

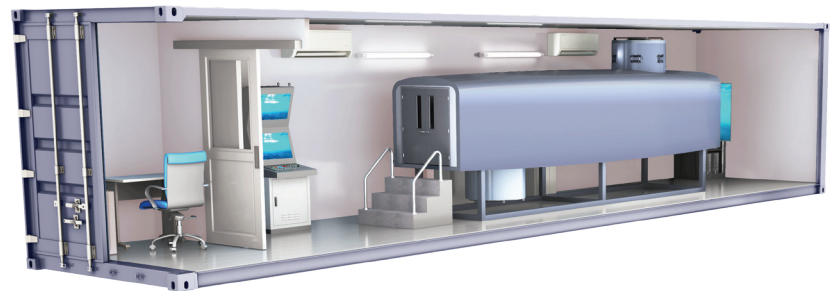
DSRV SIMULATOR

DEEP SUBMERGENCE
RESCUE VEHICLE SIMULATOR

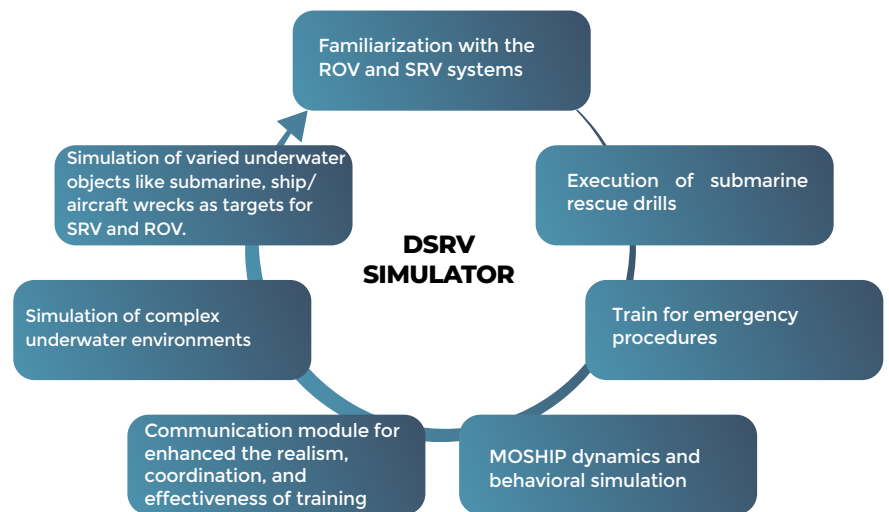


A state-of-the-art training system featuring high-fidelity hydrodynamics and immersive visuals that replicate real submersible operations. It enables operators to practice deployment, maneuvering, and recovery in challenging deep-sea rescue scenarios. With advanced controls and emergency response training, the simulator prepares naval personnel for critical underwater missions with precision and confidence

Equipped with advanced control interfaces, mission-critical subsystems, and a robust instructor module, the simulator supports comprehensive training in standard operations as well as emergency response scenarios. Crews can rehearse procedures for power failure, system malfunctions, and rescue aborts, building the competence and confidence needed to respond under pressure.



The Simulators for ROV and SRV will have the following broad capabilities for training:

