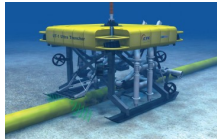


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By: Gabriel Gache, Science News Editor



Artistic impression of
UT-1 Ultra Trencher
during operation
Soil Machine
Dynamics

World's Largest Underwater Robot

UT-1 weighs 60 tons and is as big as a house

Weighing a massive 60 tons and with the dimensions of a small house, the UT-1 Ultra Trencher is now the biggest underwater robot ever made to be used for installing subsea cables for telecommunications and pipelines used in the oil industry. UT-1 Ultra Trencher is 7.8 meters long, 7.8 meters wide and 5.6 meters tall, cost 10 million UK pounds to build and may navigate through the water at speeds of 2 to 3 knots. Its XXL dimensions give it the capability to trench pipelines up to one meter in diameter, while being underwater at depths of up to 1,500 meters. UT-1 is build by the Soil Machine Dynamics, company specialized into building submersible robots, or ROVs for short. The first of the Ultra Trencher robots was acquired by the CTC Marine Projects, a UK contractor that executes subsea services, and has already been installed on one of their new vessels. UT-1 will help bury large diameter oil and gas pipes on the ocean floor, more than 1.5 kilometers underwater. The powerful propellers it is equipped with will take it to the designated depth, after which it will land directly above the pipeline only to deploy a pair of high water jets on each side of the pipe, to 'fluidize' the surface of the ocean bed. The technique of burying pipelines is employed most of the time to protect them from fishing vessels, shipwrecks and even natural currents and earthquakes and ensure a steady supply of energy from offshore locations to the land. On top of being the biggest underwater robot, Ultra Trencher is also the most powerful jetting trencher ever build. It is able to provide with 2 megawatts of power at any given time, of which 1.5 megawatts are used only for the jetting energy to bury the pipes. Also, it does not require preferential weather conditions due to its high flexibility during operation.