

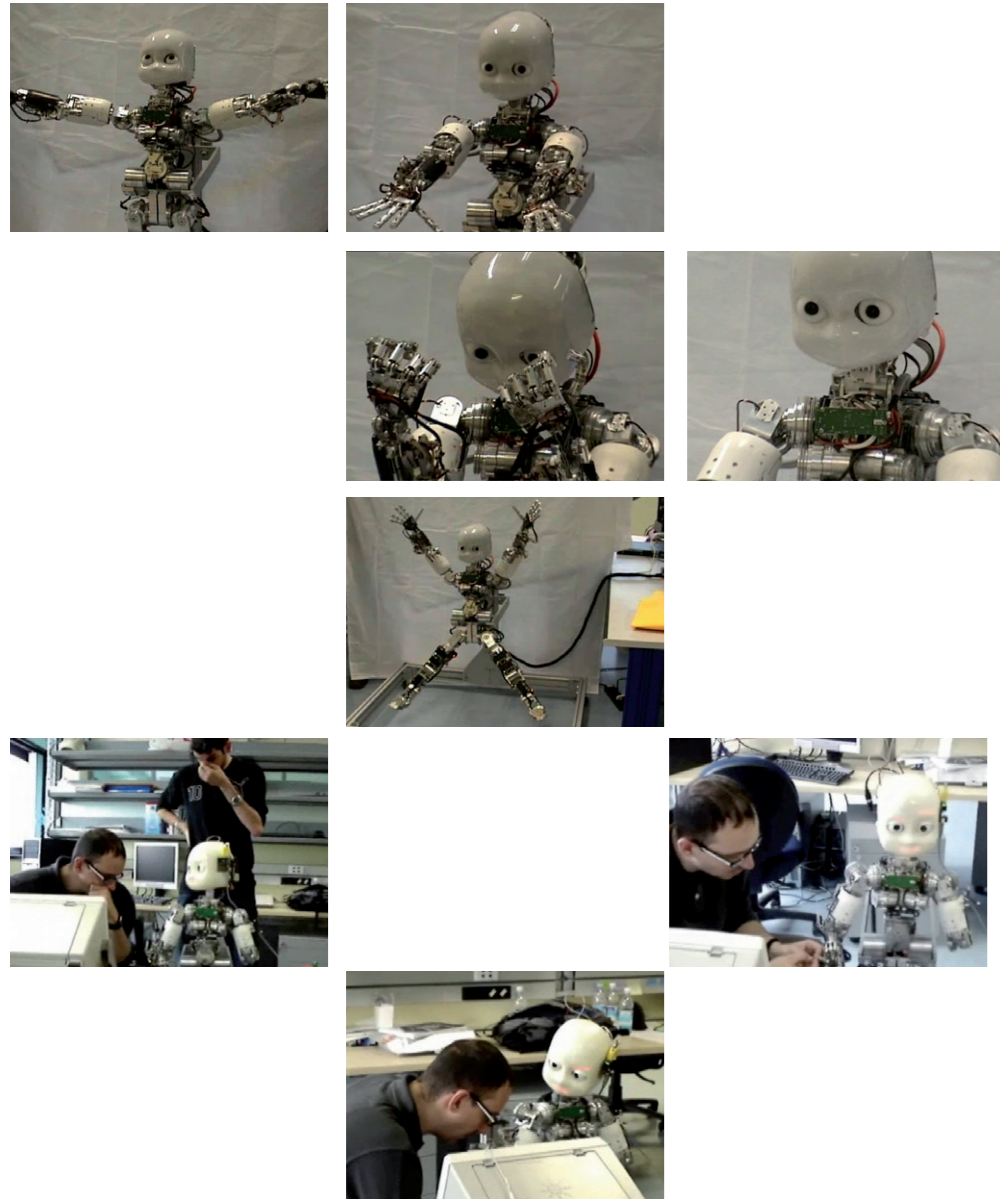
I am one of the results of the IST-FP6-004370 project RobotCub

that's me

robotcub project participants



iCub



robotcub is an eu-funded project in the area of cognitive systems, interaction and robotics. robotcub has the twin goals of:

