

## Design of an Active Autonomous Dock Mechanism for AUV Recovery

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### ABSTRACT

The use of Autonomous Underwater Vehicles (AUVs) for civilian and military operations has been increasing significantly over the last three decades. Together with multiple other partners, UNB's Department of Mechanical Engineering has been working with Defence Research Development Canada (DRDC Atlantic) on the development of an autonomous system that would allow the Royal Canadian Navy to perform launch end recovery operations of AUVs from a Victoria-Class submarine. This presentation dives into recent contributions by UNB to this project.

After providing a general introduction to the problem and detailing the basic design requirements provided by DRDC, the presentation will focus on the modelling, design, and construction of a hydrodynamically-actuated robotic arm that would work as a proof-of-concept of the proposed design.