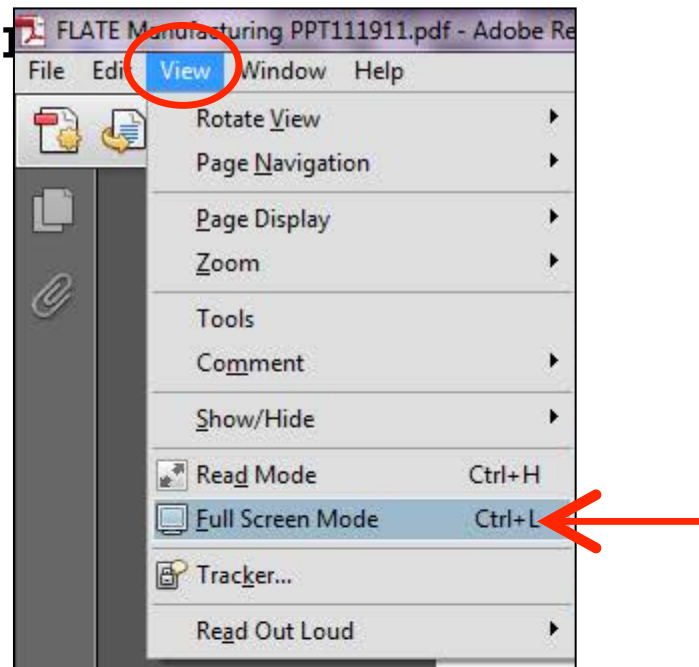


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MANUFACTURING OUTREACH PRESENTATION

FLATE, the Florida Advanced Technological Education Center is pleased to make available, for educational and non-commercial purposes only, manufacturing related outreach materials to help you promote the image of manufacturing careers in your community. As a National Science Foundation Regional Center of Excellence, one of FLATE's objectives is to build a robust "pipeline" of well trained students for your future workforce needs. This presentation may give you a basis for your presentation and is comprised of images, texts, facilitator's notes, and other demonstration materials. Facilitator notes are presented as PowerPoint notes under each slide.

This instructional resource forms part of FLATE's outreach efforts to build connections among students, teachers, and manufacturers throughout the State of Florida. Please visit our website for additional resources, including our *Made in Florida Video*, a unique behind-the-scenes visit to modern manufacturing plants in the State of Florida.

FLATE Center for Advanced Technological Education Center of Excellence
Hillsborough Community College - Brandon
10414 E Columbus Dr., Tampa, FL 33619
(813) 259-6577

www.fl-ate.org and www.madeinflorida.org

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Discover products and careers "Made in Florida"

Our Vision



FLATE will be Florida's leading resource for education and training expertise, leadership, projects, and services to promote and support the workforce in the high performance production and manufacturing community.



Discover products and careers “Made in Florida”

**MADE IN
FLORIDA**
www.madeinflorida.org



Great careers are waiting for you!!

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Discover products and careers "Made in Florida"

manufacturing



great careers
great futures
great lifestyle
great fun

WHY NOT YOU?

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great fun!

Do you get excited about ...

- ✓ making things and taking them apart?
- ✓ thinking about how to make products better?
- ✓ using new technologies and software?
- ✓ working with others in teams?
- ✓ testing new ideas?



Then the **manufacturing** industry may be the right place for you!

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what is it?

It's the magic of changing *materials* into *products* that people can use.



That includes all of us!

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products?



MADE IN FLORIDA ~ MADE IN FLORIDA ~ MADE IN FLORIDA ~ MADE IN FLORIDA

manufacturing?

1. Making something.



2. Making a lot of them.



3. Make money on your products.



MADE IN FLORIDA ~ MADE IN FLORIDA ~ MADE IN FLORIDA ~ MADE IN FLORIDA

how?

