

Product Design Overview

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Defined

The idea generation, concept development, testing and manufacturing of a product.





Design in the Silicon Valley



Semiconductor
Recreational Equipment
Medical

Alternative Energy

Automotive

Aerospace

Telecom

Commercial

Biotech

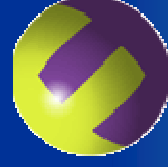
Research

Instruments

Computers

Software

Infrastructure



Fusion Design



Kick Starting Process

1. Technologies evolve and/or the economy changes.
2. Smart people have great ideas and research opportunities.
3. Companies hire/align resources.
4. Funding comes through corporate or venture sources.



People and the Development Process

1. Products are developed and Marketed.
2. The best solutions and executions often grow globally (Semiconductor equipment, PDAs, Web Search Engines)
3. Those products that don't sell well die along with their companies.
4. The people move to other companies/industries that show promise. and the cycle starts over.
5. Smart people evolve with demand.




Key Product Design Groups

- Industrial Design
- Mechanical Engineering
- Electrical Engineering
- Software Engineering
- Manufacturing Engineering
- Product Designers, Drafters
- Machinists and Technicians



Electro-Mechanical Product Design Steps

1. Review Marketing research
 2. Product Specification
 3. Industrial Design
 4. Mechanical/Electrical Design and analysis
 5. Drafting and electronic file generation
 6. Prototype
 7. Test and Update
 8. Short Run Production
 9. Test and Update
 10. Release to volume production
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Product Design segment topics for today

1. Electronics for the Agricultural
equipment world
2. Robotic medical product
development
3. Contract Product Development

