



Council of Marine Carriers Sponsors Theseus Marine Engineering Capstone Project SFU's School of Mechatronics Systems Engineering-August 2026

Council of Marine Carriers was pleased to sponsor the Theseus Marine Engineering (TME) Capstone Project, supporting students in the development of an enhanced remotely operated vehicle (ROV) for marine environmental and underwater inspection applications.

The project focuses on refurbishing and redesigning a Chasing M2-S ROV to support marine debris retrieval, sediment sampling, and underwater inspection. Following the discovery of significant damage to the vehicle's electronics, the team expanded the project to include a redesign of the control electronics and the integration of advanced underwater technologies.

Key innovations include an actively controlled ballast system for improved stability and energy efficiency, sonar sensing for greater underwater awareness, and a redesigned end-effector for debris retrieval and sediment sampling.

Through this Capstone initiative, the TME team is demonstrating how compact and cost-effective ROVs can be adapted to perform sophisticated marine environmental monitoring and industrial inspection tasks.

