complex devices to keep everything functioning without any hiccups.

IS THIS RIGHT FOR ME?

People who enjoy working with technology, creative problem-solving and learning about smart systems would shine in these roles.



TOP INDUSTRIES

Connecticut's robotics and mechatronics positions are essential in industries such as **aerospace, pharmaceuticals, advanced manufacturing, and logistics.**

ENTRY-LEVEL MECHATRONICS TECHNOLOGISTS & TECHNICIANS:

52k

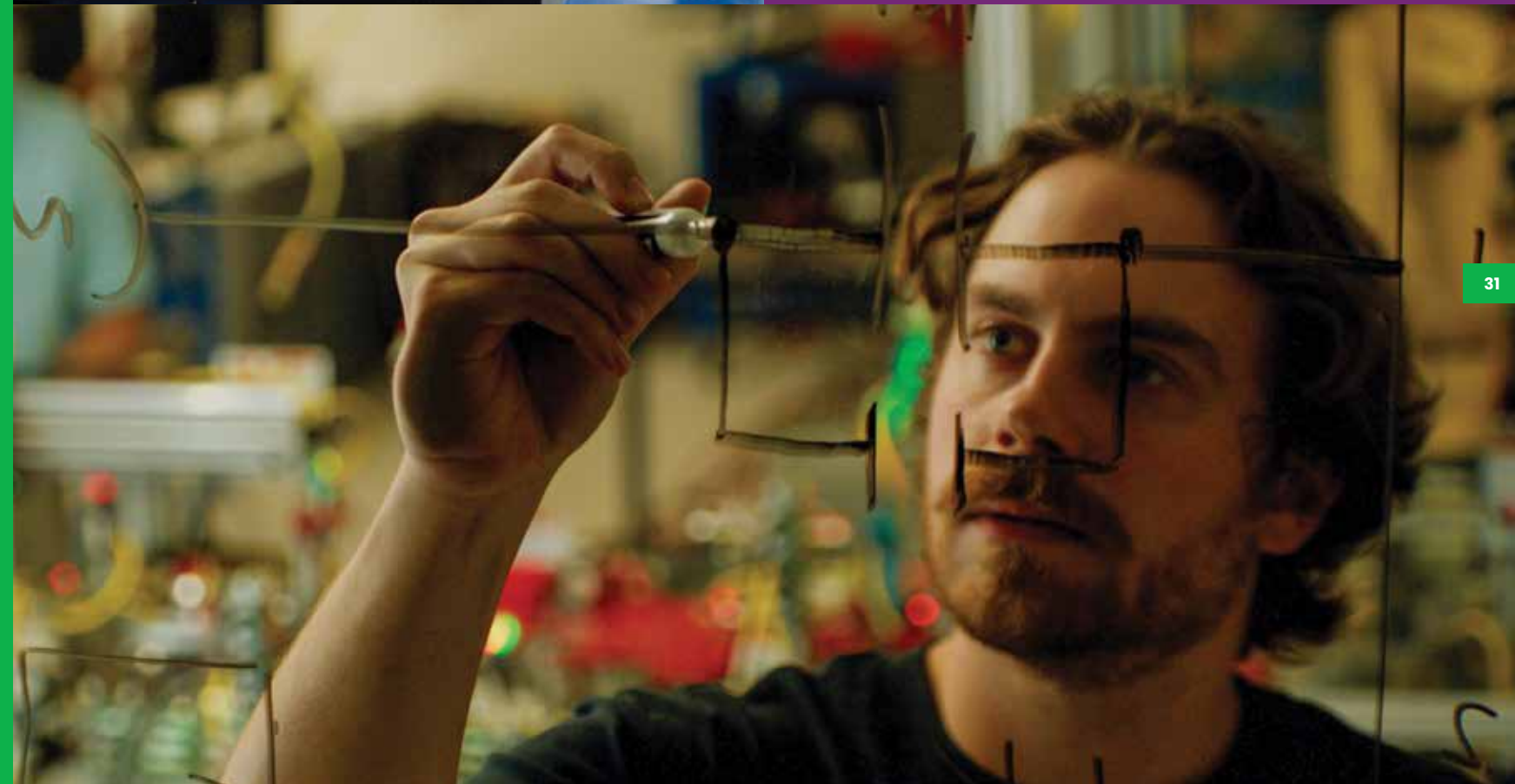
In Connecticut, entry-level mechatronics technologists and technicians start at about \$52,748. The mean salary for these positions is \$69,576.

“What I like most about my job is knowing that, in the grand scheme of things, it has an impact on so many lives. As I complete projects, I realize that I am playing a role in ensuring the safety of pilots and families around the world.”

