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Whole-Body Compliant Dynamical Contacts in Cognitive Humanoids

D1.2
Software for controlling of balancing and reaching with multiple contacts

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Abstract	This deliverable references the open-source software repositories, and corresponding documentation, developed under the CoDyCo project for the control of balancing and reaching with multiple contacts.
Keyword List:	CoDyCo, software, whole-body, postural control, balancing

Document Revision History

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1   Introduction

All software developed for the CoDyCo project, including modules for the control of balancing and reaching with multiple contacts, are available as open-source within the `codyco-superbuild` meta repository. Further details and freely available software downloads are available via github:
`https://github.com/robotology/codyco-superbuild`

Additional documentation is available via the icub wiki:
`http://wiki.icub.org/codyco/dox/html/index.html`

2   Software Modules

The `codyco-superbuild` meta repository aggregates the following projects:

- `codyco-commons`: A collection of functions and utilities used in the other projects

- `idyntree`: YARP-based Floating Base Robot Dynamics Library

- `paramHelp`: Library for simplifying the management of the parameters of YARP modules

- `wholebodyinterface`: C++ Interfaces to sensor measurements, state estimations, kinematic/dynamic model and actuators for a floating base robot

- `yarp-wholebodyinterface`: Implementation of the wholeBodyInterface for YARP robots

- `WBI-Toolbox`: Simulink Toolbox for rapid prototyping of Whole Body Robot Controllers

- `codyco-modules`: YARP modules and controllers developed within the CoDyCo project