Introduction to MODERN robotics




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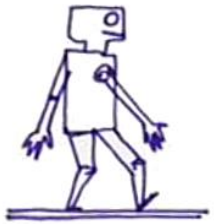

General organization

- J1: fundamentals
  - Geometry, Kinematics
  - Statis optimization, quadratic programs
  - Walking using template models

- J2: dynamics and simulation
  - Dynamics and Lagrangian multipliers
  - Collision detection and simulation

General organization

- J3: optimal control and reinforcement learning
  - Basis of optimal control
  - Whole-body trajectory optimization
  - Reinforcement learning: main algorithms
- J4: RL practicals (morning)
  - Locomotion of a quadruped robot
- J4: mechatronics (afternoon)
  - OMODRI and co-design