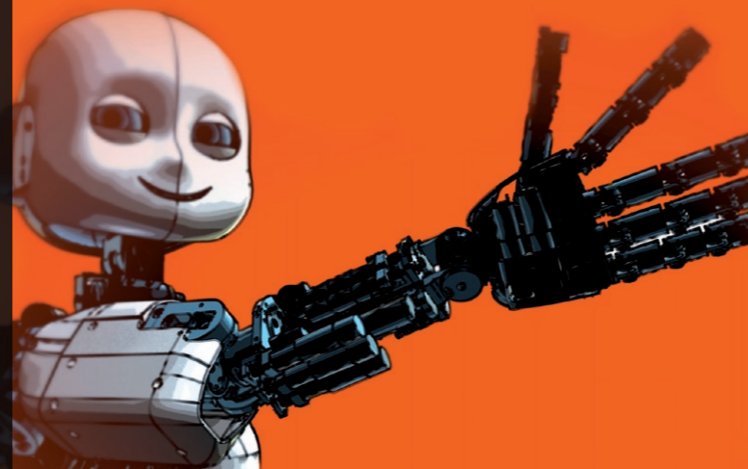
- (1) creating a new advanced humanoid robot - the icub - to support community research on embodied cognition.
- (2) advancing our understanding of several key issues in cognition by exploiting the icub platform in the investigation of cognitive capabilities.

icub is a full-fledged humanoid robot "child" with sophisticate motor skills and several sources of sensory information including vision, sound, touch, proprioception, and vestibular.

| Name | Main expertise in project | contact |
|---|---|---|
| university of genova - LIAA-Lab, dipartimento di informatica, sistemistica e telematica - genova - italy | cognitive humanoid robotics vision and manipulation | David vernon giulio sandini giorgio metta |
| Italian Institute of Technology - genova - Italy | robotics, cognitive architecture | giulio sandini giorgio metta |
| scuola superiore s. Anna - ARTS Lab - Pisa - Italy | robotics and mechatronics manipulation hardware | Paolo Dario |
| university of uppsala - department of psychology uppsala - sweden | cognitive development of manipulation skills in babies | claes von Hofsten |
| university of zurich - Artificial Intelligence Lab, department of information technology zurich - switzerland | cognitive robotics audition and touch | Rolf Pfeifer |
| university of ferrara - department of biomedical science - human physiology -ferrara - Italy | physiology of manipulation control in humans. | Luciano Fadiga |
| university of Hertfordshire - department of computer science - united kingdom | cognitive behavior and interaction | Kerstin Dautenhahn |
| IST Lisbon - computer vision and robotics Lab Lisbon - Portugal | cognitive robotics eye/head coordination | Jose Santos-Victor |
| university of sheffield - automatic control and systems engineering dept. | robotics - control systems | John Grey |
| ecole polytechnique federal de lausanne - autonomous systems Lab Lausanne - switzerland | cognitive behavior and interaction, locomotion | Aude Billard |
| teleroobot s.r.l. - genova - Italy | mechanical design and prototype manufacture | Francesco Becchi |

The project research activities were discussed and planned also with the help of an international board composed of:

- Gordon Cheng,
- Juergen Konczak,
- Yasuo Kuniyoshi



Italian Institute of Technology
robotics brain and cognitive sciences
via Morego, 30
16163 genova - Italy

For more information, please contact:
giulio sandini - giuliosandini@iit.it
giorgio metta - pasaelir@iit.it
David vernon - david@vernnon.eu

design: orange srl - ee - www.o-range.info

italian institute of technology
robotics brain and cognitive sciences
via Morego, 30
16163 genova - Italy



who am i?

