

ISTITUTO  
DI TECNOLOGIE DELLA  
COMUNICAZIONE,  
DELL'INFORMAZIONE  
E DELLA  
PERCEZIONE



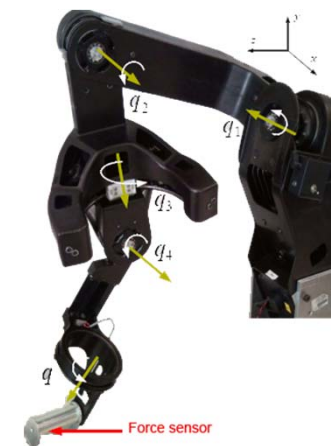
**PERCRO** Perceptual  
Robotics Laboratory

Scuola Superiore  
Sant'Anna

## Elementi di FEM

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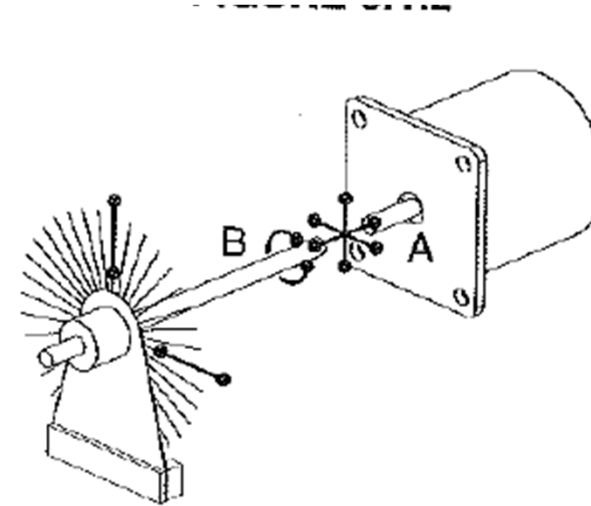
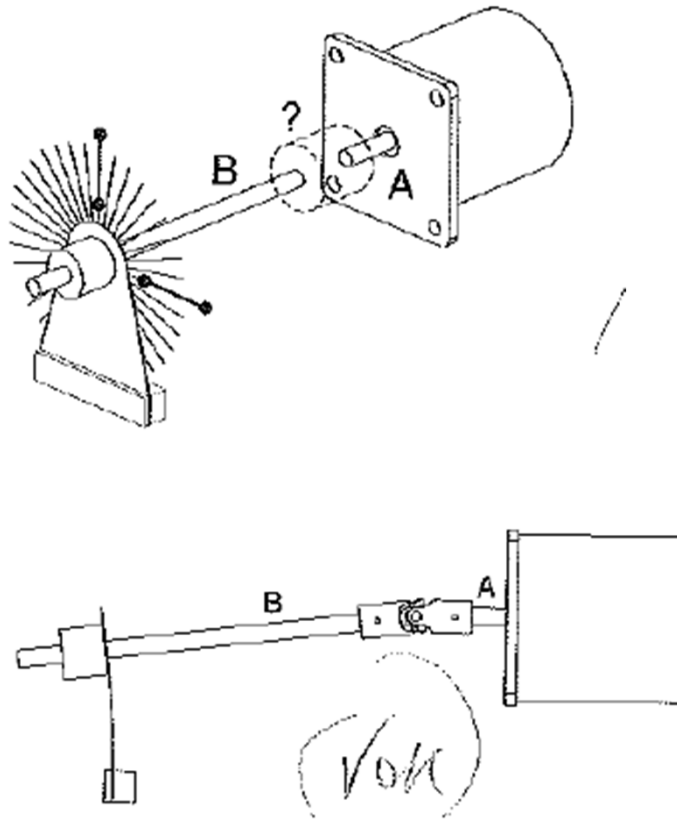
*PERCRO, TeCIP Institute, Scuola Superiore Sant'Anna*



- We analyzed in this section very briefly what are the main aspects of overconstraint in force transmission and mechanisms
- C-lines (constraint –lines) could be used to conduct a simple analysis for mechanism
- We will analyze in particular here the case of joint transmission

