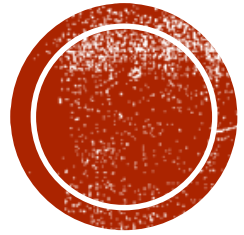


# JOSH KEMPLIN

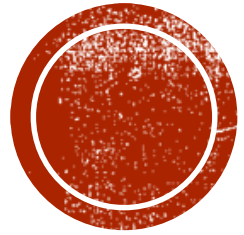
- University of Dayton Research Institute
- FASTLANE





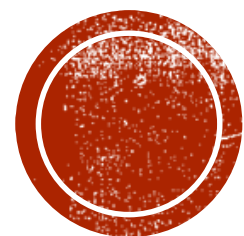
**WHAT DO YOU WANT TO  
BE WHEN YOU GROW UP?**





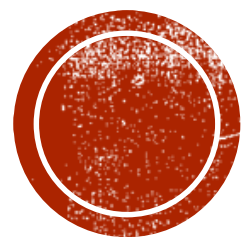
**DON'T WORRY TOO MUCH IF  
YOU DON'T HAVE AN ANSWER  
TO THE PREVIOUS SLIDE  
YET...**





# OCTOBER IS MANUFACTURING MONTH IN OHIO





# WHAT IS MANUFACTURING?



# WHAT IS MANUFACTURING?

- Definitions:
  - Make (something) on a large scale using machinery
  - Invent or fabricate
- Synonyms:
  - Make
  - Produce
  - Build
  - Assemble
  - Put together
  - Create

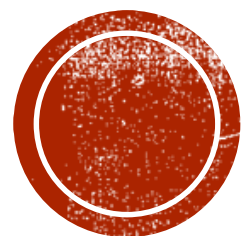


# WHAT IS MANUFACTURING?

- Close your eyes
- Think of manufacturing (or a factory)
- Get a mental image







**WILL ANYONE TELL ME  
WHAT THEY SEE WHEN  
THEY CLOSE THEIR EYES?**





# DID YOU THINK OF THIS?



\* Image from [http://northernfactoryworker.blogspot.com/2010\\_12\\_01\\_archive.html](http://northernfactoryworker.blogspot.com/2010_12_01_archive.html)



# WHAT ABOUT THIS?



\*image from <http://www.theguardian.com/money/2010/jan/09/employment-law-market-changes>



# DID ANYONE THINK OF THIS?



**Tesla Factory in Fremont California**

\*image from [http://en.wikipedia.org/wiki/Tesla\\_Motors](http://en.wikipedia.org/wiki/Tesla_Motors)





# OR THIS?



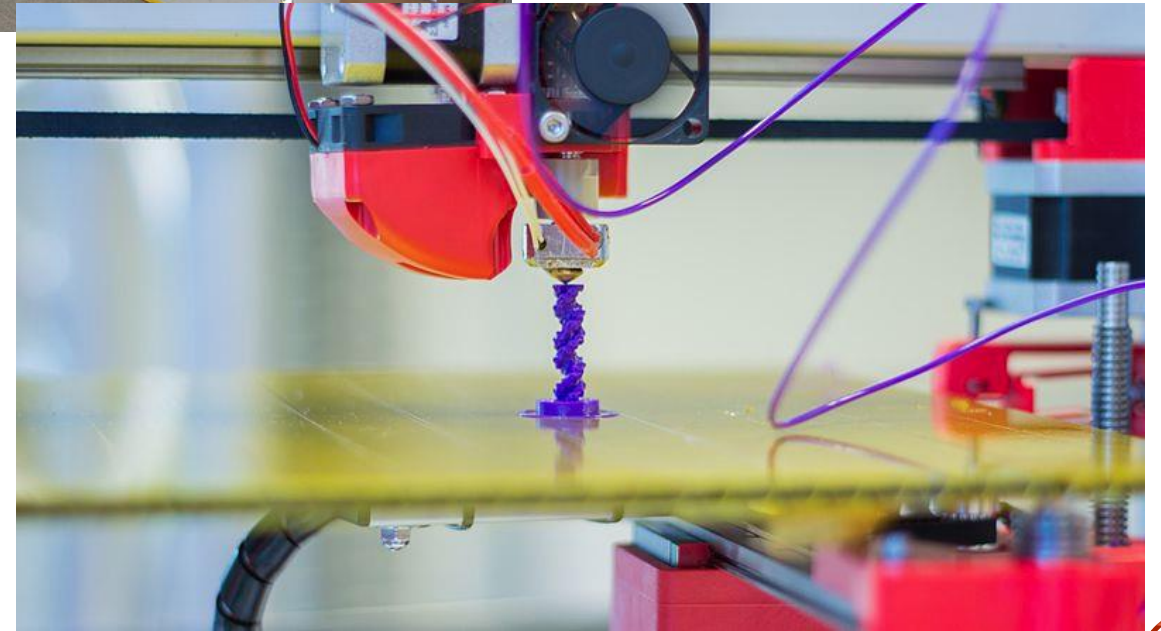
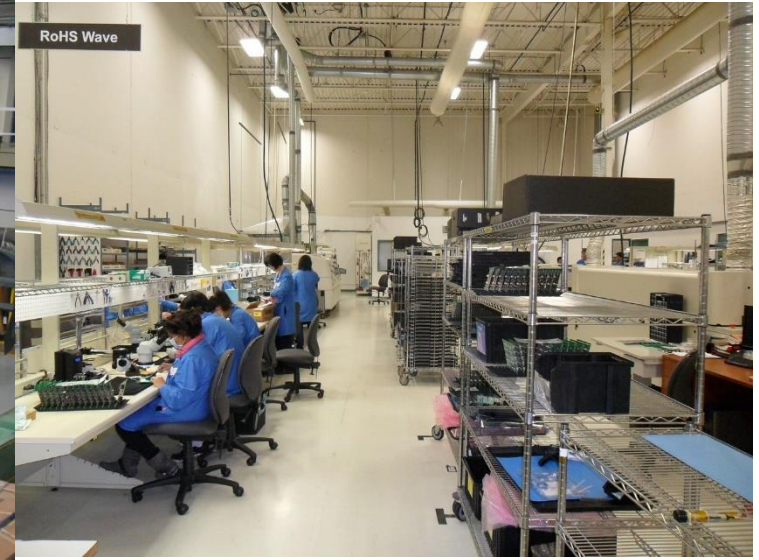
GE Aviation Plant in Cincinnati Ohio

