Marker Refill Station: Refills whiteboard makers overnight, uses capillary action, holds months of ink in reservoir.

Barbeque Table: Removable cutting board for meats and veggies, holds sauces, utensils, drinks and more.

Easy Jar Opener: Attaches below upper kitchen cabinets, grip jar with two hands and twist cap off easily.

Bartender's Pour Spout: Times the pouring of liquor drinks, green-yellow-red LED light sequence shows when one shot is poured.

Examples A

Footware

iMac computer

Sports car

All photos courtesy of Allesi S.P.A. Products

Kettle with purple bird shaped whistle

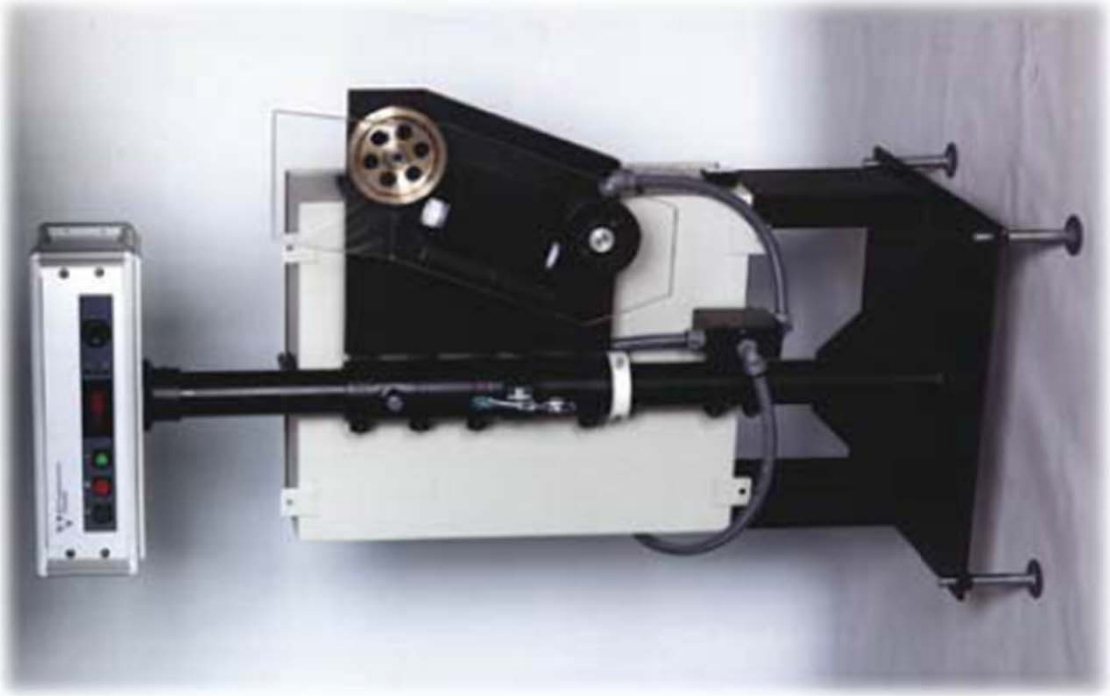
Merdolino Toilet Brush

Examples B

Dr.Skud Flyswatter

Examples C

Wire Manufacturing Machine



Ultrasound machine

Examples D

Aeron Work Chair

Bicycle

Examples E

Sports utility vehicle

Medical equipment

Development time and cost…

Some product examples

www.ideo.com

Acoustic “Listening” Devices

Integral Product Architectures

- Functional elements are implemented by multiple chunks, or a chunk may implement many functions.
- Interactions between chunks are poorly defined.
- Integral architecture generally increases performance and reduces costs for any specific product model.

