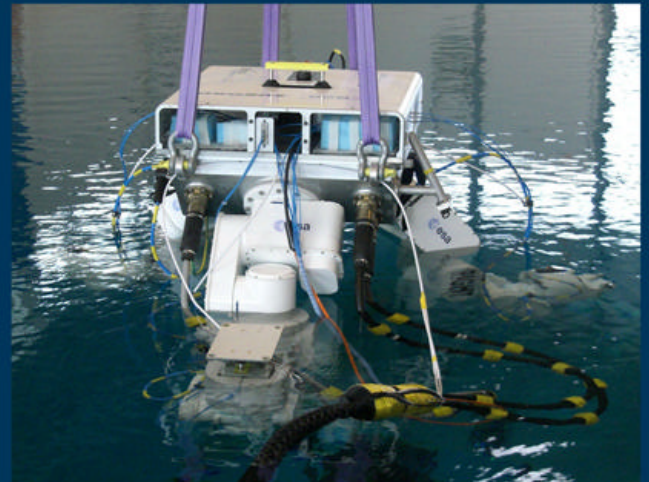


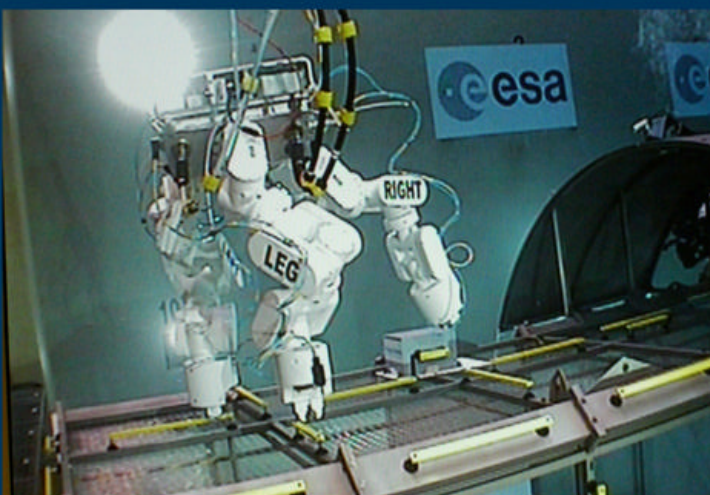
## eurobot wet model

An important research activity in the field of underwater robotics has been performed in the period 2004-2006 for Alcatel Alenia Space (now Thales Alenia Space) within a project funded by ESA (European Space Agency).



The goal of the project was the realization of EWM (Eurobot Wet Model), an in-water test-bed of the Eurobot system which will be used on the ISS (International Space Station) as a robot servant for performing Extra-Vehicular Activities.

Graal Tech's main role has been designing and realizing the three 7 d.o.f.'s underwater manipulators of the system. EWM was conceived for performing human-robot cooperative tasks in which astronauts physically interact with the robot in a pool.



The main challenge was designing every mechanical body of the three robotic arms as neutrally buoyant and balanced by itself, for replicating as much as possible the absence of gravity condition.

In the same project, in addition to the mechatronic design and realization of the robotic arms, Graal Tech was also engaged for the algorithmic design, modelling and simulation of the robot control system.

