

# Humanoid Robotics

## Master-Seminar 2010

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11.02.2010

- 1 Introduction
- 2 Formalities
- 3 Seminar topics
- 4 Questions

Seminar advisors are:

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Further contact details:

- Phone: 089.289.18100
- Room: 03.07.060

Note: This presentation can be downloaded from the seminar web-page:  
<http://www6.in.tum.de/Main/TeachingSs2010HumanoidRobotics>

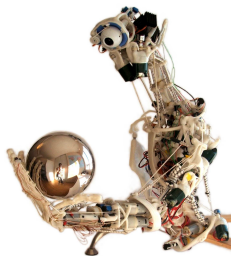
# Humanoid Robots



HRP3 [AIST - Japan]



NimbRo [Uni Freiburg]

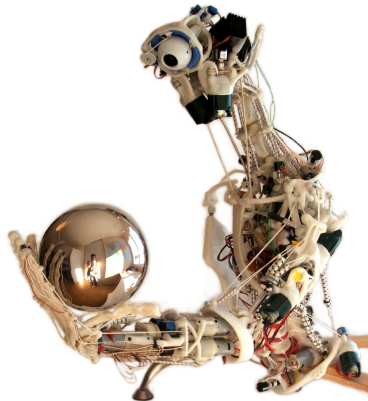


ECCE [TUM]



Asimo [Honda]

- EU funded project with 5 partners
- Anthropomimetic Robot:
  - copy inner structures of humans
  - create robot that functions like a human
- We work on other topics:
  - architecture & integration
  - electronics development
  - low-level motor control
  - simulation
  - robot control



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Required registration information:

- first name, surname
- date of birth
- matriculation number
- E-Mail address
- course of studies
- SS 2010 term
- preferred topic, possible alternative

## Seminar procedure:

- Oral presentation: 30 min + 10 min discussion
- Slides either as PDF or Power Point
- Seminar paper: 10-15 pages (preferably  $\LaTeX$ )
- Language: English or German  
(paper and presentation in same language)
- Attendance of all presentations is required
- Presentation preparation guideline:  
<http://www.mmk.ei.tum.de/lehre/hs/demovortragumdruck.pdf>
- Unless needed no literature is provided
- Advisors are available for questions



- Important dates:
  - 1 week before presentation: hand-in of slides
  - 2 weeks before presentation: hand-in of paper
  - 3 weeks before presentation: hand-in of paper outline
- Presentation dates will be published on the seminar web-page.  
Possible dates are:
  - Tuesdays: 14:00 - 16:00
  - Thursdays: 14:00 - 16:00

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No.	Topic	Presenter	Advisor
1	HR - Approaches & Concepts	(available)	Wittmeier
2	Cognitive Architectures for HR	Vladimir Haltakov	Jäntschi
3	Elastic Actuators - Design & Control	Nico Mansfeld	Jäntschi
4	Motor Control - Humans vs. Robots	Georg Barbieri	Wittmeier
5	Proprioceptive Sensors	(available)	Jäntschi
5	Using Internal Models for RC	(available)	Wittmeier
7	Machine Learning in HR Control	Christian Schmalzer	Wittmeier
8	Visual Servoing in HR Control	(available)	Jäntschi
9	Humanoid Walking Machines	Karsten Bertulies	Jäntschi
10	RoboCub - Humanoid League	(available)	Wittmeier

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Any questions?