Compact Camera

tics: Ibook -
Cube G4 - Lo

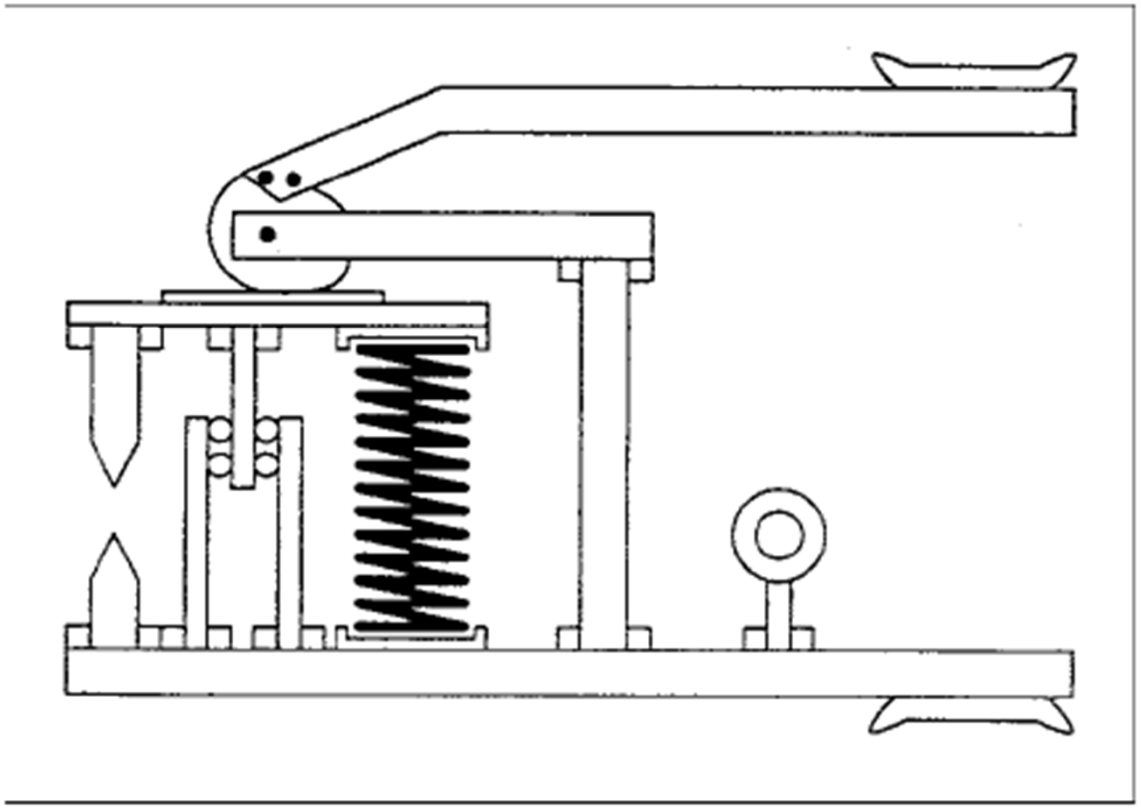
Product Development Economics Example:
Polaroid Color Photo Printer

Visual Information Example: Book Bag Design

Example: Stanley Hammer

- Designed in 1995 by Product Genesis for Stanley Tools
- Contractor Grade™
- Graphite composite shaft
- Soft rubber grip
- Sells for $20

What is this?



Modular Product Architectures

- Chunks implement one or a few functions entirely.
- Interactions between chunks are well defined.
- Modular architecture has advantages in simplicity and reusability for a product family or platform.

