Geophysical and geochemical surveys by using the underwater robot "R-One Robot"

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Underwater robots or autonomous underwater vehicles (AUV) are becoming one of important tools for marine geophysical and geochemical surveys. Institute od Indistrial Science, University of Tokyo, has developed a large underwater free swimming robot "R-One Robot" jointly with Mitsui Engineering and Shipbuilding Co., Ltd. The robot with a closed cycle diesel engine is designed to cruise for 24 hours at 3 kt, and has succeeded in autonomous cruising for more than 12 hours in 1998.We are now installing a side-scan sonar, an underwater gravimeter, and an in-situ chemical observation system on R-One Robot, and plan to begin with sea trials in June 1999.