materials → → → → → products

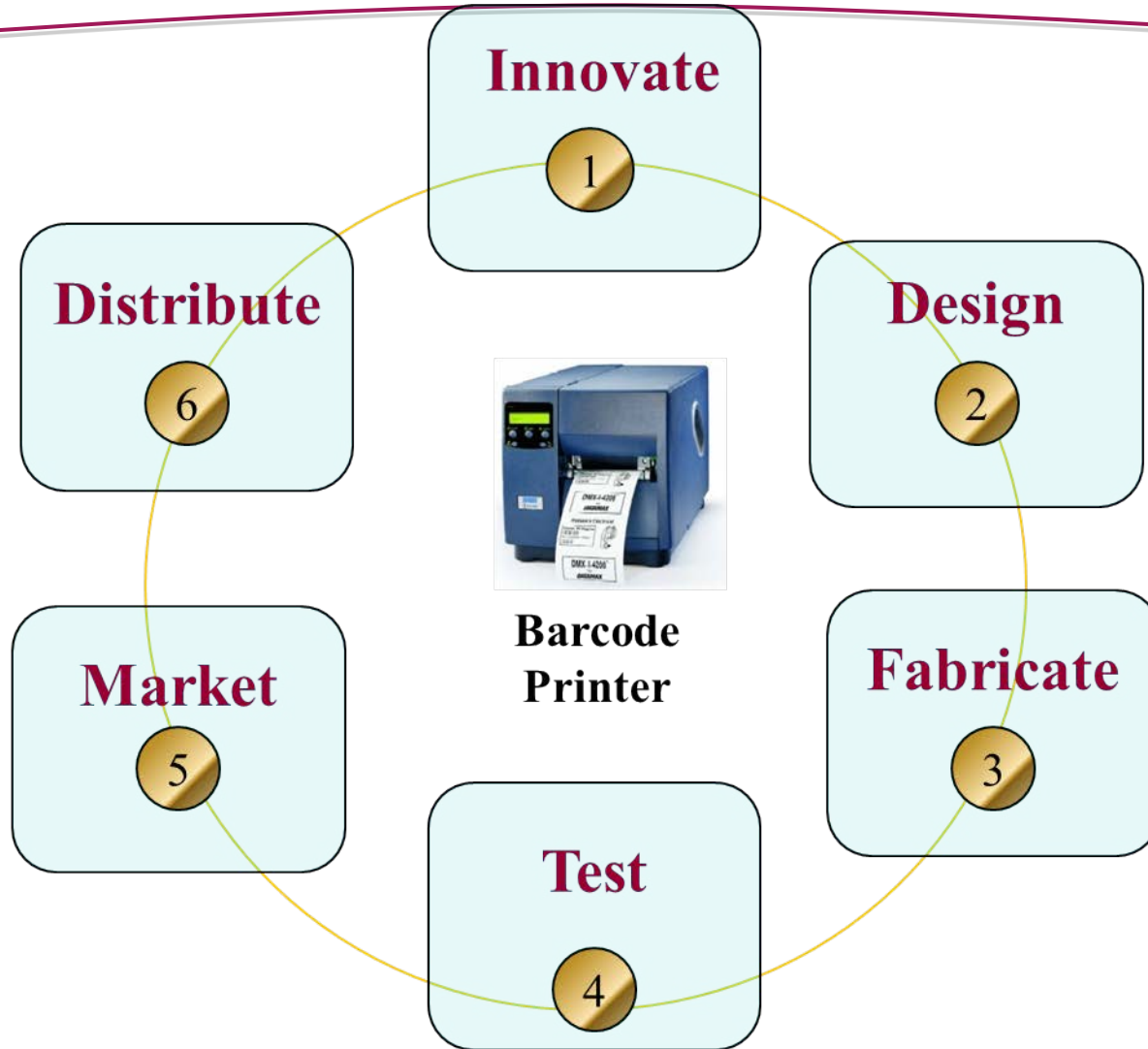


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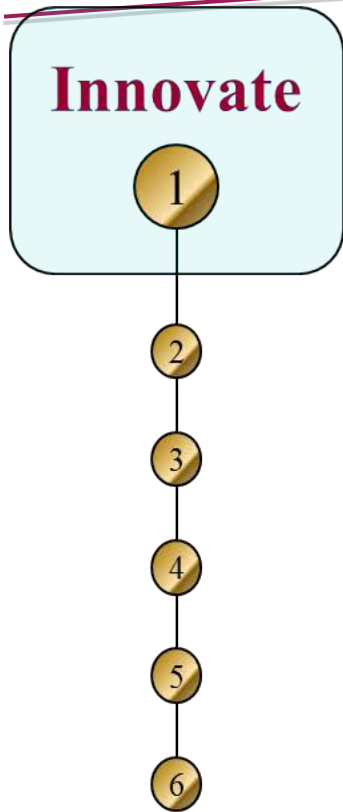


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how?



how?



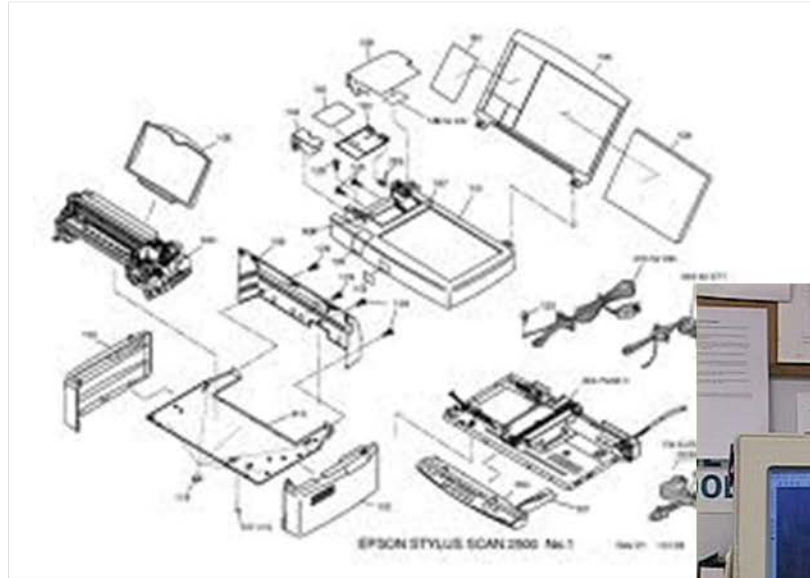
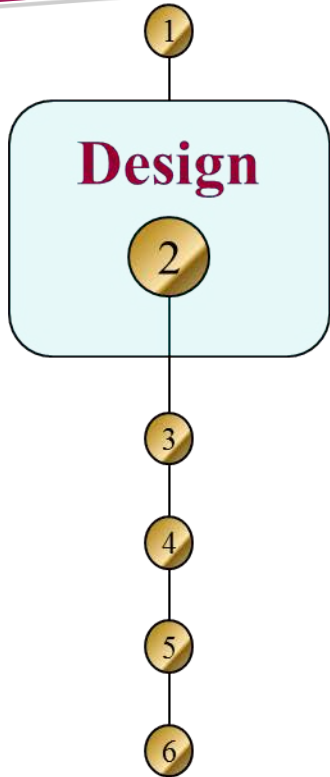
uses for barcode labels ?



OTHER

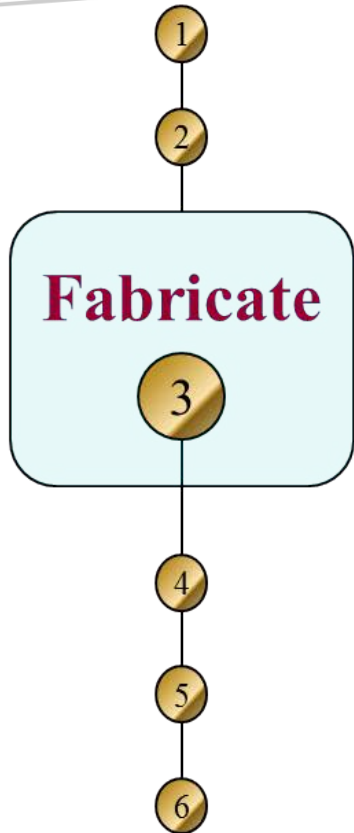
Respond to a market need or invent a new product to solve a problem.

how?



