

PHILIPS



Stysteem en Regeltechniek FMT / Mechatronica

Deel 1: Inleidende verkenning

Blok 1: Inleiding

Gert van Schothorst

Philips Centre for Technical Training (CTT)
Philips Centre for Industrial Technology (CFT)
Hogeschool van Utrecht - PTGroep

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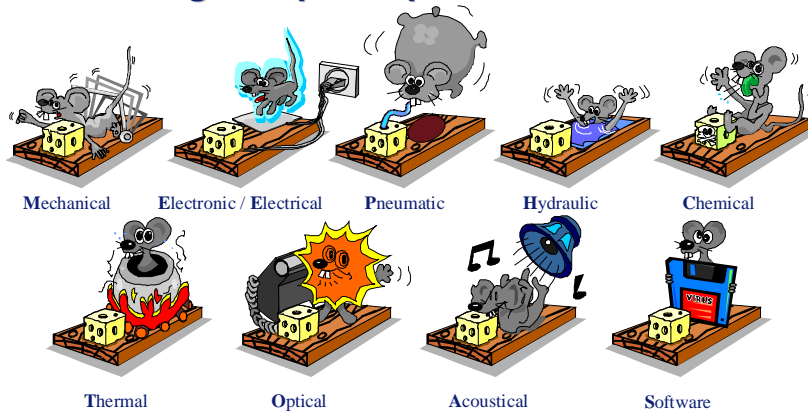
Cursus Stysteem en Regeltechniek Overzicht

- Deel 1 **Blok 1. Inleiding**
Wo. 14-04 Blok 2. Basisprincipes modelvorming massa-veersystemen
Blok 3. De regelaar als veer-demper combinatie
- Deel 2 **Basisbegrippen regeltechniek**
Wo. 21-04
- Deel 3 **Vervolg regeltechniek**
Wo. 28-04
- Deel 4 **Stabiliteit van regelsystemen**
Wo. 12-05
- Deel 5 **Toepassing: PID regelaarontwerp**
Wo. 19-05
- Deel 6 **Extra regeltechniek**
Wo. 26-05

What is a Mechatronic System?



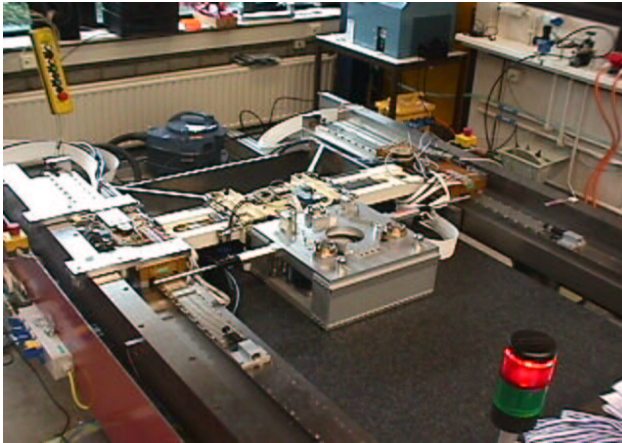
Mechatronics: Combining disciplines provides better solutions



- **Know all modern technologies and their applications**
- **Be able to work out *system solutions***

Mechatronic Systems – some examples

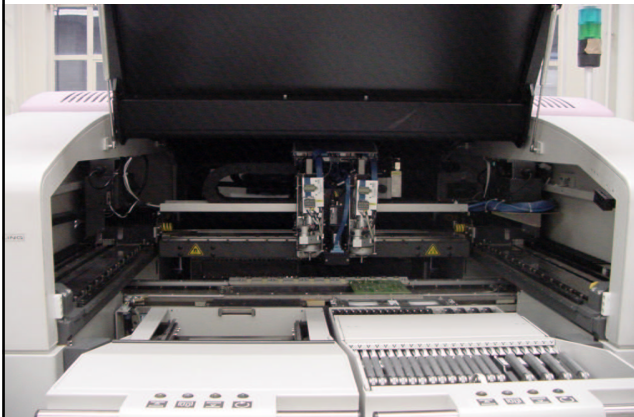
ASML application



- H-drive for wafer stage
- LIMMS drives
- Air bearings
- Ceramic beam
- 3 control axes

