

Modern design approach

Digital Prototyping

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Requirements of time

- 
- **The minimum** period of transition from **idea** to a serial **production**

- 
- **Reduction** of development staff

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- **The minimum** of paperwork

Possible way to solve

- 
- Team should work in a **Universal information environment (system)**
 - **More simple** methods for **calculating (modeling)** the behavior of the device and its **tests**
 - **Maximum** computer-aided manufacturing

Digital Prototyping

What is a digital prototype?

Digital prototype - a digital model of the product that is used to test its functions and form. Digital prototype becomes more perfect when designers and engineers integrate all the conceptual, mechanical and electrical design data.

What problems are solved by technology?

- **Complexity** of transition from conceptual model to the design documentation
- **Dissociation** of systems and digital documentation formats for different parts of the structure
- **Separation** of process of designing from manufacture process
- **The high cost** of testing prototypes

What have we won?

- **Reducing the time** and the transition from idea to serial production.
- **Reducing the cost** of production of prototypes and testing.
- **Acceleration** of the innovation process.

Time

Money

Market

Example

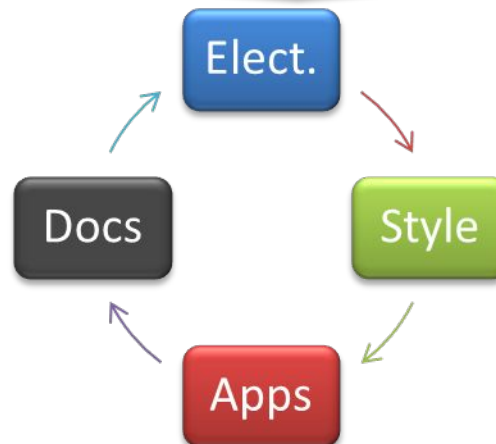
Idea

Electronics

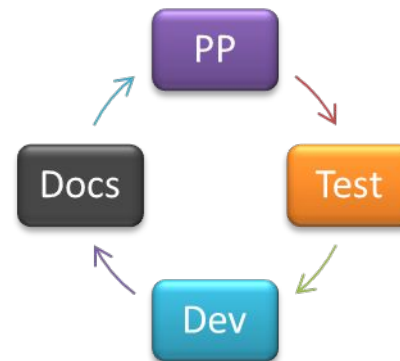
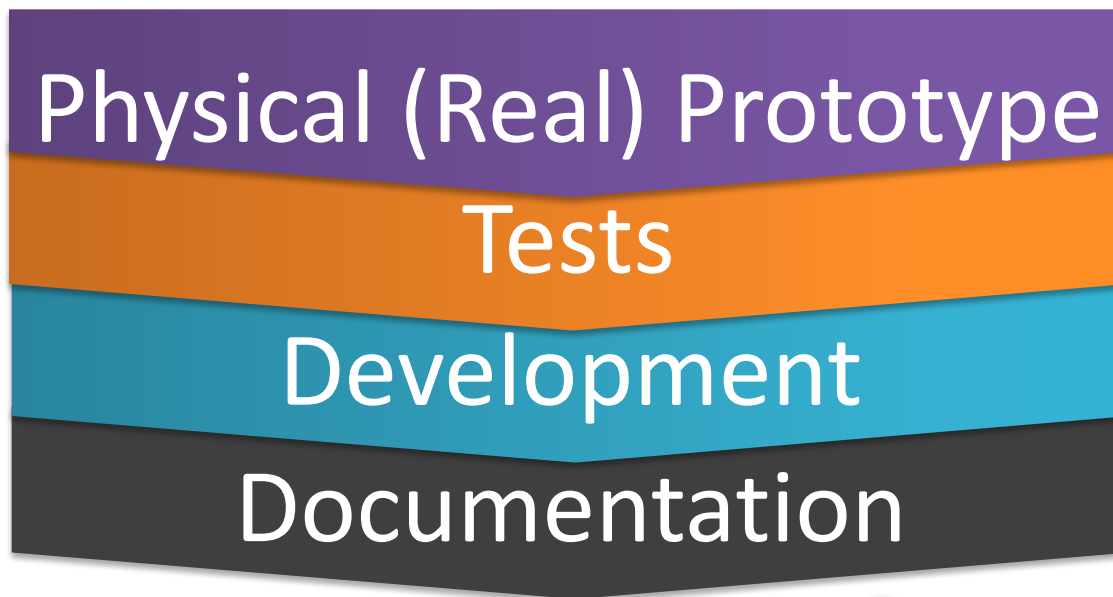
OS +
Applications