Swiss Army Knife

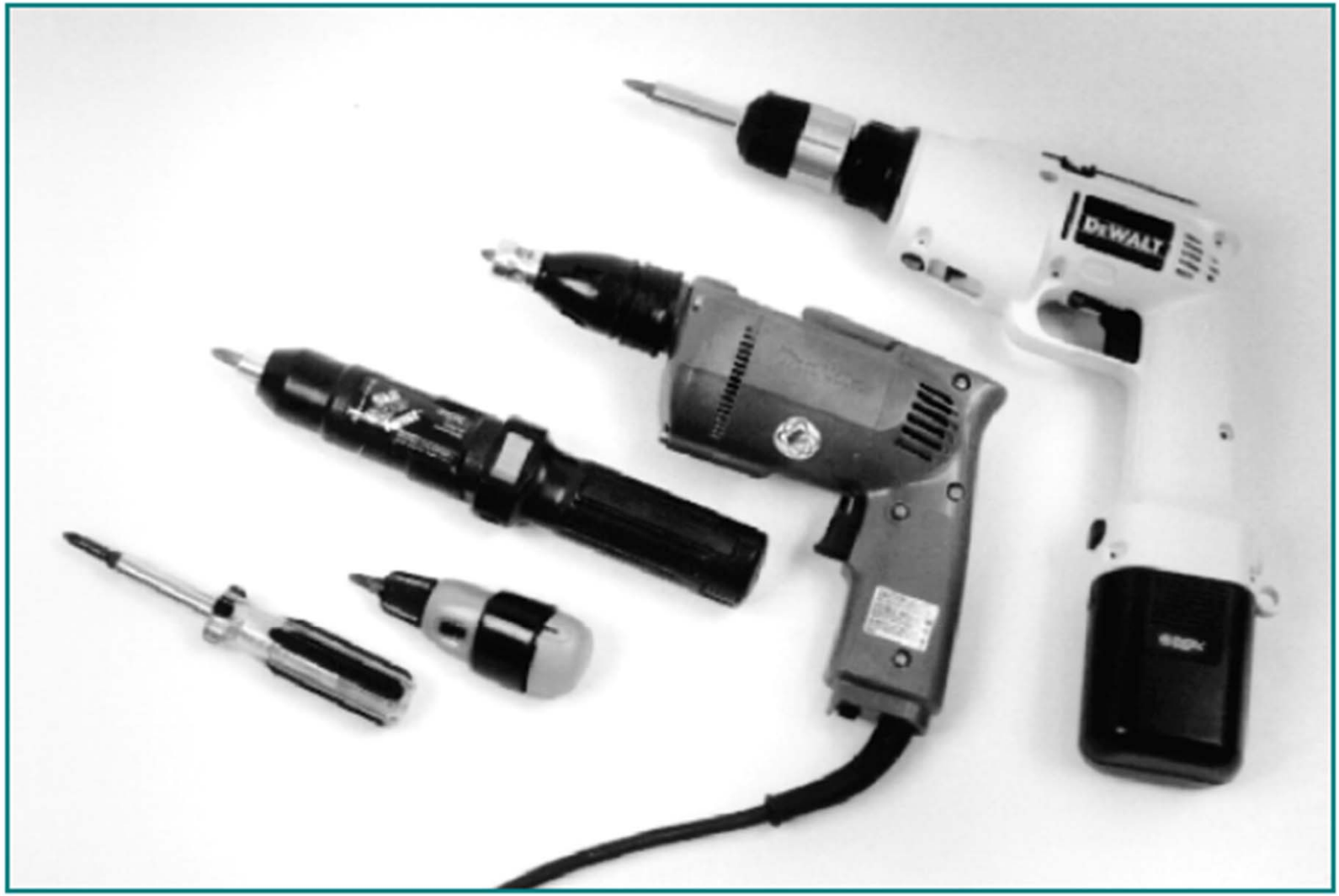
Sony Walkman

Prototyping Example:
Apple PowerBook Duo Trackball

Concept Selection Exercise: Mechanical Pencils

Concept Testing Example: emPower Electric Scooter

Customer Needs Example: Cordless Screwdrivers

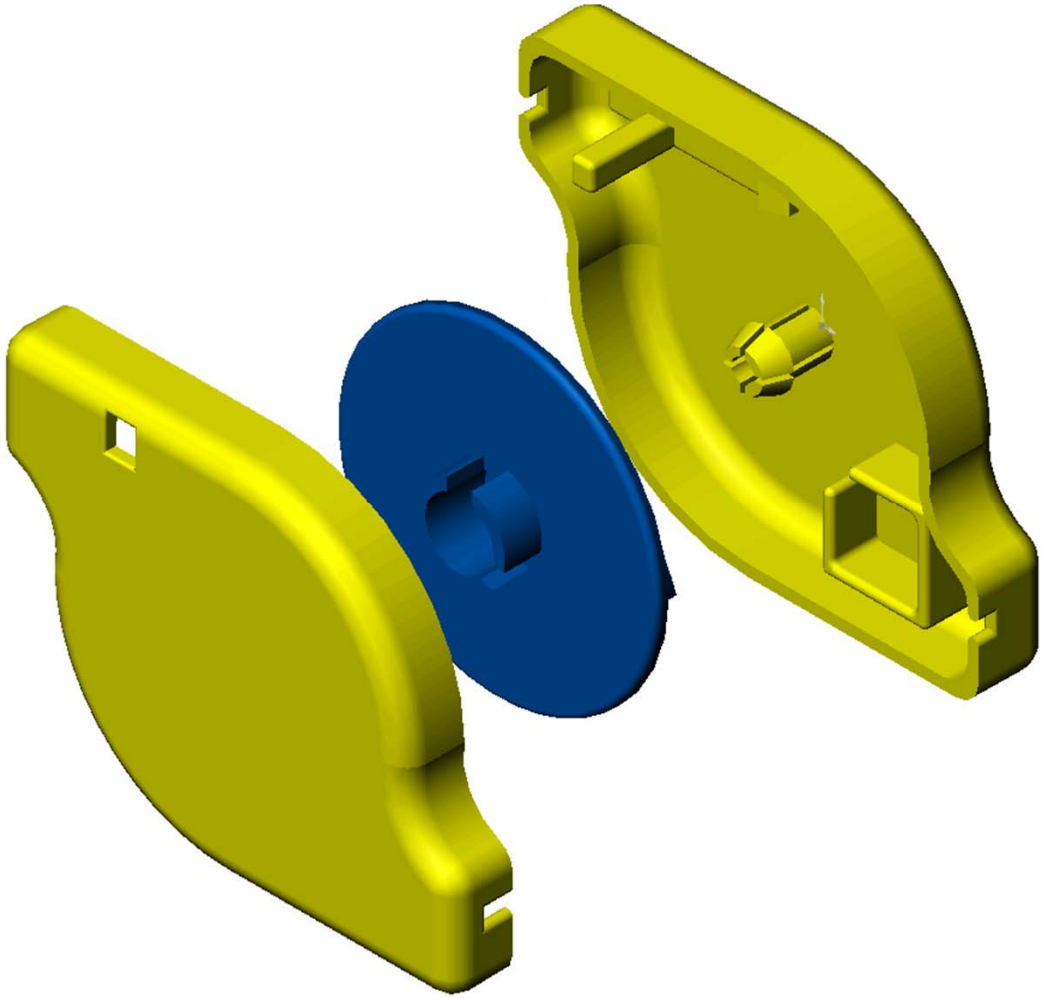


Concept Generation Example: Power Nailer

Concept Generation Exercise: Vegetable Peelers

Black & Decker SnakeLight Flexible Flashlight

Simple Assembly



Product Specifications Example: Mountain Bike Suspension Fork

Special Facilities

The Alternative is equipped with the XLT Preferred Package. This package includes a roomy SuperCab with passenger side access door. In addition, the Alternative is equipped with a color-keyed grille, an enhanced chrome front bumper, and aerodynamically styled halogen headlamps.

