

R-300 Simulator



INTRODUCTION

X-300 Simulator

X-300 Simulator is the latest product developed by Graal Tech, aimed at customers that want to **experience the use of X-300 AUV** without going at sea.

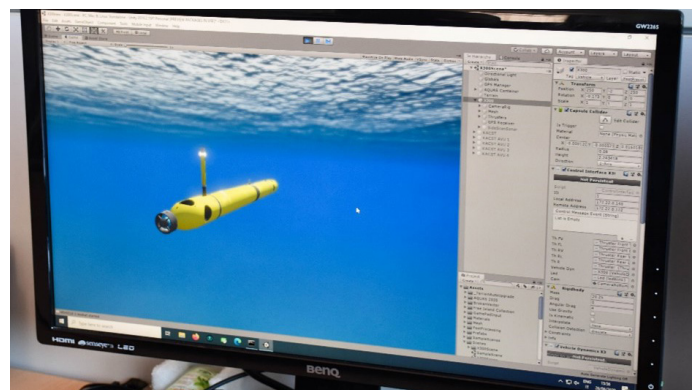
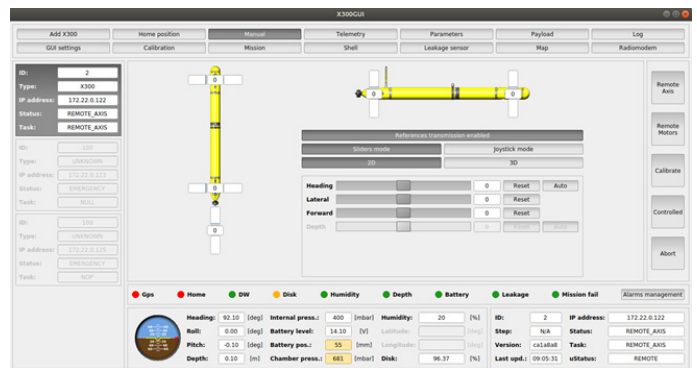
It is a standalone desktop simulation tool, equipped with the same software and the **same processing units as the actual X-300 AUV**, to accurately replicate the vehicle's behaviour within a digital environment.

An additional embedded PC hosts the simulative engine, running the dynamic model of the AUV, receiving stimuli from the virtual environmental, and the graphic libraries for a 3D rendering enabling the customer to gain a thorough understanding of what is going on underwater.

Experience X-300

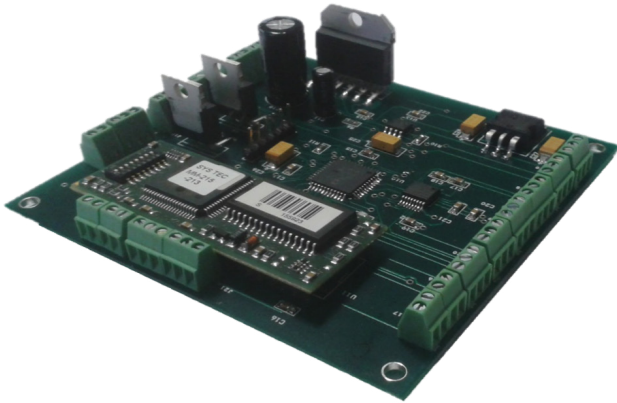
Potential customers who are attracted by X-300 AUV but would like to experiment the performance of the vehicle before proceeding with the investment, can now purchase this powerful tool and start getting a feeling about the actual capabilities of X-300 AUV.

By just connecting a monitor, a keyboard and a mouse, clients can immediately dive in the virtual underwater world and start programming missions for the simulated AUV, through the same graphical user interface which is delivered together with the actual vehicle.





MICROCHIP



HIL Simulations with Open Control System

X-300 Simulator features the same open control system as the physical X-300 AUV. The available network plug allows to connect X-300 Simulator to an external processing unit. In this way the user can write an Underwater App for its favourite processing board and interface with the control system of the virtual AUV, by accessing all the vehicle sensors and actuators through the set of provided software libraries.

This possibility is extremely useful also for customers already owning one or more X-300 AUVs. Running Hardware-in-the-Loop simulations with an open control system allows very effective testing of the missions of interest. Any conceptual error or software bug in the user-developed algorithms can be identified in advance and corrected in the virtual context. In this way, the chance of bad surprises later at sea, affecting the mission completion, or putting at risk the safety of the AUV is extremely reduced