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The European Coordination Hub for Open Robotics Development

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Experiments Call II Kick-Off

Experiment Presentations

Palma de Mallorca, Spain

3 May, 2016

Bristol Robotics Laboratory

BLUE OCEAN ROBOTICS
- for humans

RUROBOTS
Cognitive Science at Work

SEVENTH FRAMEWORK PROGRAMME

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HyQ-REAL Experiment

Istituto Italiano di Tecnologia (IIT)

Moog Controls Ltd

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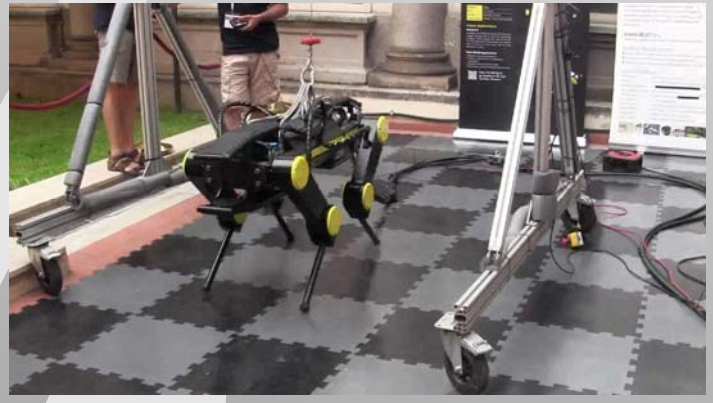
represented by **Michele Focchi** (IIT)

Brief Experiment Description

IIT's HyQ2Max robot from the lab to the real world

- Ruggedization of machine, on-board power
- Compact, efficient Integrated Servo Actuators
- Joystick control, self-righting after a fall
- Field tests & demonstrations to stakeholders



Novelty/Objectives

- **Integrated Servo Actuator with additive manufactured Titanium body and efficient valve (TRL 4 to 9)**

- Development of compact power pack for autonomy (gasoline-powered for hydraulic+electric power)
- Development of self-righting motions from different starting postures (after a fall)
- Ruggedization of HyQ2Max to make it dust and splash-water proof, increased reliability
- Development of intuitive operator interface, including joystick control

Impact

- **New products on the market: Integrated Servo Actuators (TRL 4 to 9)**

- 2 new patents applications are planned
- Integrated Servo Actuator technology will be applied to prosthetics, motorsport, nuclear decommissioning and oil exploration machines
- IIT will create a spin-off to sell quadruped robots and related technologies
- Airspace safety and reliability applied to the field of robotics