# Le trasmissioni a vite / giunti di trasmissione e collegamento

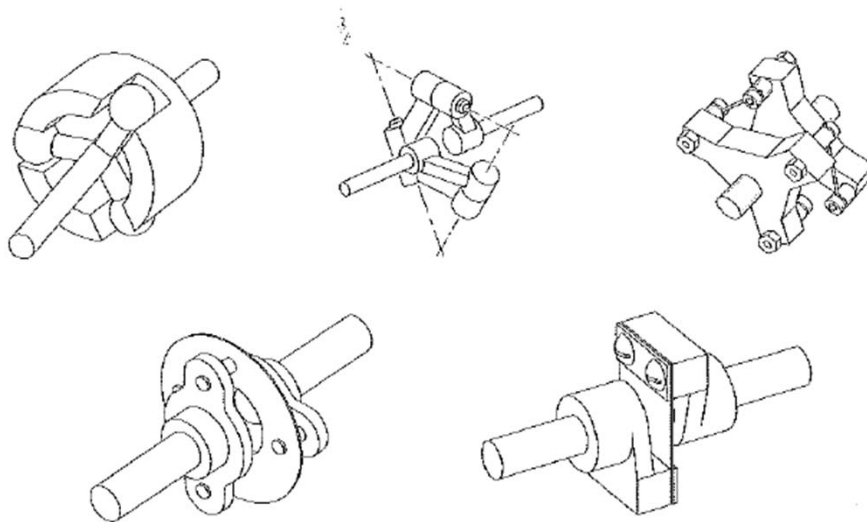
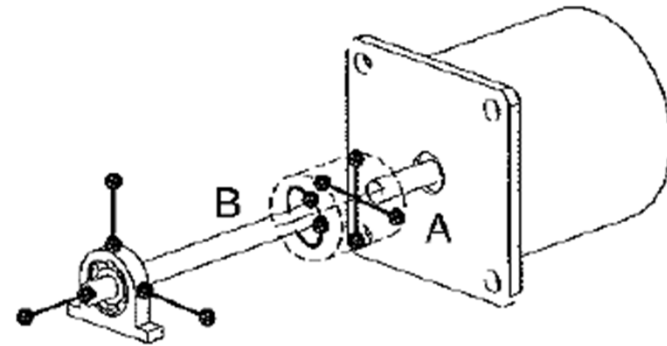
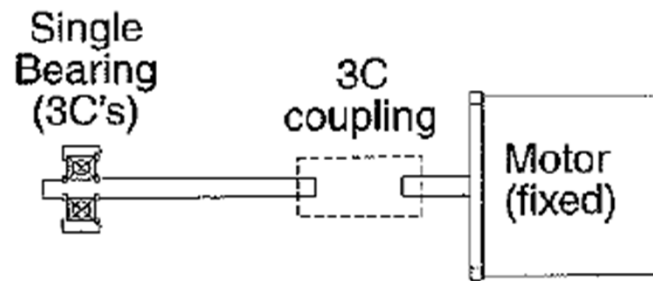
- Collegare supporto con motore ad albero



**Il giunto di Cardano è la soluzione**

# Con singolo cuscinetto

- In questo caso



# 2C coupling

- Analisi di un case study

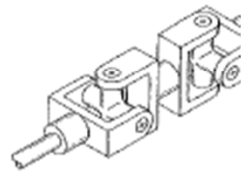


FIGURE 5.3.1

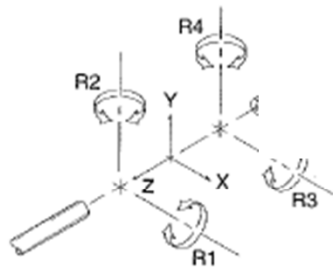
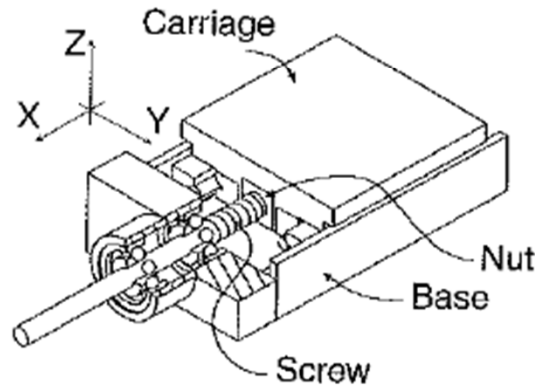
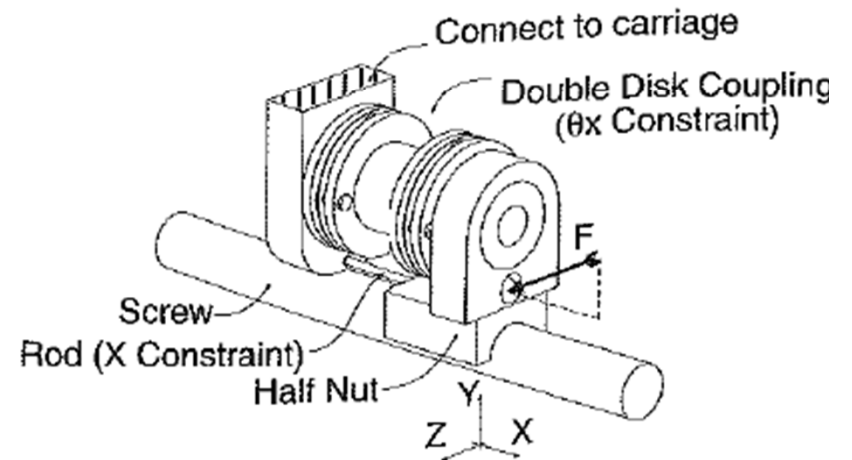
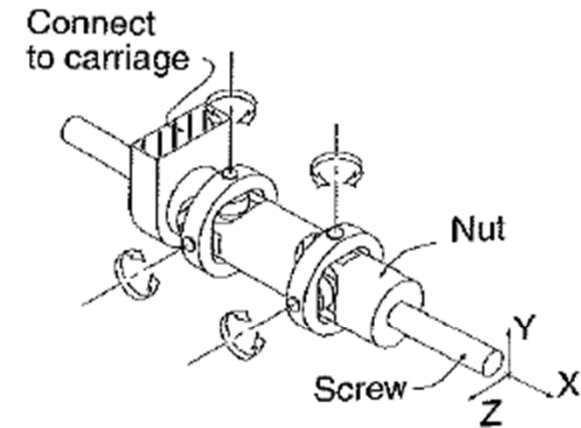


FIGURE 5.3.2



# The ball screw actuator

- The ball screw actuator is a typical transmission that is employed to transfer the force from a rotary motor to a sliding load
- We will conduct a simple analysis to study the overconstraint in this kind of connection and what are the implications