BASELINE

4x4 XLT Package $19,200

Buy Baseline

ALTERNATIVE

4x4 XLT w/SuperCab $24,000

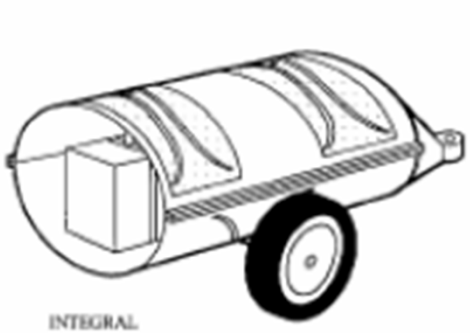
Open Door Close Door

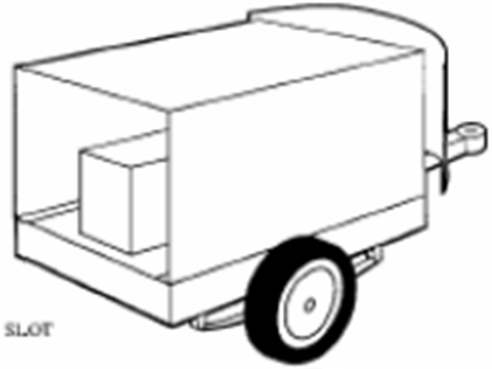
Buy Alternative

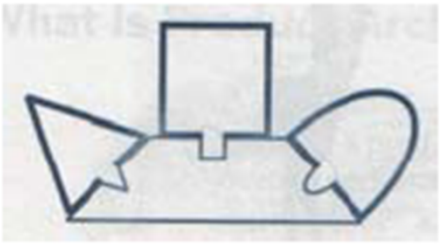
Ford Taurus
Integrated Control Panel

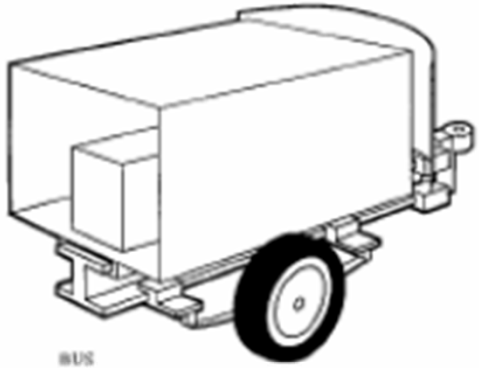
Newer models manufactured by Xerox Corporation.
Used with permission