Cassandra
Manufacturing Engineering



I GOT IT MADE



**TURN TO PAGE 46
FOR JOB SEARCH
TIPS AND OTHER
RESOURCES**



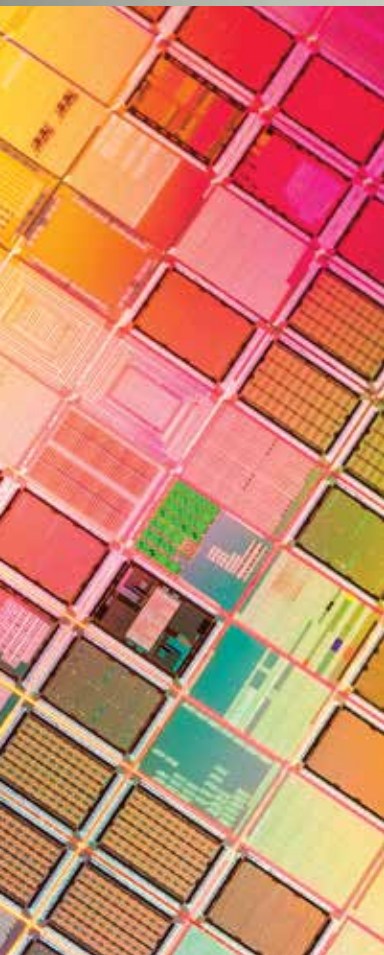


I'M A
CREATOR



MACHINE TECHNOLOGY

Machines help scale production with precision, but they require humans to ensure they run smoothly. These roles put you at the helm of high-tech machines that shape, cut and assemble everything from simple brackets to complex aerospace components. As technology advances, so will your job, which means you'll always be learning.



IS THIS RIGHT FOR ME?

People who like to tinker with things, solve puzzles and get lost in detail would be a good fit for this job.



TOP INDUSTRIES

Machine technology in Connecticut is integral in production and research for many industries, including **aerospace, defense, medical devices, and precision engineering.**

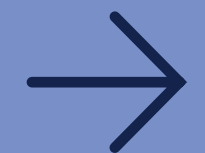


ENTRY-LEVEL MACHINISTS:

39k

In Connecticut, entry-level machinists start at about \$39,228. The mean salary for this role is \$58,947.

TURN TO PAGE
44 FOR JOB
SEARCH TIPS
AND OTHER
RESOURCES





I GOT IT MADE

“ The biggest surprise I experienced was the atmosphere on the shop floor. I never knew that people would care so much about what they do every day. After seeing the amount of work and people that one part must go through, I feel safer riding in an airplane.”

Victor

Coating Processor & Maintenance Technician



SKILLS

I GOT

MOVIN' UP.

As with any industry, the more education you've got under your belt, the more opportunities you can take advantage of. **These next positions require either an undergraduate or graduate degree.** If you start with an entry-level position and want to move up later, your employer may help sponsor your education.

UNDERGRADUATE OR GRADUATE DEGREE POSITIONS

MODEL-BASED SYSTEMS ENGINEER TECHNICIAN (AAS OR BS)

Provide model-based engineering support primarily via development, testing and maintenance of digital models.

COLLABORATIVE ROBOTICS SPECIALIST (AAS AND BS)

Implement collaborative robotics platforms and train new operators in their use.

DIGITAL THREAD ENGINEER (BS)

Develop and manage a framework that helps create a virtual representation, or digital twin, of a product, process or system.

MODEL-BASED SYSTEMS ENGINEERING (BS)

Develop analytical models of products and their subsystems that support the development, design, analysis, validation, operation, and sustainment of a product.

MANUFACTURING CYBERSECURITY STRATEGIST (BS)

Evaluate the potential risks of digital systems for controlling physical assets and figure out how to protect and secure these systems.

AUGMENTED REALITY SYSTEM SPECIALIST (AAS OR BS)

Apply VR/AR systems that support a product throughout its lifecycle.

DIGITAL FACTORY AUTOMATION ENGINEER (AAS AND BS)

Develop and apply automation solutions that improve manufacturing productivity and product quality.

PREDICTIVE MAINTENANCE SYSTEM SPECIALIST (BS)

Monitor equipment performance and predict maintenance needs using sensors and data analysis to ensure everything runs smoothly.

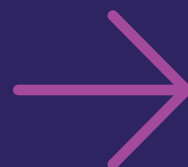
DIGITAL TWIN ARCHITECT (BS OR MS)

Design the framework of data to create virtual representations of real-world entities and constantly evolving processes.

ENTERPRISE SUPPLY NETWORK MANAGER (BS OR MS)

Maintain and enhance all segments of a supply network.

TURN TO PAGE 46 FOR JOB SEARCH TIPS AND OTHER RESOURCES



Still in high school?

Connecticut's manufacturing industry has a long list of programs, resources and events being added regularly. These are just the beginning.

JOB SEARCH TIPS: To look for a role with no advanced education requirement, here's a good place to start.

Visit portal.ct.gov/careerconnect to search and register for free manufacturing job training.

Register with CTHires.com for skills matching, resume help and job search.

Search for jobs at Indeed.com by using the job titles on pages 10-13 or by keyword "manufacturing," and select the appropriate experience level.