Desing
(style)

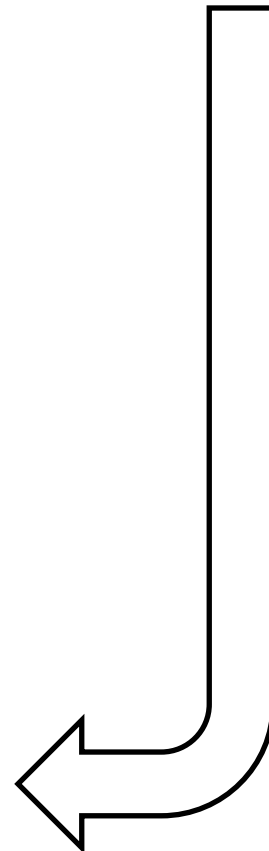
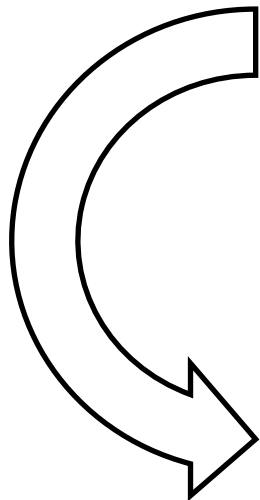
Documents



N cycles



M cycles



Idea

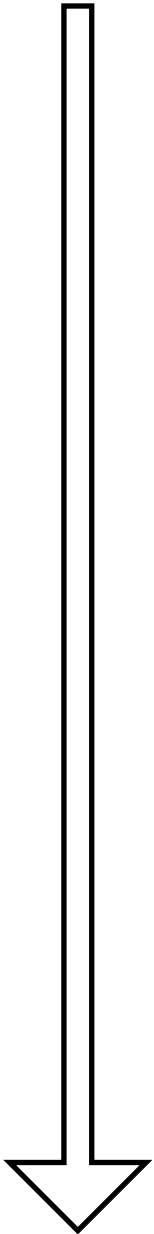
