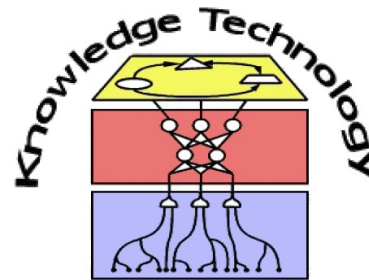


Towards an Autonomous Recharging of Nao

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April 1st, 2011

Focus of Centre for Knowledge Technology

- Motivation
 - Bio-inspired



Study and assistance
of humans



Development of better
computational models

RobotDoc

Robotics for Development of Cognition

- The RobotDoc Collegium
 - Training program on developmental cognitive robotics
 - 13 will be PhD students (Early Career Researchers)
 - Topics: Language, Sensory-motor control, Affective modulation of behavior ...



<http://robotdoc.org/>



Artificial Affective- and Self-Protective Actions

RobotDoC Task 4.3

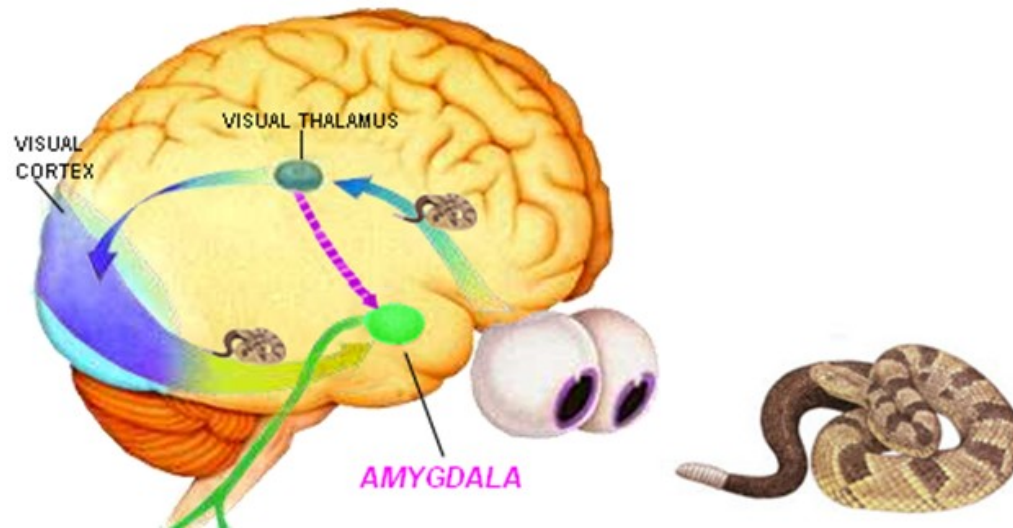
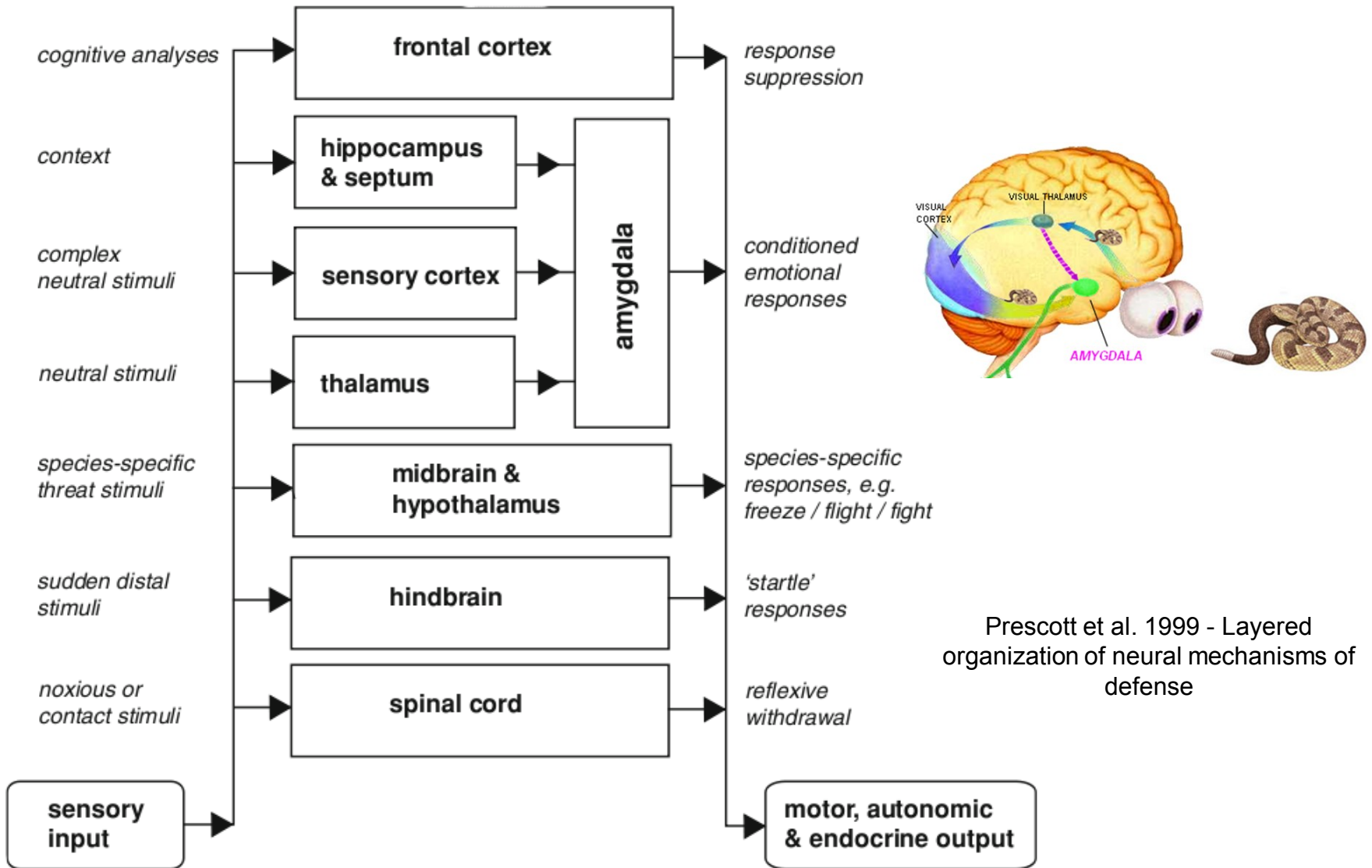