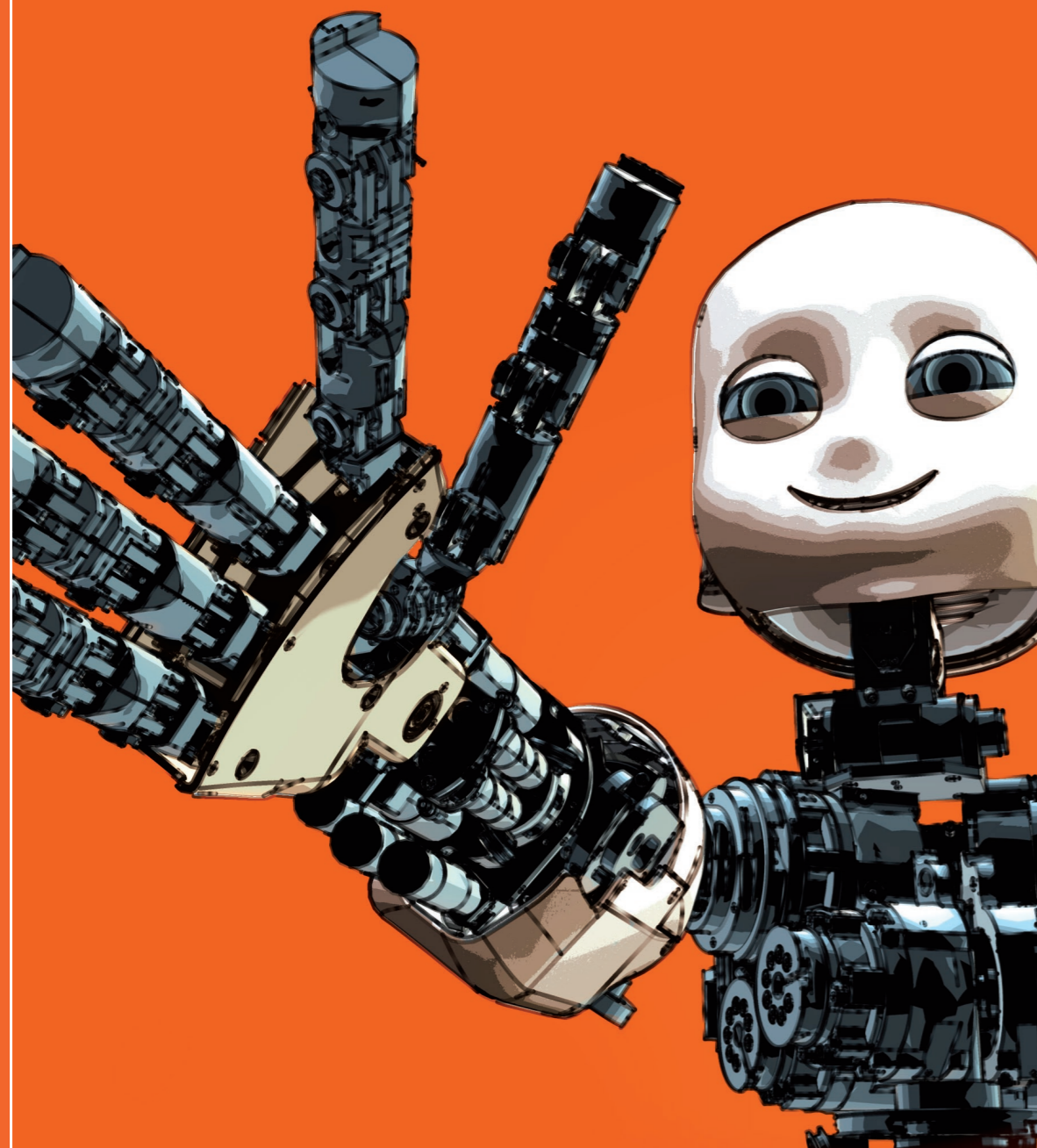
I am a humanoid robot, my name is iCub. I am able to crawl on all fours and sit up. My hands have many joints and I am learning to manipulate objects very skillfully (like a man-cub). My head and eyes are fully articulated and I can direct my attention to things that I like. I can also listen with my ears and feel with my fingertips and I have a sense of balance. At the moment I can do simple things but my human friends are teaching me and my brothers something new every day (we are becoming an international family!).