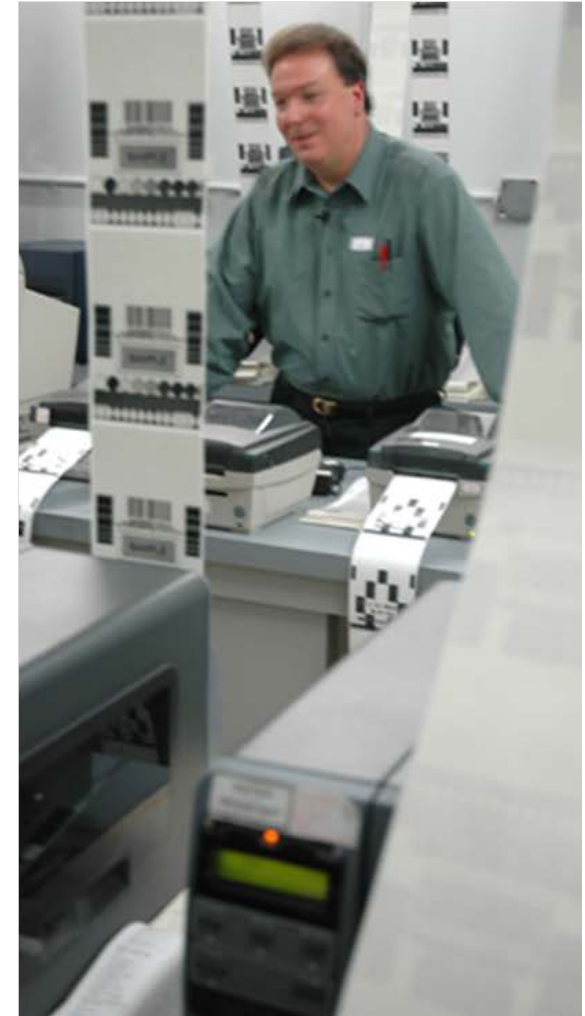
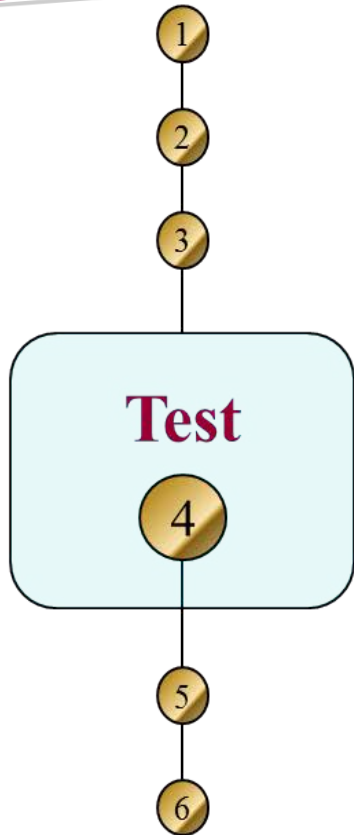
Try your ideas about what to make, how it will look and feel, how it will perform and how it could be made.

how?



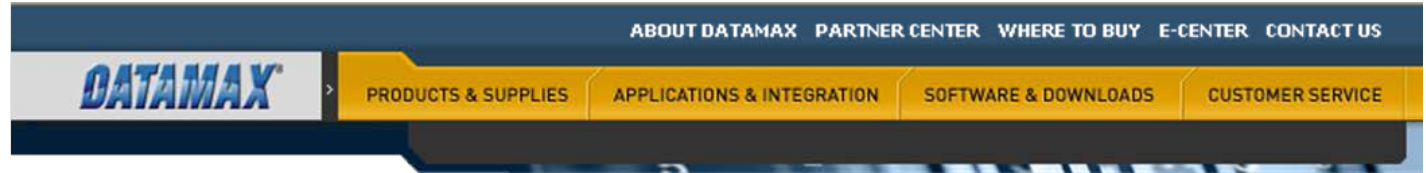
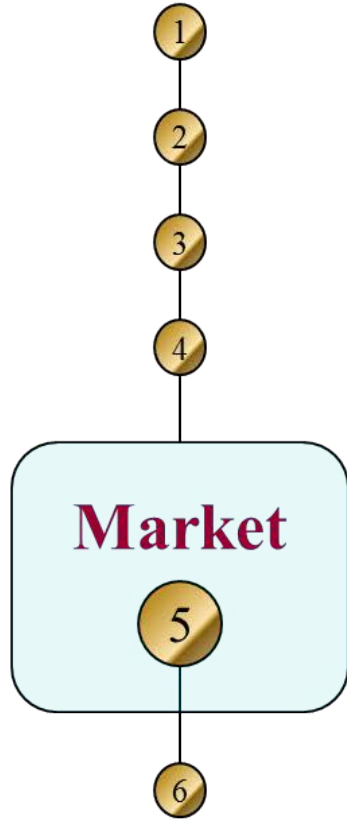
It takes skills, technology and teamwork turn ideas into real products that meet the product criteria.

how?

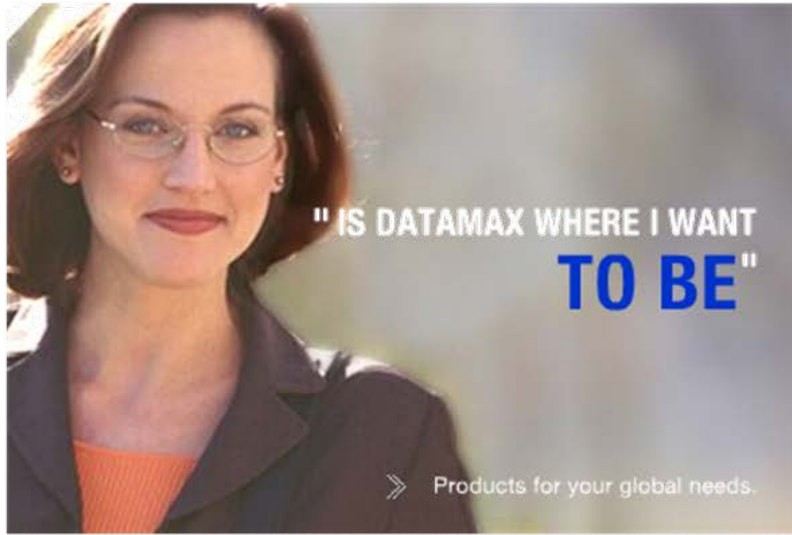


Quality is important. Everything is tested to be sure they perform as designed.

how?



Products and Supplies



Products need to be offered to potential consumers.

how?