- Electronics

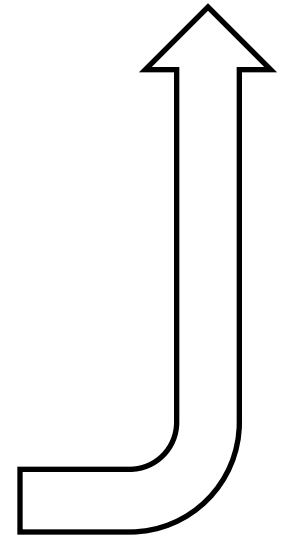
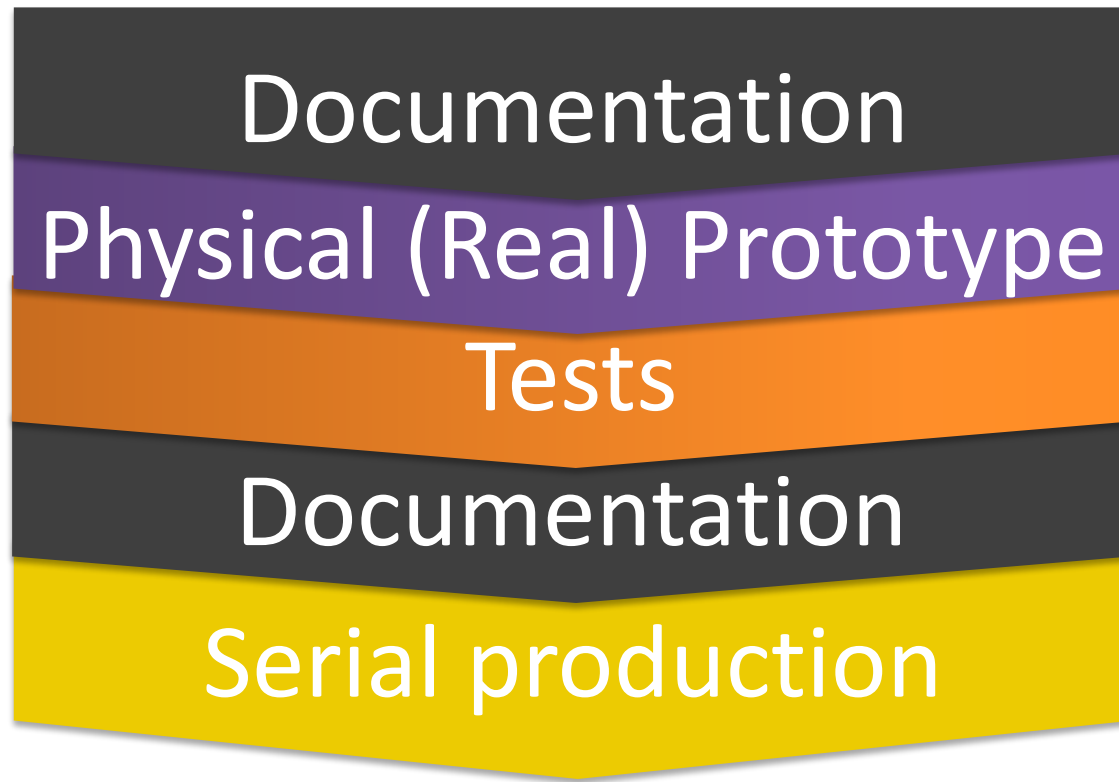
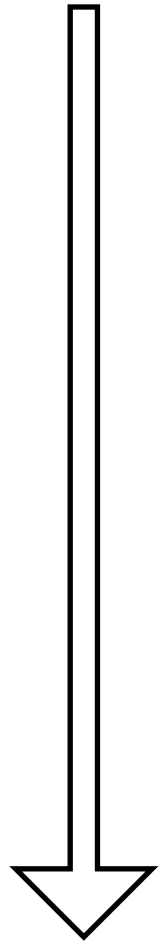
- OS + Applications

