

CARLoS Partners

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Project Coordination



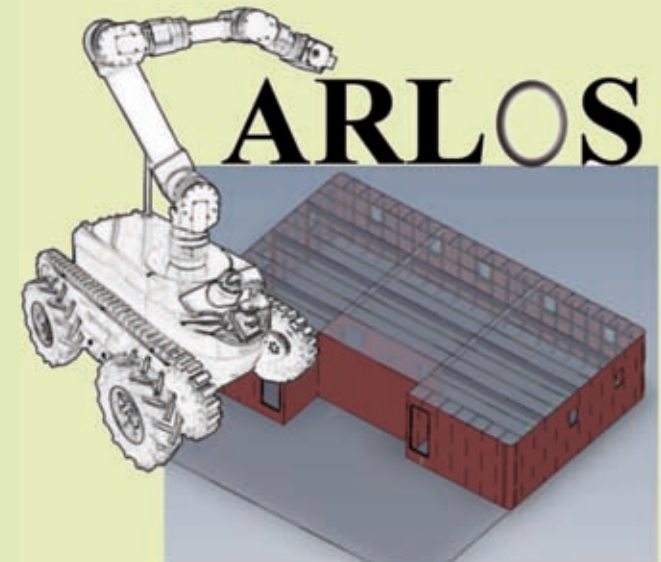
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Cooperative Robot for Large Spaces Manufacturing



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CARLoS will address Research and Innovation for SMEs (ROBOTNIK, CAT PROGETTI, DELTAMATIC) working in different sectors, namely: development of mobile manipulators (ROBOTNIK), development of sensing and robot solutions for different industrial applications (CAT PROGETTI), integration of robot and automation systems for manufacturing (DELTAMATIC).

SHIPYARDS JOSÉ VALIÑA and ATENASA are SMEs with a long experience in shipbuilding and outfitting services. They support the technology developers in the definition of the functional specification and the scenarios for robot testing and validation.

The SMEs will commercially exploit the project results obtained by the 3 RTD performer partners (AIMEN, AAU, INESC).

Project duration:
2 years

Starting project date:
September 1st, 2013

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Cooperative Robot for Large Spaces manufacturing - CARLoS

CARLoS project aims to apply recent advances in cooperative mobile robotics, to a representative industrial scenario in shipyards. CARLoS robot will be built using off-the-shelf technology under a modular approach. The final prototype will be demonstrated as a robot co-worker for outfitting operations (stud welding and marking) inside blocks of ship superstructures. Currently, there is no automated solution to these tasks.

CARLoS project will contribute to strength technology and market position of:

- European SMEs that develop, supply, and integrate mechatronic, sensing, and electronic technologies for industrial applications.
- European SMEs providers of outfitting services to shipyards, as well as small shipyards.



Main features of CARLoS robot are:

- High mobility inside ship blocks
- Semi-autonomous decision-making on the work to do
- Autonomous stud welding capability
- Autonomous pre-outfitting marking capability
- Highly usable and easy controlled by a shipyard worker
- Skills-based programming