\* image from <http://www.journal-news.com/photo/news/boeing-picks-ge-aviation-to-supply-future-777-plan/pp95k>





# OR THESE?



# MANUFACTURING IN 2014 AND BEYOND

- Manufacturing is not what you see in TV and Movies



# MANUFACTURING IN 2014 AND BEYOND

- High Tech and High Skill (STEM Skills)
  - Reading, writing and **math**\*
  - **Technical** and professional skills (**computer** and other technical knowledge required) \*
  - Self-motivation, teamwork, time management and communication\*
  - **Problem-solving**\*





# MANUFACTURING IN 2014 AND BEYOND

- High Pay
  - Average salary-and-benefit package for manufacturing workers was **\$62,700** in 2003 <sup>2</sup>
  - The national average for all jobs was \$51,000 <sup>2</sup>

1 - Managing the Mature Workforce/Report #1369," The Conference Board, Sept. 19, 2003

2 - U.S. Department of Commerce, 2003



# MANUFACTURING IN 2014 AND BEYOND

- Opportunities
  - Tuition Reimbursement
  - Advancement
  - On the Job Training
  - All levels of employment – from entry level to CEO



# A SHORT LIST OF AMERICAN MADE PRODUCTS

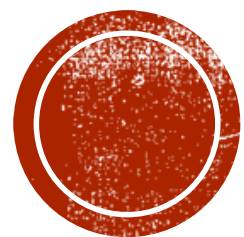
- Intel Computer Chips
- Airstream Campers
- K'NEX construction toys
- Tic-Tac-Toes dance shoes
- Wiffle balls and bats
- Crayola crayons
- Motorola Moto X smartphone
- Tesla cars



# DON'T RULE OUT A CAREER IN MANUFACTURING IF YOU LIKE...

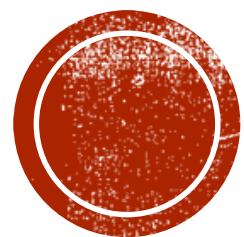
- Working with your hands
- Working with computers
- Working with technology
- Fixing things
- Taking things apart
- Art and design
- And the list goes on and on...





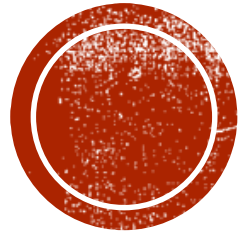
**QUESTIONS?**





**WHAT ARE THE THINGS YOU  
COULD DO ALL DAY, EVERY  
DAY... AND NEVER GET  
BORED?**





**THANK YOU VERY MUCH!**





# VIDEOS

- Tesla Motors Part Behind the Scenes of How the Tesla Model S is Made
  - [http://www.youtube.com/watch?v=8\\_lfxPI5ObM](http://www.youtube.com/watch?v=8_lfxPI5ObM)
  - <http://www.youtube.com/watch?v=TEReFPI4jSc&list=PLibNZv5Zd0dyFUng67FN0QsaIa0zyclWB>
  - <http://www.youtube.com/watch?v=YVqlZO7tHFE&list=PLibNZv5Zd0dyFUng67FN0QsaIa0zyclWB&index=10>
- Additive Manufacturing - The Next Industrial Revolution
  - <http://www.youtube.com/watch?v=l0SXIkrmzyw>
- What Is It Like To Study Manufacturing
  - <http://www.youtube.com/watch?v=Y5r9O36zrpE>

