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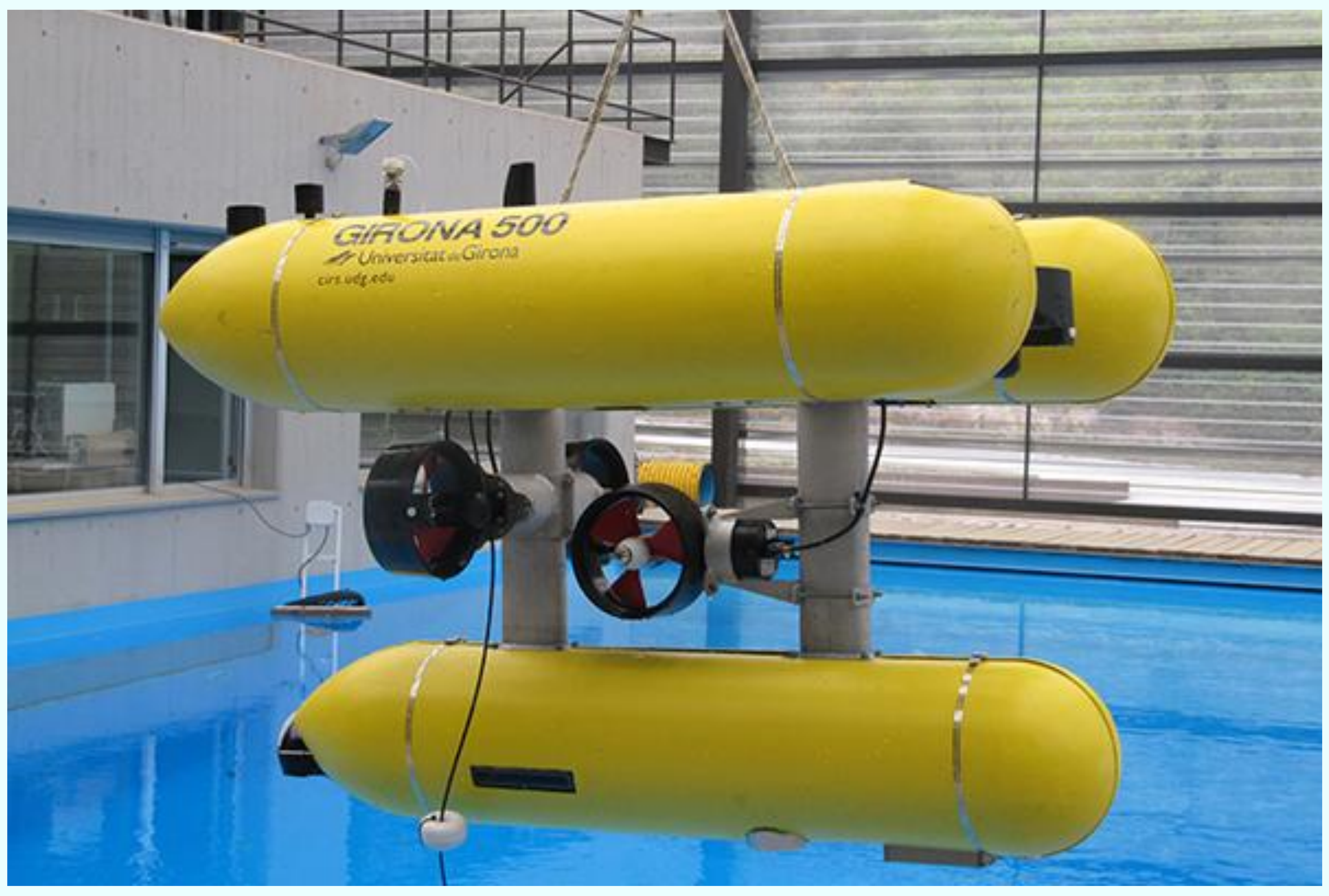
Gesture Based HMI for Intervention Underwater Robots

Situation

- The ocean is very important. Therefore the ocean needs to be explored, but for person exploring these oceans, it's very difficult and dangerous . Therefore underwater robots are needed.
- Underwater robots are autonomous but can also be controlled with a joystick, keyboard, …

Objectives

- Introducing a new technique for controlling an underwater robot, called the Girona500, and his robotic arm.
- Controlling another robot, the Turtlebot, and check if this technique is also usable on other robots with the same Operating System.
- Guiding the robotic arm to a valve in an underwater environment.



Applications

- Girona500
- Turtlebot
- Other robots which have ROS as operating system

Results

- Girona500
  - Easy to control
  - Not accurate
  - The roboticarm was difficult to control because of the limits of the joints
- Turtlebot
  - Easy to control
- Other robots with ROS as Operating System
  - ROS is modular architecture
  - Not tested
  - But concluded