Illustration based on LeDoux (1994) Emotion, Memory, and the Brain. Scientific American.

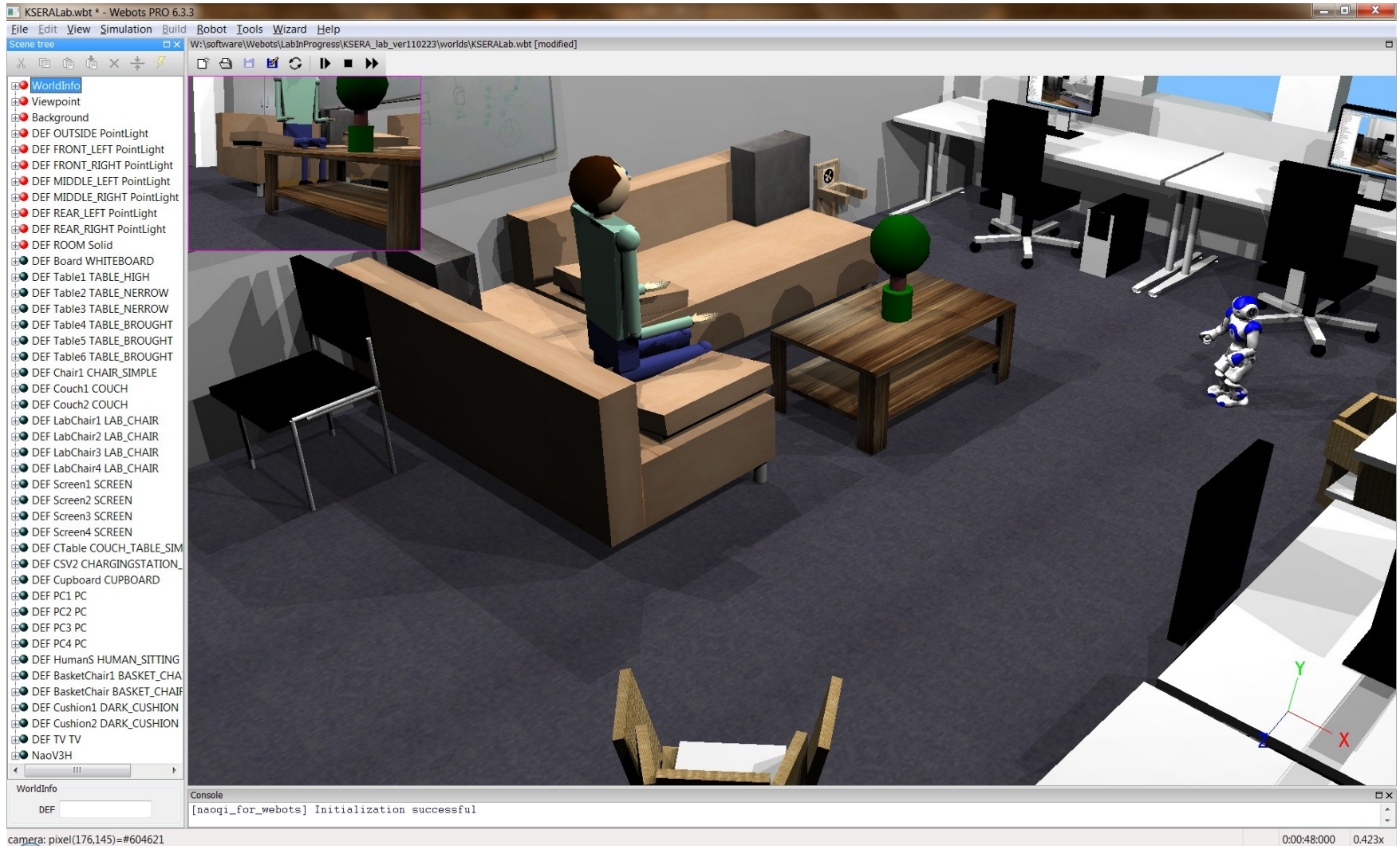
Artificial Affective- and Self-Protective Actions

