

CAREER OPPORTUNITIES IN

# MANUFACTURING AND PRODUCT DEVELOPMENT INDUSTRY SECTOR



## 10 TIPS FOR CHOOSING THE RIGHT CAREER FOR YOU

*How does a person know what career to work toward?  
There is no perfect answer, but the following 10 tips will  
get you off to a good start.*

- 1 Get to know yourself** – Complete more than one self-assessment test.
- 2 Identify your strengths and weaknesses** – What do you do well and what do you not do well?
- 3 Develop an inventory of careers** – Write down some careers that might interest you.
- 4 Research different careers** – Talk to others and use the Internet.
- 5 Write the pros and cons** – List positives and negatives about the careers that interest you.
- 6 Network** – Discuss your ideas with others.
- 7 Talk with people who work in your area of interest** – Family and friends are great resources.
- 8 Find a mentor** – Find someone with whom you can discuss your career selection.
- 9 Experiment** – Take a related class or part-time job.
- 10 Don't give up** – "If there is a will, there is a way."



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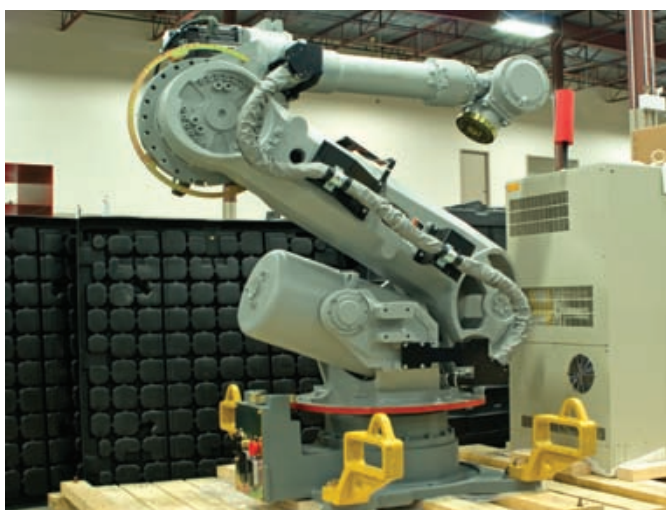
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Plan For Success  
Visit [statecenter.com/industrysectors](http://statecenter.com/industrysectors)





The Manufacturing and Product Development Industry Sector provides a foundation in manufacturing processes and systems. Manufacturing is the use of tools and labor to make products to sell. Product development involves the creation of an idea and the subsequent design and process that results in a product for sale. This sector is closely related to engineering and industrial design. An important part of California's economy, this sector produces a wide range of products from sophisticated electronic/computer-related equipment to the simplest of toys.

As our world becomes more dependent on electronics, students with training and education in manufacturing and product development will continue to be in high demand. The Manufacturing and Product Development Industry Sector is for students who enjoy working with their hands, building or designing infrastructures, and expressing themselves artistically.

Web sites  
for further information:

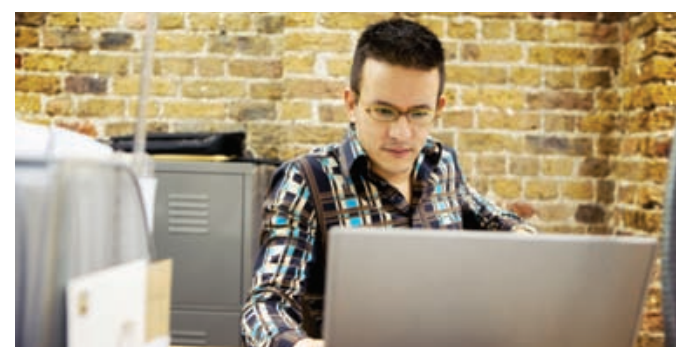
[www.californiacareers.info](http://www.californiacareers.info)

[www.whodouwant2be.com](http://www.whodouwant2be.com)

[www.californiacolleges.edu](http://www.californiacolleges.edu)

[www.edd.ca.gov/Jobs\\_and\\_Training/](http://www.edd.ca.gov/Jobs_and_Training/)

# Career Pathways



## Graphic Arts Technology Pathway

The Graphic Arts Technology Pathway provides students with an understanding of manufacturing processes and systems common to careers in graphic arts and printing technology. Designers make sketches, models, and computer simulations that are presented to engineers and marketing staff. Students will be introduced to different printing enterprises, graphic design, photography, and art and copy preparation.

### CAREERS/CAREER AREAS:

- Publisher
- Editor
- Graphic Artist/Designer
- Desktop Publishing
- Production Manager
- Network Engineer
- Industrial Designer
- Commercial Photographer



## Integrated Graphics Technology Pathway

The Integrated Graphics and Technology Pathway is for students who have a passion for both the arts

and electronics. Technology related to this pathway is continually evolving. Creativity ranks in importance with education and experience. Text, graphics, audio, video, and animation are areas explored in this pathway. Careers in this pathway involve a wide range of activities including on-demand publishing, digital imaging, analog and digital videography, and electronic image assembly.

### CAREERS/CAREER AREAS:

- Special Effects Animator
- Webmaster
- Web Designer
- Multimedia Producer
- Publication Manager
- Special Effects Journeyman



## Machine and Forming Technology Pathway

The Machine and Forming Technology Pathway teaches students how machines are designed to form products in the manufacturing industry. After a layout design is developed, the machine forming process cuts, shapes, forges, molds, casts, fastens, and finishes the manufacturing process. Skilled craftsmen ensure the finished product meets the product specifications.

### CAREERS/CAREER AREAS:

- Assembler
- Tooling Technician
- Computer Programmer
- Mechanical Engineer
- Industrial Technology Educator
- Machine Operator
- Maintenance Mechanic
- Design Engineer
- Tooling Engineer



## Welding Technology Pathway

The Welding Technology Pathway provides students with an understanding of how welding and related careers fit in the manufacturing process. During the manufacturing process, highly skilled craftsmen apply a wide variety of bonding techniques. Topics include mechanical bonding, joining, cohesive bonding, adhesive bonding, and mechanical fastening. Newer welding methods include laser, ultrasonic, and electron beam. The demand for trained welders continues to look good.

### CAREERS/CAREER AREAS:

- Welder
- Blacksmith
- Metallurgist
- Quality Control Inspector
- Fabrication Designer
- Plastics Assembler
- Composite Fabricator
- Manufacturing Engineer
- Boilermaker
- Ironworker
- Robotics Technician

