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The 2014 underwater archaeological mission on the shipwreck of the *Lune*, in the framework of the *Corsaire Concept Project*: scanning and sampling artefacts with robots.

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Abstract. The "*Corsaire Concept Project*" aims at developing new robotic systems in order to explore and excavate archaeological sites at great depth. It involves several laboratories from France and Europe, as well as industrial partners, under the supervision of the DRASSM (French Ministry of Culture) and the FDS Med institution.

1 The Corsaire Concept Project

Since November, 6, 1664, close to the French shipyard of Toulon, the shipwreck of the Lune lies 90 meters deep, remarkably preserved. Yearly, in fall, the trials of the Corsaire Project consortium and it's invited partners are performed in this exceptional environment, thus allowing the estimate of the performances of the developed robotic tools under real conditions. This year, for the wreckage's 350 years celebration, sensing and sampling methods have been evaluated. The team has not only tested 3D laser scanning methods and underwater omnidirectional cameras, but also two new grasping devices, specifically designed for the project, and embedded on a mini-ROV: a mobile claw, and a 2000 meters depth rated robotic hand.

This talk will first remind the story of the Lune, focusing on its remarkable state of conservation and its historical interest. Then the Corsaire Project will be presented, and the tests performed this year on the shipwreck will be detailed and analyzed. This talk will be illustrated by many unreleased pictures and movies.

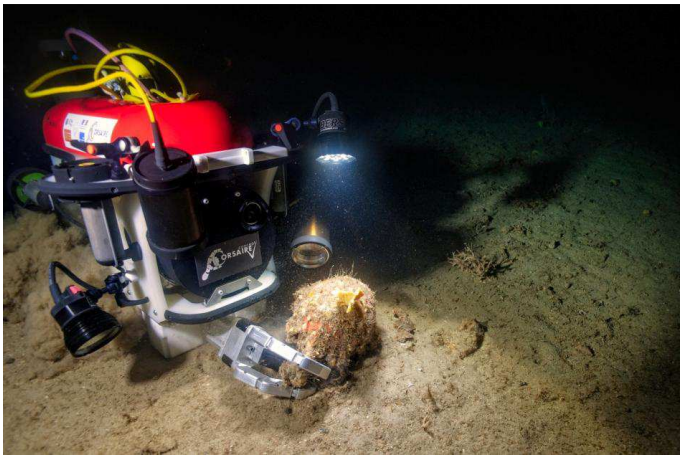

Fig. 1. The miniROV used in The Corsaire Project