53 joints
mainly
distributed in
the upper part
of the body

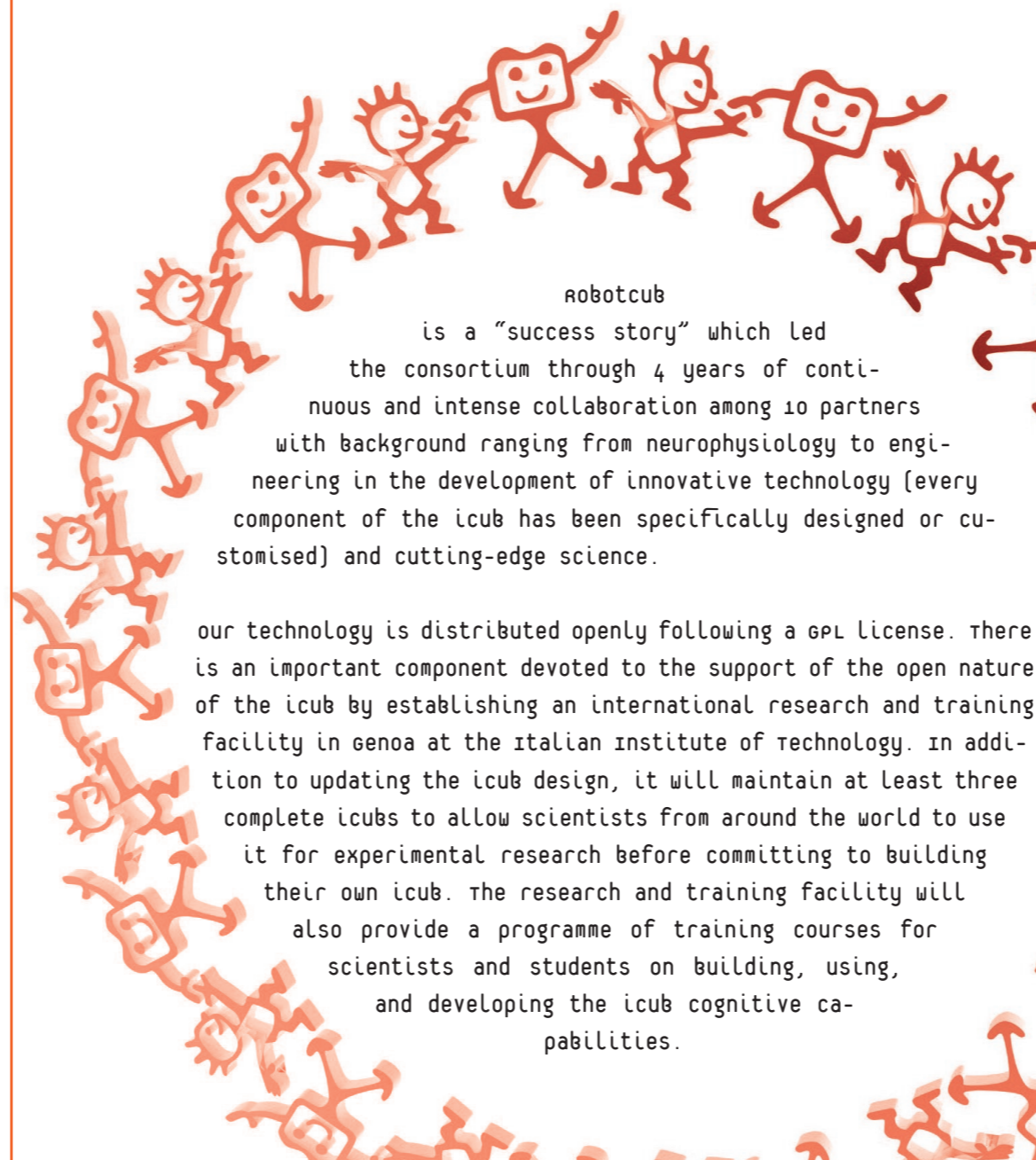
104 cm tall in
only 22kg of
weight

the size of a
three and a
half years old
child



iCUB

“open source”



robotcub
is a “success story” which led
the consortium through 4 years of conti-
nuous and intense collaboration among 10 partners
with background ranging from neurophysiology to engi-
neering in the development of innovative technology (every
component of the iCub has been specifically designed or cu-
stomised) and cutting-edge science.

our technology is distributed openly following a GPL license. There
is an important component devoted to the support of the open nature
of the iCub by establishing an international research and training
facility in Genoa at the Italian Institute of Technology. In addi-
tion to updating the iCub design, it will maintain at least three
complete iCubs to allow scientists from around the world to use
it for experimental research before committing to building
their own iCub. The research and training facility will
also provide a programme of training courses for
scientists and students on building, using,
and developing the iCub cognitive ca-
pabilities.

“open call”



To help researchers
get their own copy of
the iCub, the RobotCub
project has launched
an open call.

Six successful propo-
sers have been awarded
with a complete iCub
“kit” free of charge.
These robots will be
available to research
centers in Europe. Ad-
ditional robots will
be built as part of
other IST FP7 projects
and we are negotiating
several requests also
from us and Japan.

The iCub middlewa-
re and, in general,
some of its technology
is now used worldwide
even outside the ori-
ginal domain of huma-
noid robotics. A live-
ly community of users
is actively contribu-
ting to the first com-
plete open source hu-
manoid design.