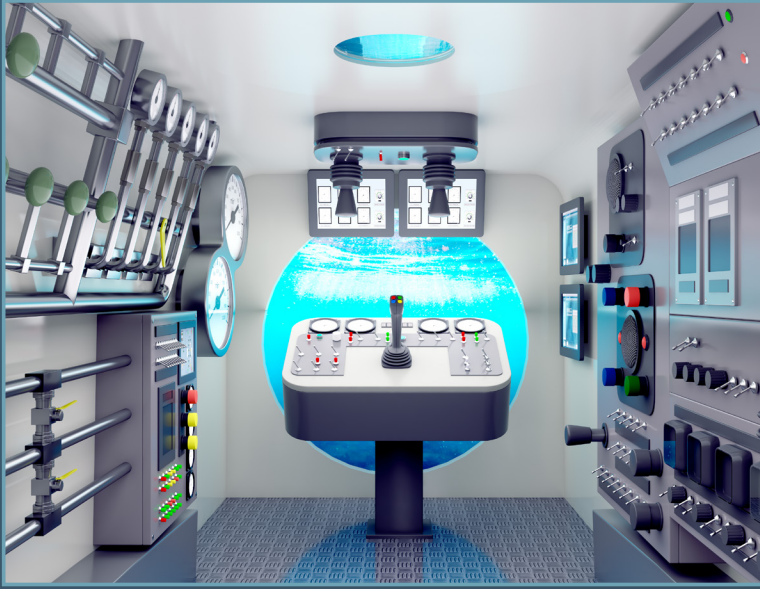


TECHNICAL FEATURES & SPECIFICATIONS

- **Physics-Based 6-DOF Modeling:** Accurately simulates real motion (forward/back, up/down, roll, pitch, yaw).
- **VR/AR Ready:** Can integrate with headsets or visual immersion tech for enhanced realism.
- **Environment:** Capability to simulate dynamic effects of underwater current/ swell / Sea States etc.
- **Real Hardware Integration:** Can be integrated with existing shipboard control hardware or joysticks.
- **Mission briefing and Debriefing tools:** Full playback of the mission, with performance analysis, error logs, scoring.
- **Mother Vessel:** Dedicated launch platform with LARS control module.
- **Customization:** Modelled & Configured based on the requirements.

SRV Simulator

The Submarine Rescue Vehicle (SRV) Simulator is a cutting-edge training platform designed to replicate the critical operations involved in deep-sea submarine rescue missions. Engineered for realism, it enables operators, pilots, and support crew to train in a risk-free virtual environment that accurately mirrors the complexities of underwater navigation, docking, and rescue procedures. By combining high-fidelity physics modeling, immersive visuals, and configurable mission scenarios, the SRV Simulator ensures personnel are thoroughly prepared for time-sensitive rescue operations—enhancing safety, coordination, and mission success in real-world deployments.

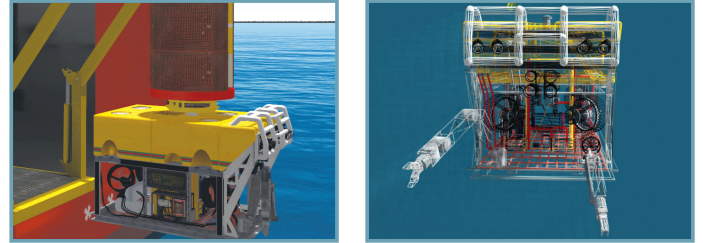


FUNCTIONALITIES & CAPABILITIES OF SRV SIMULATOR

- Simulate mating of the SRV on a target and Simulated DISSUB.
- Simulate surface/ dived emergencies on systems/ sub-systems.
- Simulate controls for dived manoeuvring.
- Simulate Life Support Monitoring (Oxygen system).
- Simulate Launch procedure of DSRV from Launch and Recovery System.
- Simulate surface control on a console for surface run for DSRV.
- Life support management emergency procedures.
- Pre and post dive procedures.
- Launch and Recovery of SRV.
- Home onto the DISSUB location with the help of its integral Sonar as well as its 'Pinger Locator'.
- Execution of Standard Operating Procedures.
- Simulate Voice Communication.
- Dry transfer operating procedures.
- Simulate Operation of soft seal system.

ROV Simulator

ROV (Remotely Operated Vehicle) simulator is a training and planning platform that replicates underwater missions—complete with full vehicle controls, manipulator arms, hydraulic systems, tether dynamics, visuals (camera/sonar), under variable sea conditions.



FUNCTIONALITIES & CAPABILITIES OF ROV SIMULATOR

- The simulator offers advanced capability to emulate ROV deployment across a range of sea conditions, allowing users to train with selectable underwater targets, varying environmental factors, and multiple classes of simulated distressed submarines (DISSUBs) for diverse mission scenarios.
- A true-to-life replica of the ROV System Console is provided, maintaining full form, fit, and function fidelity.
- The dual manipulator arms are functionally simulated to perform a wide range of realistic submarine rescue tasks—such as removing debris or cables obstructing the escape hatch of a distressed submarine, enabling hands-on skill development.
- Multiple camera angles, combined with real-time 3D imaging, rotation, and zoom capabilities, deliver immersive visual feedback, allowing clear observation of equipment behavior and the task at hand from any angle.
- The system integrates six high-resolution LCD monitors, configurable to display simulated ROV camera feeds, sonar outputs, system parameters, and diagnostics, providing operators with a comprehensive situational interface.

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