Digital
Prototype
N+M cycles

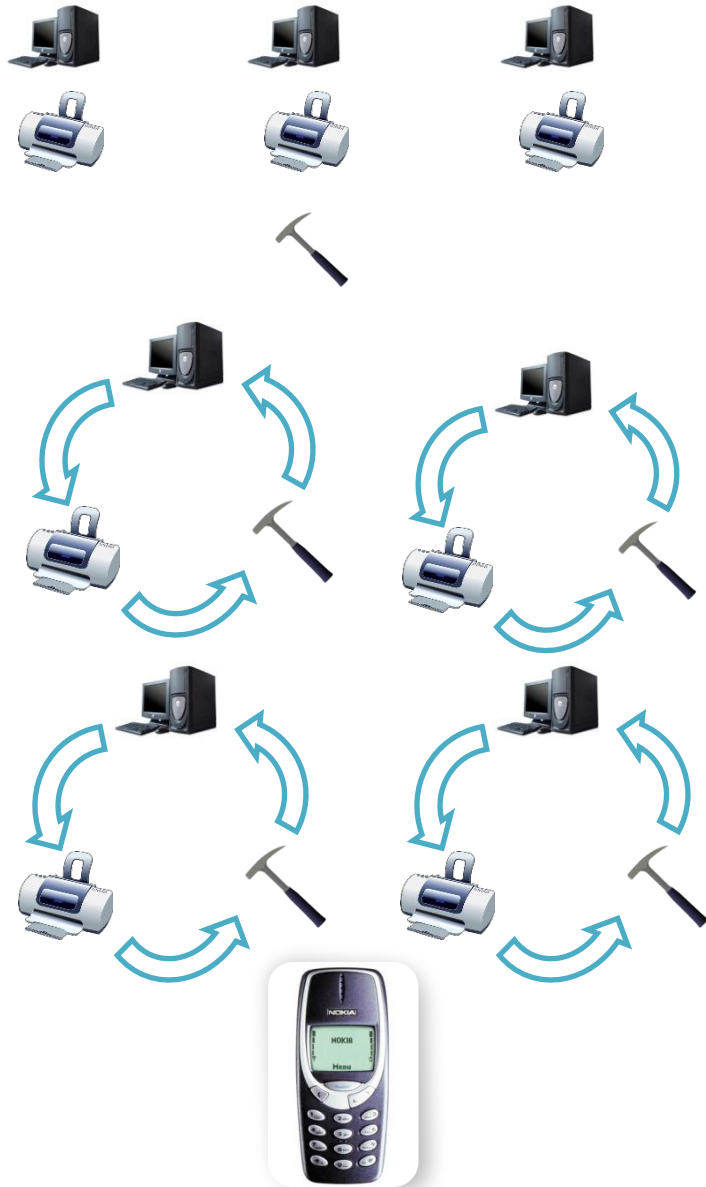
- Computer simulation

- Desing (style)

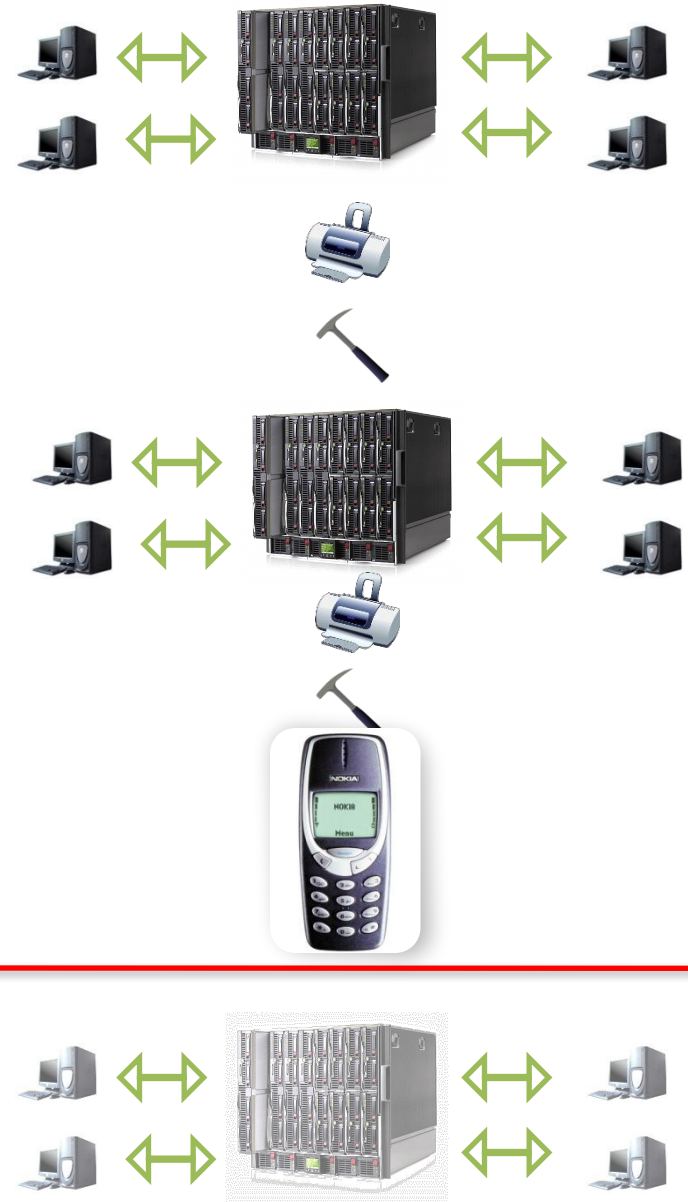




Old



New



Quote



According to recent studies, manufacturers that use digital prototypes constructed for **50% less physical prototypes** than their competitors, products entered the market **58 days earlier**, **cost of the prototype was reduced by 48%** and they free up time and resources for innovation.





Thank you for your attention