1

2

3

4

5



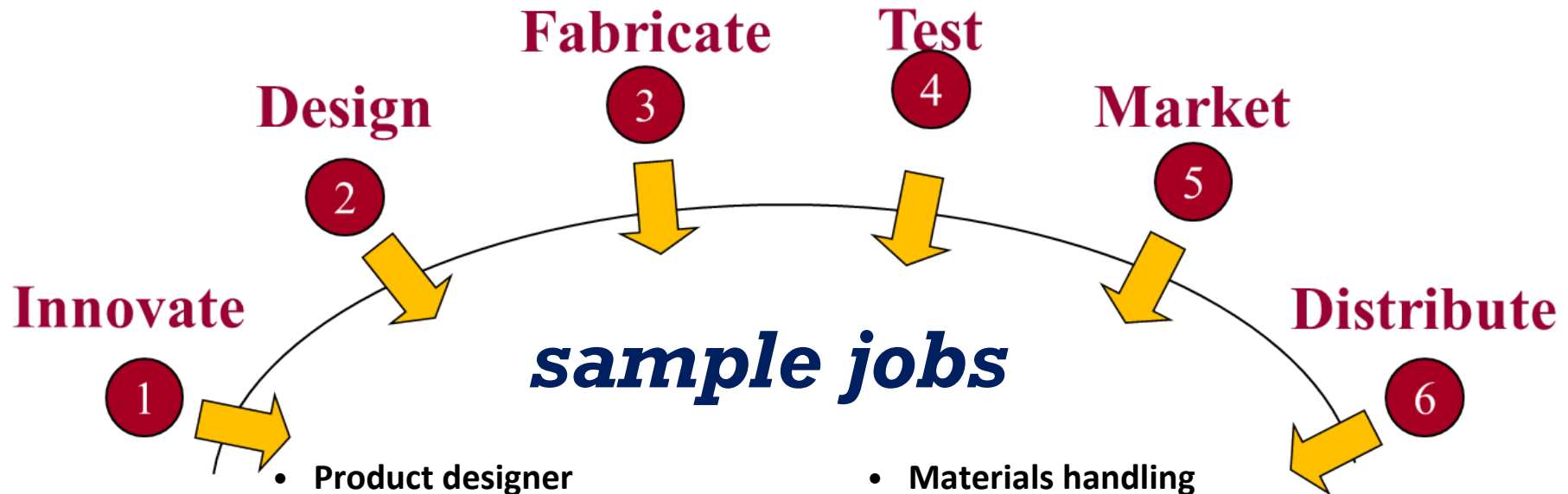
Distribute

6

Packaging and distributing products is a logistics puzzle.

great careers!

its time for you to think about your future!



- Product designer
- Production process & tool design
- Manufacturing associates/
Operators
- Equipment technicians
- Process technicians
- Automation technicians
- Facilities maintenance technicians

- Materials handling
- Logistics technicians
- Quality technicians
- Information technology (IT)
- Sales and marketing
- Customer service
- Finances
- Additive manufacturing technician
- Inspection technicians
- Packaging design and development
- Lots more!



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great careers!

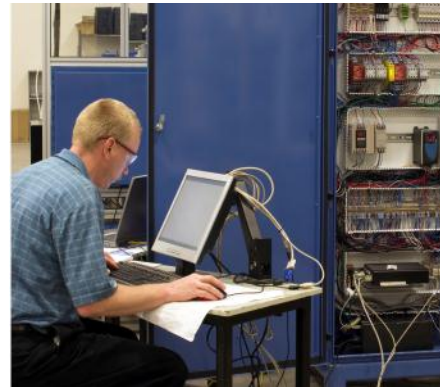
its time for **YOU** to think about your future!

Check out the many **COOL** careers that
use your imagination & skills and the
HOTTEST technologies.



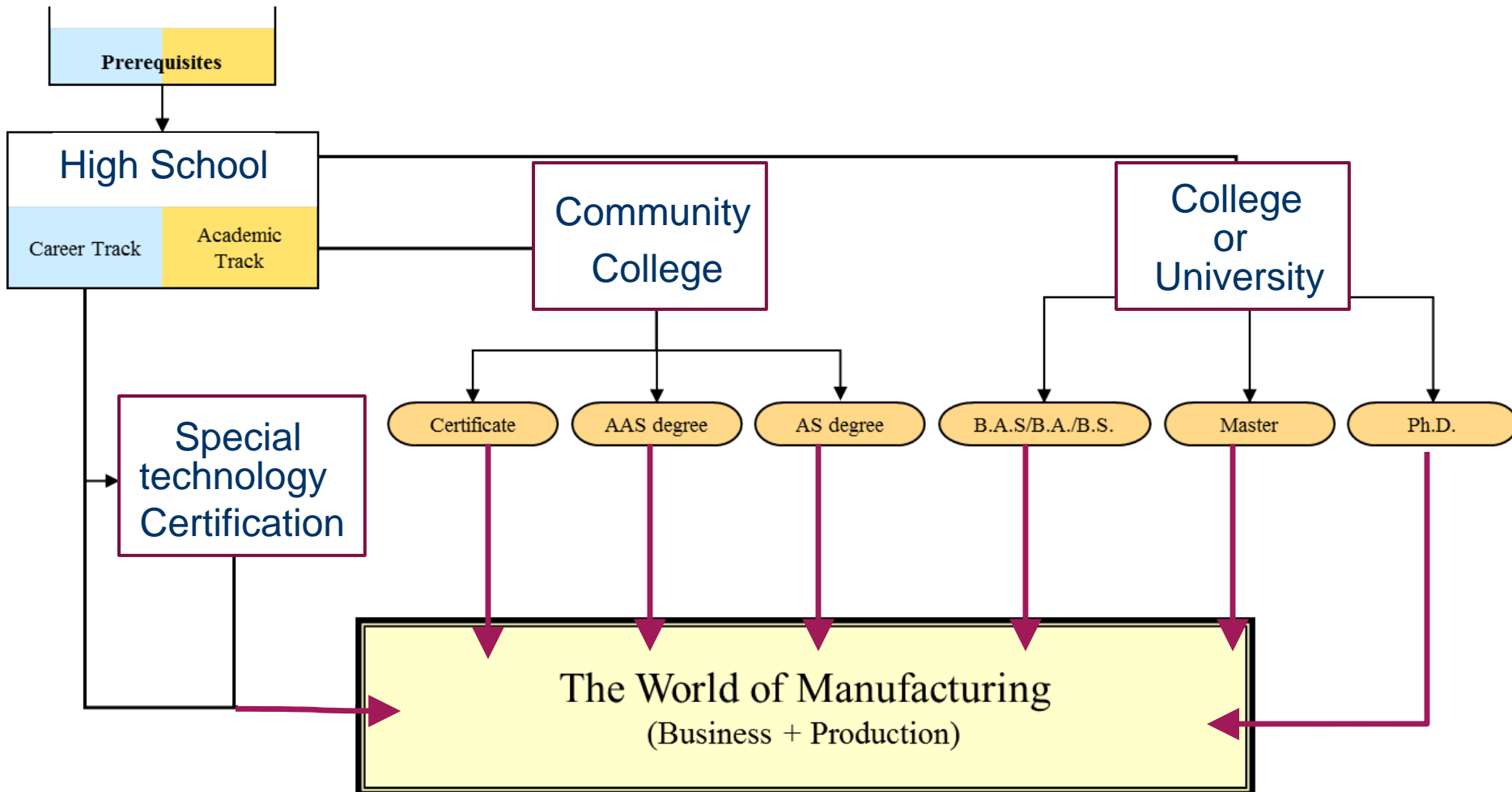
Discover products and careers "Made in Florida"

