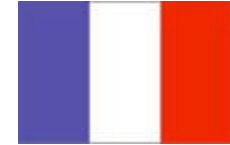




Project RODA



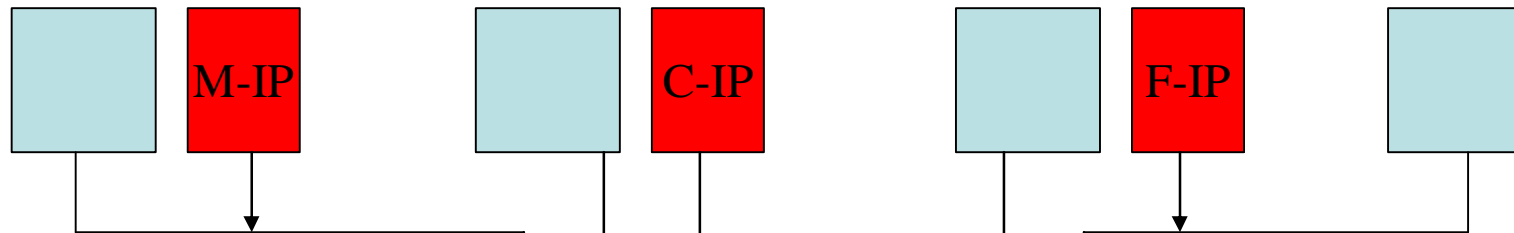
Robotics Design Automation

Mechanical specifications

Communications specifications

Functionnal Specifications (URBI)

Real-time Constraints



Advanced integrated modular robotics; modular design and modelling of new, versatile "plug-and-play" robot systems based on the development of open reference system architectures with standardised hardware (IP) and software building blocks.

Multi-domain Robot simulation

Multiobjective Optimization

RGEN





RODA



Work package	SP1	SP2
WP1 Mechatronics optimization	Joint Mechanical/electronics optimization	ME-IP Building blocks optimized through joint Mechanical and electronics interactions
WP2 Mechanical/ Communications optimization	Joint Mechanical/communications Optimization BPAN	MC-IP Building blocks optimized through joint Mechanical and communications interactions
WP3 Communications/electronics optimization	Joint Communications/electronics optimization	EC-IP Building blocks optimized through joint electronics and communications interactions
WP4 Mechatronics/communications optimization	Joint Mechatronics/electronics optimization	MEC-IP Building blocks optimized through joint mechanical, electronics and communications interactions
WP5 Synthesis	Robot Synthesis from specifications	URBI to SystemC translation
		URBI multiprocessor on chip generation
		URBI Multiprocessor Design Space Exploration with Direct Execution (FPGA)
		URBI Standard Benchmarks (D.Filliat /JC.Baillie Project)

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