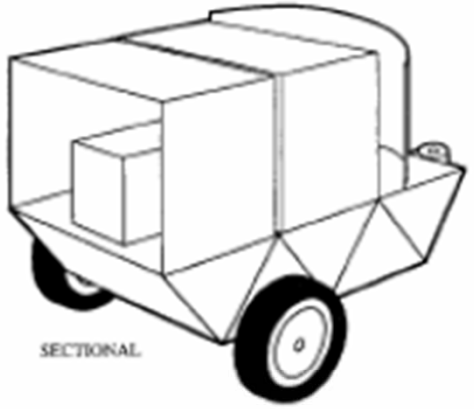
Types of Modularity

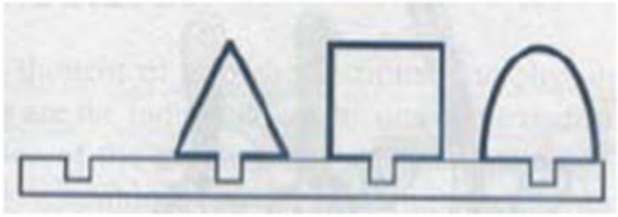




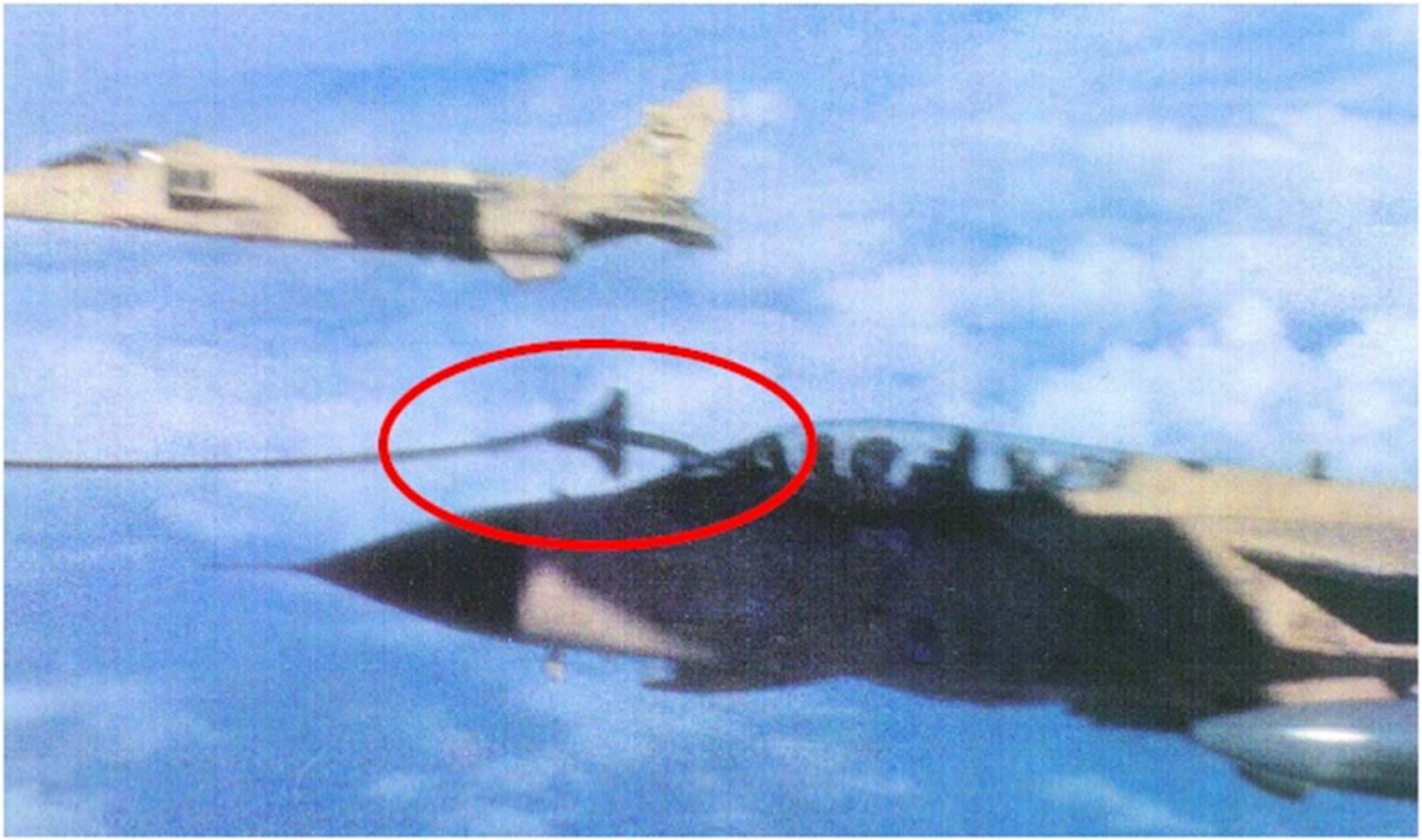








Example: Flight Refuelling Probe



Only in Japan!

….. What's this one about?

Why do new products flop?

- 28% - the better mousetrap that nobody wanted
- 24% the “me too” product that offered no advantage
- 15% - competitive response
- 13% - technical “dog”
- 13% - cost crunch
- 7% - plain and simple ignorance

From Rick Berg, Katz School of Business, UPitt

Edison

- 독서가이며 속독, 뛰어난 기억력에 의한 폭넓은 지식의 소유자.
- 대학교육 등기존의 교육이나 상식을 경시했고 현장교육을 중시했다.
- 왕성한 호기심이나 개척정신과 동시에 집착심, 대항심이 강하고 노력하는 사람.
- 사물을 전체로서 보려는 발상법, 치밀하게 관찰하며 숙고하여 상호관련을 이해한다.
- 장래를 내다보는 선견력이 있으며 사회시스템의 변화를 예측하고 준비한다.
- 발명테마를 선택하는 안목이 뛰어나며, 복수의 프로젝트를 동시에 진행시킨다.