great careers!



how?

Middle School --(its time for you to think about your future!) --



Discover products and careers "Made in Florida"

who

Over **300,000** people in over **14,000** companies in Florida are making lots of things every day.

WHY NOT YOU?



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great futures

High skill, high wage and in-demand jobs keep the average wage of people working in manufacturing in Florida is over **\$50,000/year.**

WHY NOT YOU?



MADE IN FLORIDA ~ MADE IN FLORIDA ~ MADE IN FLORIDA ~ MADE IN FLORIDA



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great lifestyles..now

NOW

\$HOW ME THE MONEY



SAMPLE ENTRY LEVEL JOBS

- Manufacturing Production Technician
- Inspector, Tester, Sorter, Operator
- Electrical & Electronic Equipment Assembler
- Team Assembler

HOURLY WAGE

- \$16
- \$15
- \$14
- \$13

Require high school degree

good jobs + great pay = GREAT LIFESTLYE!



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great lifestyles..next



NEXT

SHOW ME THE MONEY

SAMPLE TECHNICIAN JOBS

- Electrical & Electronic Engineering Technician
- Machinist
- Mechanical Engineering Technician
- Quality Technician
- Industrial Engineering Technician
- Manufacturing Engineering Technologist

Require 2-4 years of education beyond high school

HOURLY WAGE

- \$25
- \$25
- \$24
- \$24
- \$22
- \$19

good jobs + great pay = GREAT LIFESTYLE!



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great lifestyles..later

LATER

SHOW ME THE MONEY



SAMPLE POSITIONS

HOURLY PAY

Computer Software Engineer	\$42
Electronics Engineer	\$39
Electrical Engineer	\$38
Quality Engineer	\$35
Manufacturing Engineer	\$33
Mechanical Engineer	\$33
Applied Scientist	\$30

Require 4 or more years of education beyond high school plus work experience

good jobs + great pay = GREAT LIFESTYLE!



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Do what you



Biological and medical



Leisure & Entertainment



Systems Engineering



Electronic Devices



Aviation and Aeronautics



Metals and Plastics



Processing



Food, Paper, Beverage & Cosmetics



Transportation



Discover products and careers "Made in Florida"

Do what you



Aviation & Aeronautics



Transportation



Medical Devices



Metals and Plastics



Electronic Devices



Systems Engineering



Food, Paper, Beverage &
Cosmetics



Leisure & Entertainment



Others

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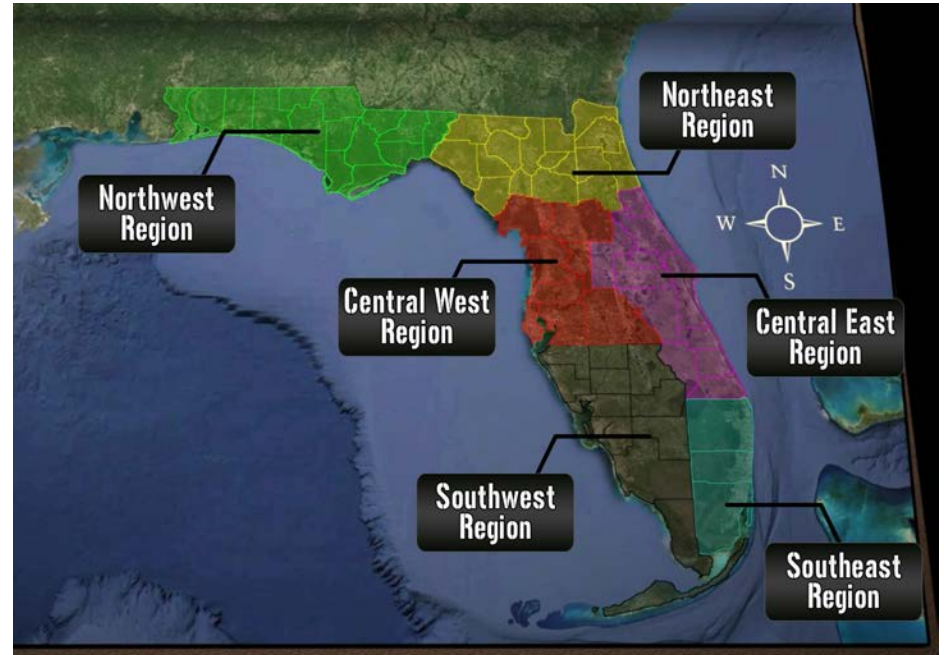
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watch

Made in FLORIDA
What's made in your backyard?

Presented By:



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Where R the jobs?

almost anywhere..

HARRIS www.harris.com



Harris has transformed communications and information technology from the early printing press to the Space Age, and to today's fast-paced digital age. Company employees in Florida develop some of the world's most advanced communications and information networks, products and services. Harris Corporate headquarters are in Melbourne and the company has more than 6,500 employees just in Florida (16,000 worldwide).

Communicating CAREERS!

- Precision Machinist
- Configuration Specialist
- Antenna Design Engineer
- Composite Materials Technician
- Information Security Systems Engineer

JABIL www.jabil.com



Jabil is one of the world's largest electronic manufacturing services companies, providing customized design, manufacturing, distribution, and aftermarket services for some of today's largest companies. To ensure continuous financial success and growth, Jabil operates in multiple sectors, including aftermarket services, computing & storage, defense & aerospace, digital home & office, healthcare & substitution, industrial & clean tech products, materials technology, mobility (EMC), networking and telecommunication services. For the past 10 years Jabil has experienced double-digit growth due to its unwavering commitment to the right combination of services, industries, locations, systems, products and people.

