The LIRA-Lab, Laboratory for Integrated Advanced Robotics, operates in the Department of Communication, Computer and Systems Science (DIST) of the University of Genova.

The main research theme is artificial vision and sensorimotor coordination from a computational neuroscience perspective. The goal is to understand how the brain of living systems transforms sensory input into motor and cognitive functions by implementing physical models of sensorimotor behaviors.

Research activity is carried out around a number of experimental setups allowing experimentation with humanoid robots as well as basic research on artificial vision and robot control.

LIRA-Lab is funded by National and International agencies and industries within Collaborative research project.

More information at:

http://www.liralab.it
RobotCub is a 5 year-long project funded by the European Commission through Unit E5 "Cognition". RobotCub has the twin goals of (1) creating an open and freely-available humanoid platform — the iCub — for research in embodied cognition, and (2) advancing our understanding of cognitive systems by exploiting this platform in the study of cognitive development.

The iCub will have a physical size and form similar to that of a two year-old child and will achieve its cognitive capabilities through ontogenetic co-development with its environment: by interactive exploration, manipulation, and imitation. iCub will be designed as a freely-available open system which can be shared by scientists as a common tool for research in cognitive systems.

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MIRROR is about the study of sensorimotor development in humans and in particular how visual and motor representations are learned and used to control complex motor acts such as grasping. We explore this by designing and performing behavioral experiments on infants at different ages.

MIRROR is also about implementing artifacts shaped as humanoid robots which learn to perform and recognize actions.

Lastly, MIRROR is about the idea of studying the representation of grasping within the framework of the so called "mirror neurons".

For more information:
 http://www.liralab.it/mirror

Together with:
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