RobotDoC Task 4.3



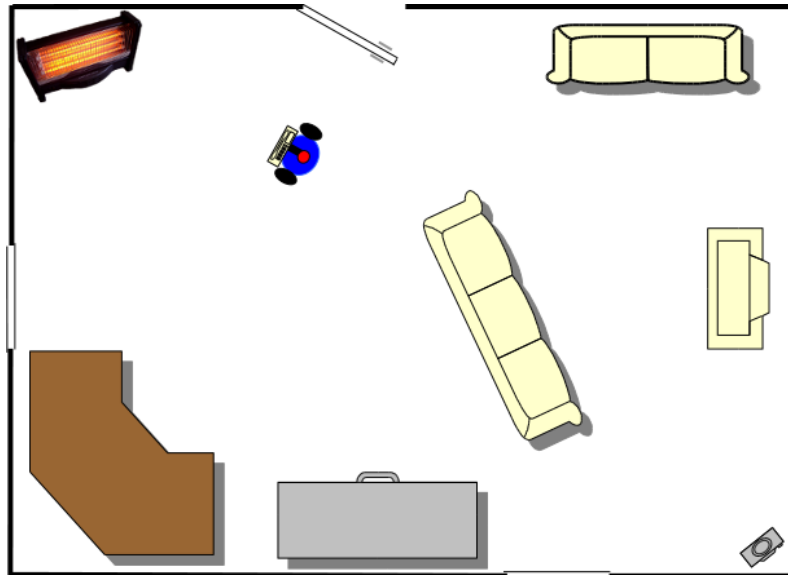
Prescott et al. 1999 - Layered organization of neural mechanisms of defense