Customizing CAREERS!

- Design Project Manager
- Structural Engineer Technician
- Design Technician
- Testing Supervisor
- Quality Assurance

PRATT & WHITNEY www.prattcareers.com



Pratt & Whitney has supported the Space Shuttle program since its beginning and has powered missions to nearly every planet in the solar system! The company is located in West Palm Beach and is an aircraft engine manufacturer of products used in civil and military aircraft. As one of the "big three" aero-engine manufacturers, it competes with General Electric and Rolls-Royce. In addition to aircraft engines, Pratt & Whitney manufactures gas turbines for industrial and power generation, marine turbines, and rocket engines.

High-flying CAREERS!

- Production Specialist
- Maintenance Technician
- Product Marketing Specialist
- Quality Engineering Technician
- Electronics Assembler & Tester

PLASMA-THERM www.plasmatherm.com



Plasma-Therm is a U.S. based manufacturer of etch and thin film deposition equipment. At the company's St. Petersburg facility, etching equipment is produced to make semiconductor chips which are essential components of many products that we use every day. This equipment is used in devices such as cell phones, night vision goggles, LED lights and even solar panels on orbiting satellites! Employees wear caps and masks while fine-tuning machines as the microprocessors produced by Plasma-Therm are so small that a human-hair-sized defect could result in an unusable microchip.

Glowing CAREERS!

- Process Engineer
- Assembly Technician
- Maintenance Specialist
- Manufacturing Technician
- Quality Control Technician

MITSUBISHI POWER SYSTEMS www.mpsmg.com



The Orlando Manufacturing Center of Mitsubishi Power Systems uses highly automated machinery operating, production enhancing systems, and "lean" manufacturing techniques to produce turbine and quality and reliability of our gas and steam turbine parts and components. The facility significantly increases the availability of new components to support the equipment we sell to our customers.

Computer-aided CAREERS!

- CNC Machinist
- Metal Finisher/Blender
- Component Sourcing
- Product Control Technician
- Quality Engineer

CONMED LINVATEC www.conmed.com



ConMed Linvatec (Least Invasive Technology) is a global leader in the fields of arthroscopy (inspection of the inside of a joint using an endoscope), medical video systems and powered surgical instruments. Located in Largo, the company is at the forefront of technology for a wide variety of minimally invasive and orthopedic (fracture, joints, ligaments) surgery procedures. ConMed Linvatec manufactures arthroscopic instruments, implants, and tissue repair systems used by orthopedic surgeons. There are a lot of great things you could be designing and testing in the field of medical device manufacturing.

Cutting-edge CAREERS!

- Production Engineer
- Engineering Technician
- Manufacturing Technician
- Medical Device Specialist
- Quality Assurance Supervisor

EMBRAER www.embraer.com



Embraer is one of the largest aircraft-makers in the world and has produced more than 5,000 planes operating in 52 countries and on five continents! The company focuses on commercial and executive aviation and defense systems. Embraer has facilities in Melbourne and Ft. Lauderdale, as well as throughout the world. At the plant in Brevard County, where 200 skilled workers are employed, two models of the Phenom, the company's hot-selling new executive jet are assembled.

Mile high CAREERS!

- Simulation Engineer
- Quality Assurance Inspector
- Aircraft Maintenance Technician
- Electronics Assembly Technician
- Configuration Technical Specialist

SIGNATURE BRANDS www.signaturebrands.com



With the rapid growth of Signature Brands, the physical plant in Ocala, Florida required expansion and a new distribution center facility to address service the expanded volume. In May 2008, Hero purchased STC Center's 50% of Signature Brands. Joining together, Signature Brands and Hero are now the world's leading supplier of delectable food products with leadership in Germany, Poland, U.K., Canada, Australia and the U.S. Both have grown to this leadership position through production innovation, commitment to manufacturing, and with quality the cornerstone for all products.

Sweet CAREERS!

- Production Supervisor
- Production Technician
- Quality Assurance Inspector
- Processing Supervisor
- Product Testing Technician

DRAPER LABORATORY www.draper.com



Draper is a not-for-profit research and development laboratory named for its founder, Dr. Draper. Draper's engineering work led to the development of navigation systems for manned and unmanned vehicles for undersea, land and air. From military defense to space exploration, the Lab works to find innovative engineering solutions. Draper has a research and development center at the University of South Florida in Tampa and a fabrication center in St. Petersburg.

Innovating CAREERS!

- Biomedical Engineer
- Simulation Technician
- Laboratory Technician
- Micromechanical Technician
- System Integration Designer

HOERBIGER www.hoerbiger.com



HOERBIGER manufactures components and provides services designed to ensure critical industrial equipment performs more reliably with fewer harmful emissions. This equipment includes engines, compressors and turbochargers. Hoerbiger also designs and manufactures transmission components for the automotive industry, including clutches used for braking systems in heavy-duty vehicles like tractors. The company has manufacturing facilities worldwide and in Florida (Pompano Beach). Set your standards high and enjoy a challenging career!

Controlling CAREERS!

- Drafting Specialist
- Bondroom Technician
- Test System Supervisor
- Product Control Manager
- Quality Control Technician

PGT www.pgtindustries.com



After the destruction from Hurricane Andrew in 1992, PGT established itself as a leader in the manufacture and sales of impact-resistant windows and doors for homes and commercial buildings. PGT grew from just four employees in 1980 to 1,200 at its manufacturing facility in Venice. A total of 13 different window and door lines are available offering hurricane protection, security against intruders, noise reduction, and UV filtering. There are many doors of opportunity with PGT.

Crystal Clear CAREERS!

- Final Product Tester
- Mechanical Engineer
- Quality Control Technician
- Production Team Supervisor
- Mechanical Maintenance Technician

VALPAK www.valpak.com



Valpak is a results-driven marketing company that offers advertisers full service, targeted, direct marketing solutions and support services. Valpak is an affiliate of Cox Enterprises, Inc., one of America's leading media companies. Valpak coupons are produced in a highly automated facility in St. Petersburg. The facility is so automated that no one touches the coupons until you open the envelope that comes in the mail.