Mechatronic Systems – some examples

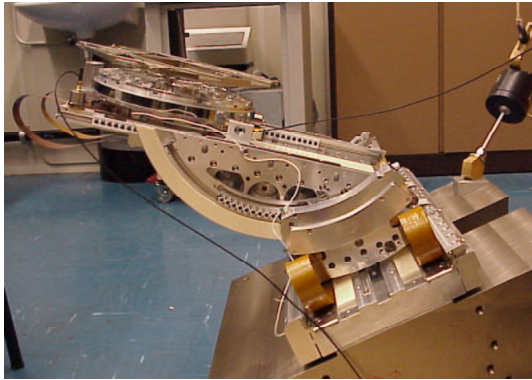
Assembléon application



- H-drive for ACM
- LIMMS drives
- Roller bearings
- Vision system
- 3 control axes
- Additional Phi-z

Mechatronic Systems – some examples

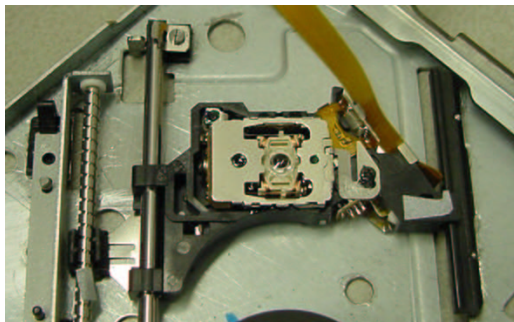
FEI application



- 300mm stage for SEM
- Nanomotion piezo drives
- Roller bearings
- Vacuum operation
- 5 control axes

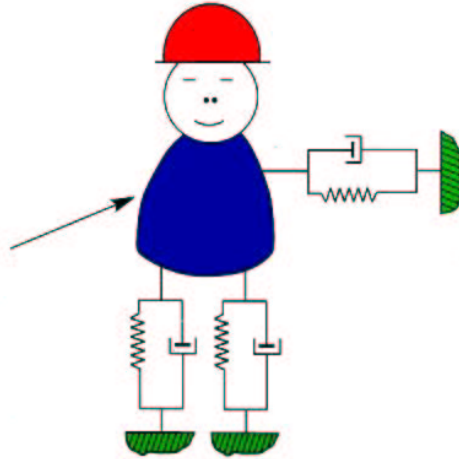
Mechatronic Systems – some examples

Philips Optical Storage (POS) application

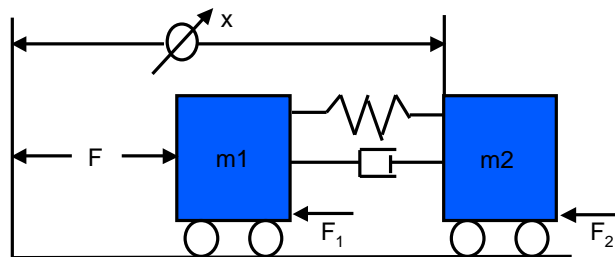


- CD / DVD drive
- Lorentz actuators
- Flexible hinge guiding
- 2 control axes

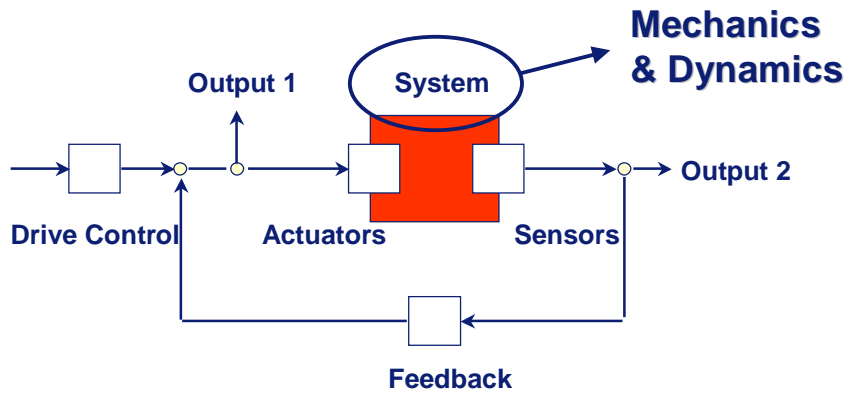
Mechanics & Dynamics



Mechanics & Dynamics



The role of control



**Mechatronic System Approach:
Active elements, control of stiffness and damping**

Summary

- Mechatronic Systems (Approach)
- Mechanics & Dynamics
- The Role of Control