Test scenario – Smart home environment



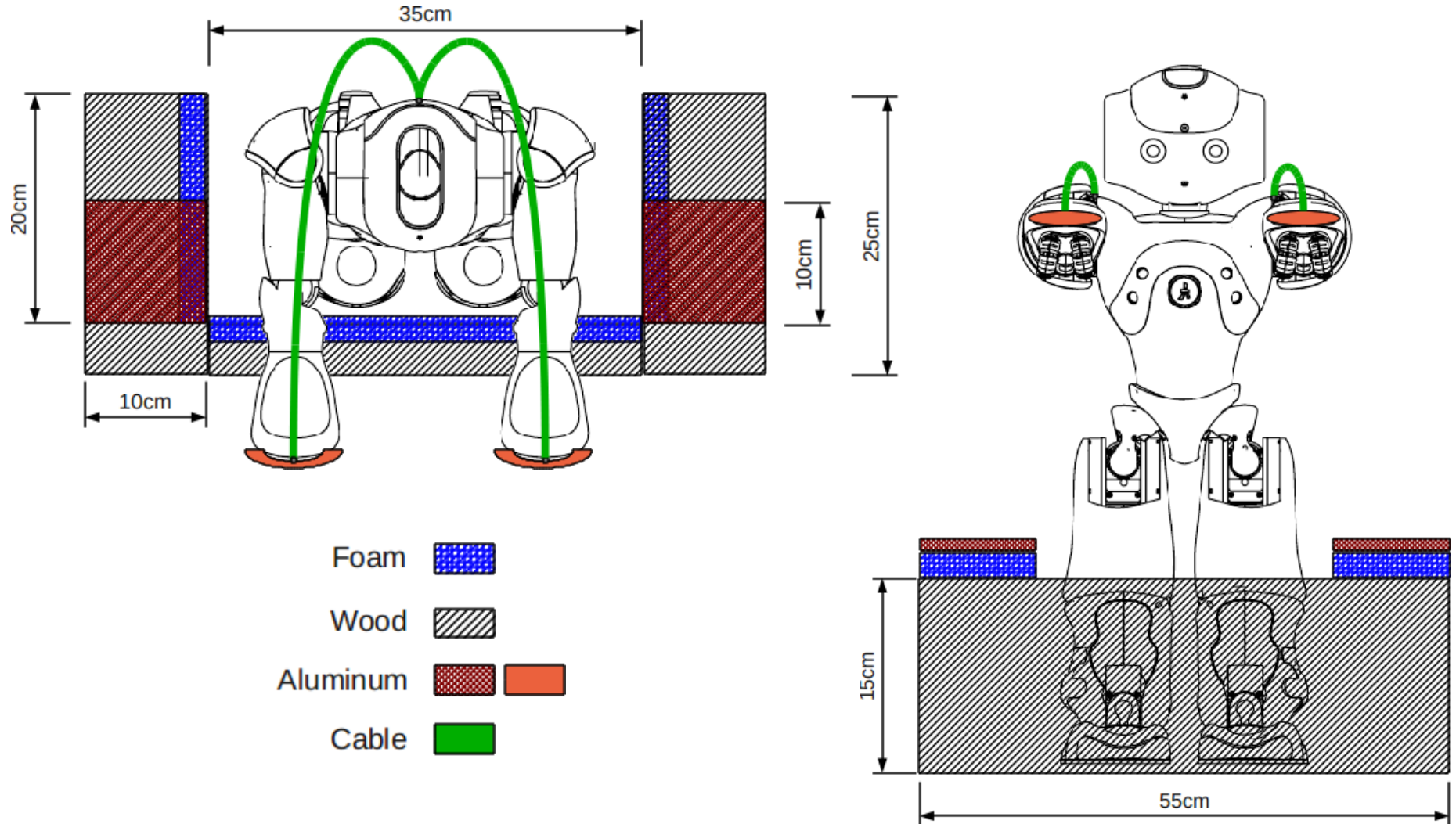
Autonomous recharging of Nao

Test scenario – Smart home environment

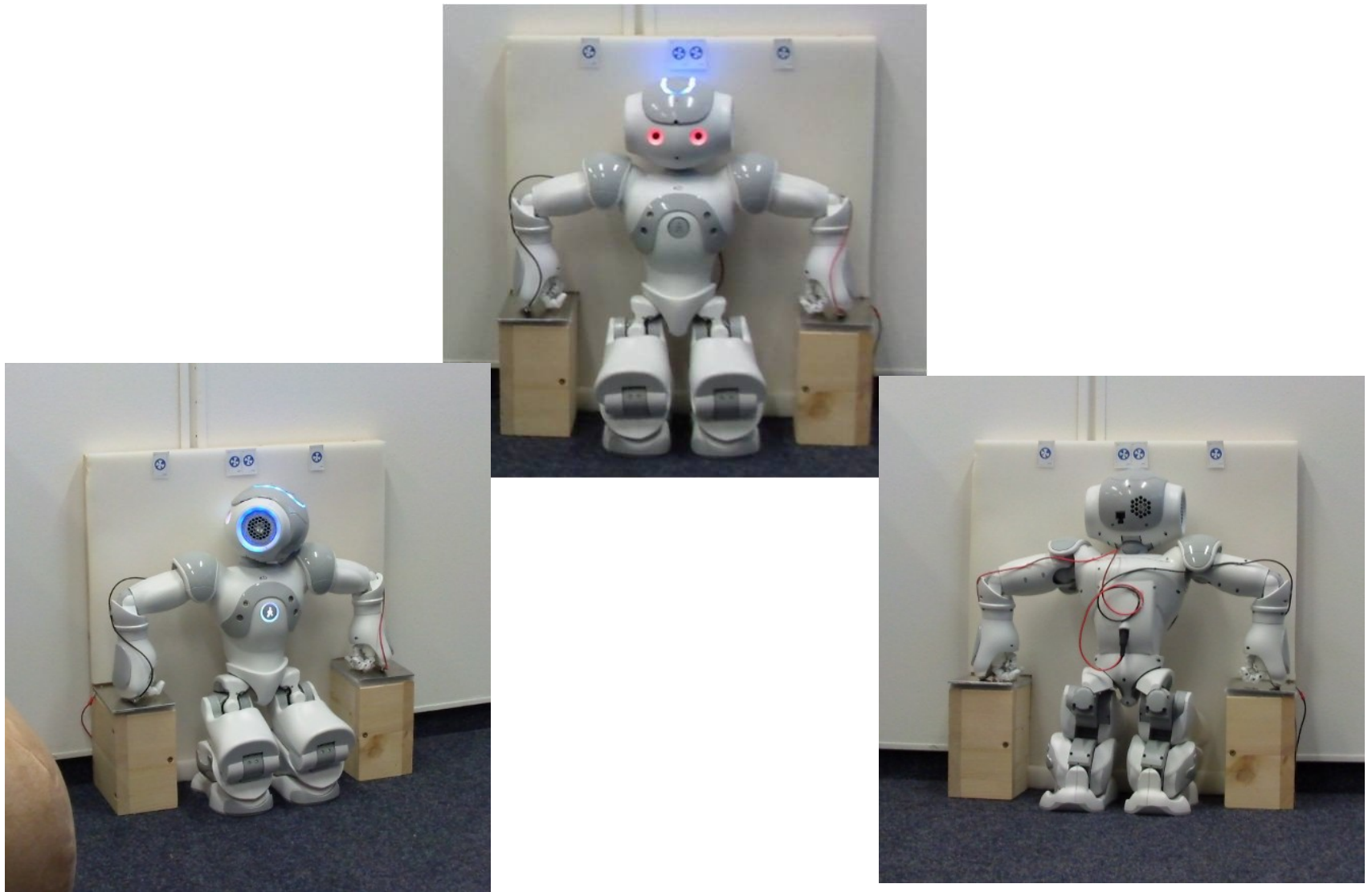


Aversive: Heater, door, chairs, etc.
Appetitive: Charging station, fan, etc.

Docking and Recharging: version 1

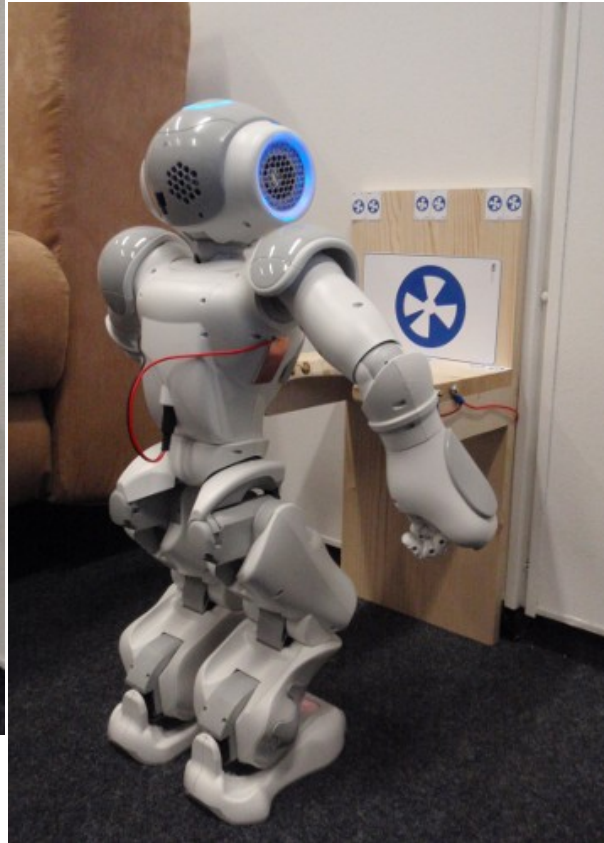


Docking and Recharging: Version 1



Autonomous recharging of Nao

Docking and Recharging: Version 2

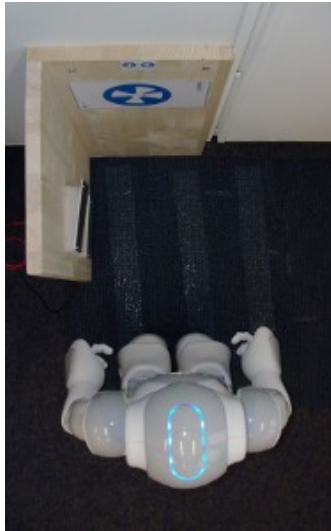


Autonomous recharging of Nao

Docking and Recharging: Version 3



Docking and Recharging: Version 3



Docking and Recharging: Version 3



Autonomous recharging of Nao

Questions / Discussion / Commentaries



**Thank you for
your
attention!**

Any questions?