Valuable CAREERS!

- Process Technician
- Industrial Engineer
- Automation Specialist
- Integrated Systems Expert
- Industrial Maintenance Technician

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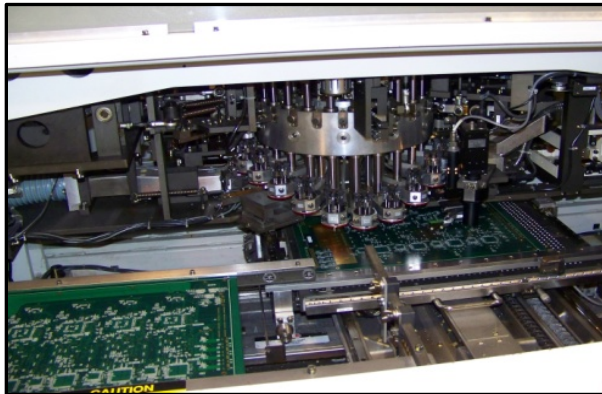
peek inside



EMI Industries



Combs Welding



Teltronics



Southern Power Coat, LLC

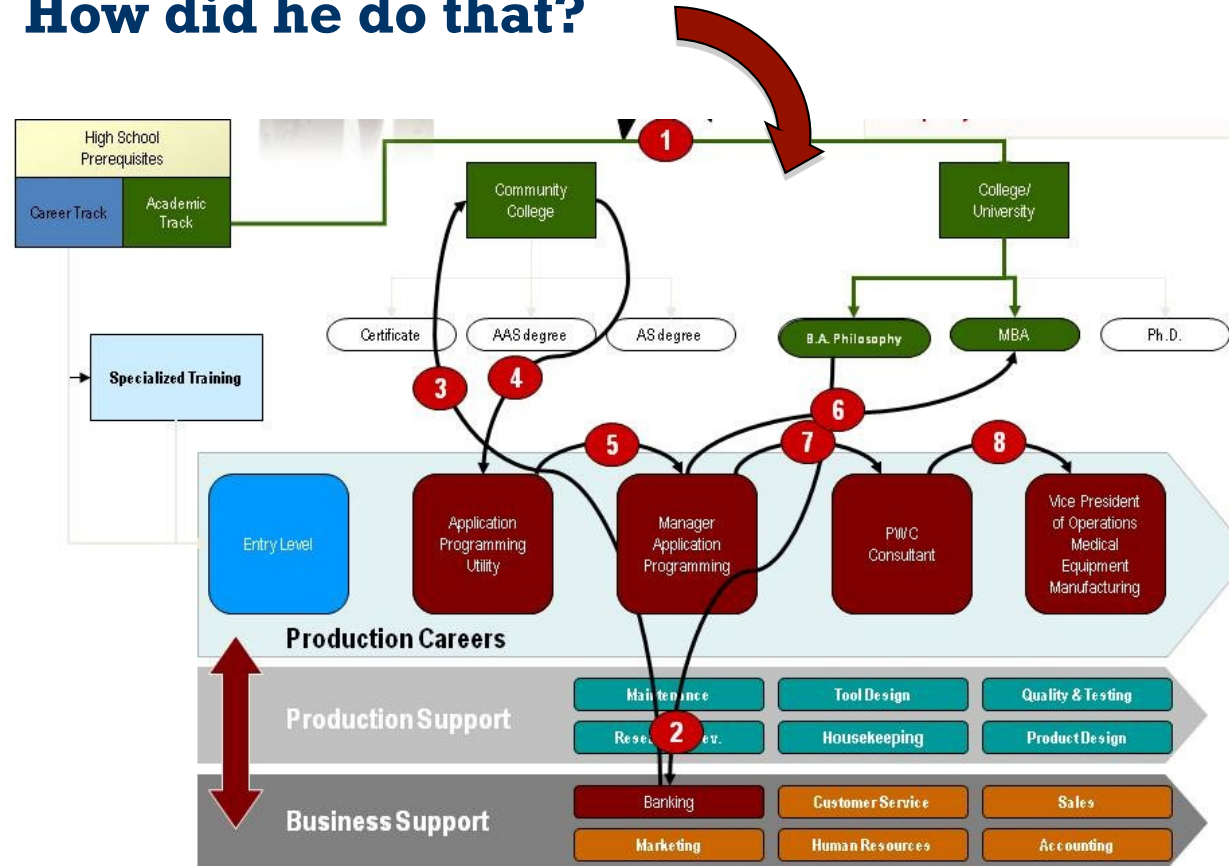
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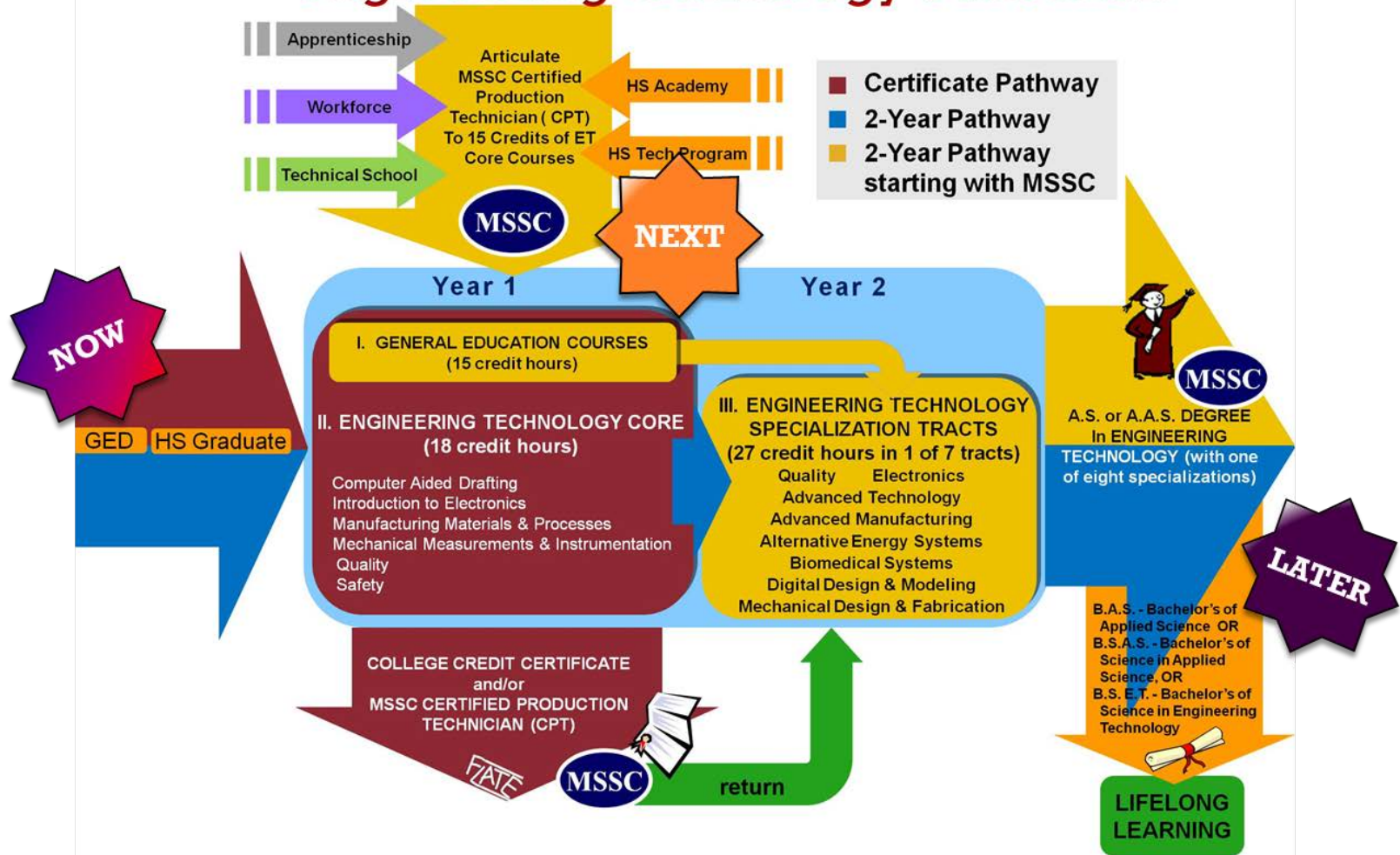
find a hero