CAREER CENTER/COUNSELOR

Your school guidance counselor can provide information about opportunities in manufacturing.

EASTERN CONNECTICUT WORKFORCE INVESTMENT BOARD, YOUTH MANUFACTURING PIPELINE

Immerse yourself in this unique internship opportunity operating in select Eastern Connecticut high schools.



ewib.org

CT MANUFACTURING CAREERS ROADSHOW SERIES

This series hosts interactive and informative events for students, designed to raise awareness of the broad opportunities and well-paying, interesting, and modern careers now available in Connecticut manufacturing.



readyct.org

MAKER MULTIPLIERS

Learn from makers throughout the manufacturing industry. Attend a Maker Meet Up, a series of regional events giving parents and their young adults an opportunity to meet young professionals working in manufacturing.



makermultipliers.com

MFG SKILLS CT

Provides students and families with comprehensive, self-paced info about the great career opportunities available in manufacturing.



mfgskillsct.com

Certificate training opportunities

Connecticut's manufacturing industry has a long list of programs, resources and events being added regularly. These are just the beginning.

CT STATE COMMUNITY COLLEGE (CSCC)

Offering short-term certificate:

Mechatronics Automation Technician, Precision Manufacturing, Welding Fabrication Technologies



ctstate.edu

GOODWIN UNIVERSITY

Offering short-term certificate:

Computer Automated Design (CAD), Industrial Service Technician, Mechatronics, and Production Technician



goodwin.edu

MANUFACTURING ALLIANCE SERVICE CORPORATION (MASC)

Offering short-term certificate:

CNC I Operator, Manufacturing Machinist, Shipyard Machinist, Plastic Injection Molding, CNC II Mastercam Technician, Mechatronics, and Production Technician



mascttc.com

EASTERN CT MANUFACTURING PIPELINE

Provides no-cost, short-term training to address the hiring needs of Electric Boat and other employers in Eastern CT.



ewib.org

IN-PERSON JOB FAIRS

Southwest CT Manufacturing Partnership

→ ctmakesit.com/expo

Eastern Connecticut Manufacturing Partnership

→ ewib.org

South Central Manufacturing Partnership

→ scmpct.com

North Central/Capital Region Partnership

→ ccat.us/amep-program

2-year and 4-year college degree opportunities

Connecticut's manufacturing industry has a long list of programs, resources and events being added regularly. These are just the beginning.

<p>CT STATE COMMUNITY COLLEGE (CSCC) Advanced Manufacturing Technologies / Manufacturing Engineering / Robotics and Mechatronics</p>	<p>→ ctstate.edu</p>	<p>UNIVERSITY OF BRIDGEPORT Electrical Engineering / Mechanical Engineering</p> <p>→ bridgeport.edu</p>
<p>CENTRAL CT STATE UNIVERSITY Manufacturing Engineering Technology / Electrical Engineering / Mechanical Engineering / Robotics & Mechatronics</p>	<p>→ ccsu.edu</p>	<p>UNIVERSITY OF CONNECTICUT Management for Engineering Manufacturing / Aerospace and Manufacturing Engineering / Robotics</p> <p>→ uconn.edu</p>
<p>46 FAIRFIELD UNIVERSITY Electrical and Mechanical Engineering</p>	<p>→ fairfield.edu</p>	<p>UNIVERSITY OF HARTFORD Aerospace Engineering / Robotics and Engineering</p> <p>→ hartford.edu</p> <p>47</p>
<p>GOODWIN UNIVERSITY Manufacturing Management / Quality Management Systems / Welding / Robotics and Automation</p>	<p>→ goodwin.edu</p>	<p>UNIVERSITY OF NEW HAVEN Industrial and Systems Engineering</p> <p>→ newhaven.edu</p>
<p>QUINNIPIAC UNIVERSITY Industrial Engineering / Engineering Management</p>	<p>→ qu.edu</p>	<p>YALE UNIVERSITY Artificial Intelligence and Machine Learning / Mechanical Engineering and Materials Science</p> <p>→ yale.edu</p>




PAID

I GOT

YOU'RE GOING PLACES. GREAT PLACES.

A career in manufacturing will take you as far as you dare to go. The companies in Connecticut are great about making sure you get the training you need, whether that's on the job or through a specialized program. As you gain experience, you'll open yourself up to more advanced roles and higher pay. Manufacturing is a stable industry – things have to get made, and somebody has to make them. Not only will you make a great income, but you'll be able to support the life you want (it's not all about work, after all).

Just take the first step.



In Connecticut, we make everything from high-tech helicopters to deep-sea submarines. But we also make things like fulfilling careers and happy lives.

YOU CAN MAKE IT HERE.



CONNECTICUT
Manufacturing

Connecticut's Office of Manufacturing creates a strong partnership between the State's resources and the manufacturing sector. Together, we spark innovation, expand our reach, and give more people the opportunity to make a life out of making. To learn more, visit manufacturing.ct.gov.