Mark's Great Career in Florida manufacturing.
How did he do that?



get started

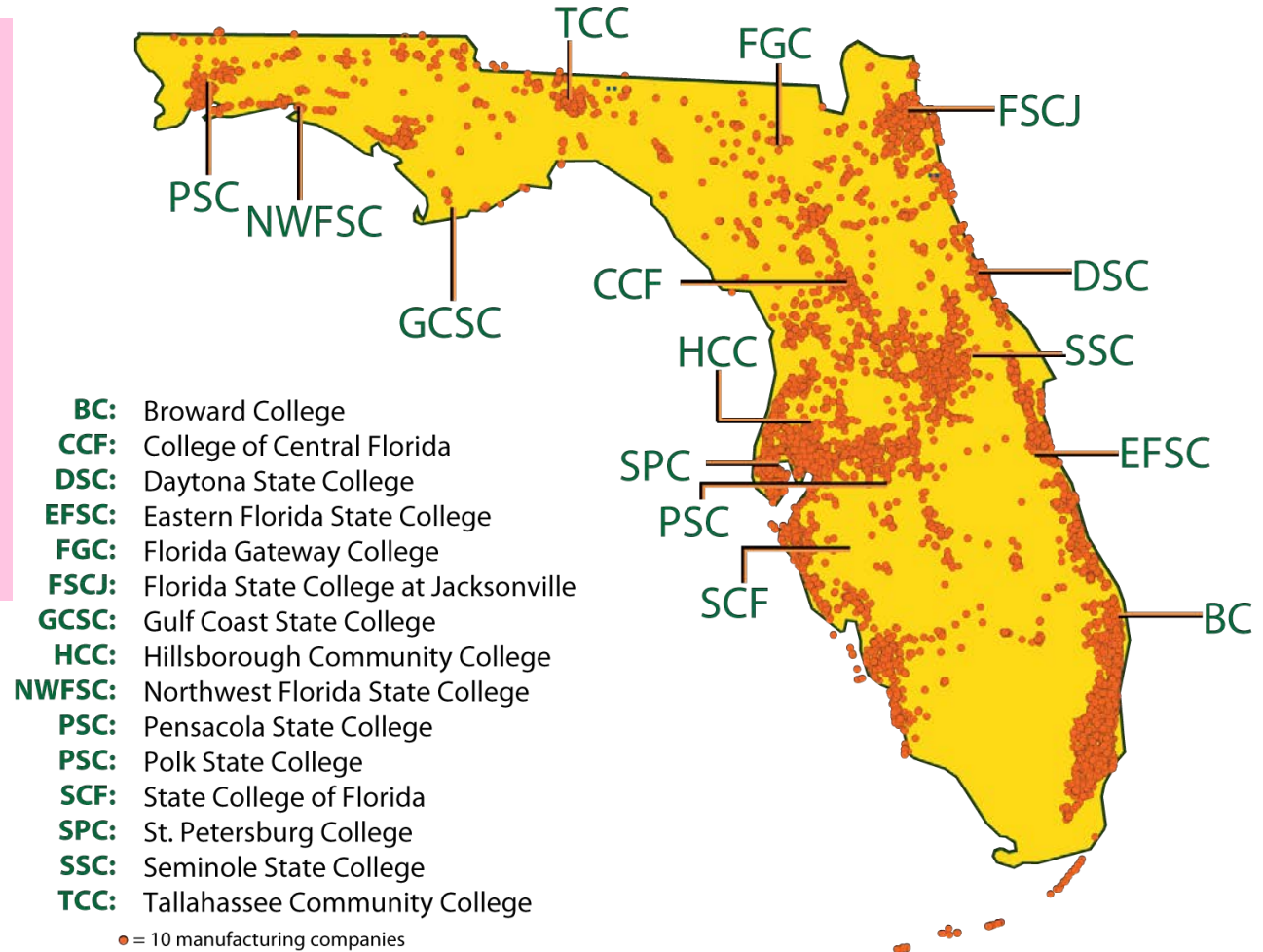
engineering technology education



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earn and learn

State and Community Colleges that offer the Engineering Technology A.S. Degree & thousands of manufacturers all over Florida are waiting for you!



2013 Company Data From Manufacturing News (c)

Any Questions?



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