



**Job Safety & Environmental Analysis**

Memorial University, St. John's, Newfoundland and Labrador, Canada

MATE International ROV Competition 2018, Explorer Class

**Task: Launching ROV, Flying ROV and Recovering ROV**

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Steps	Hazards	Controls
Housekeeping	- Tripping hazards - Leftover tooling	Elimination: Remove left over materials from previous company or user and unnecessary debris on floor to prevent trips and slips.  Personal Protection Equipment: When performing cleanup, wear appropriate safety gloves, safety glasses and CSA Ohmic rated steeled or composite toe boots.
Pre-flight Setup	- Improper connections leading to electrocution  -Pneumatic air hazards	Elimination: Insulate all electrical equipment before entering work station.  Administrative Controls: Make sure air compressor is properly adjusted and hooked up with releases unhindered  Personal Protection Equipment: Wear appropriate safety gloves, safety glasses and CSA Ohmic rated steeled or composite toe boots.
Launch	- Improper protective barriers surrounding pool - Slipping Hazards - Open Water Hazard	Elimination: Remove access water from work area  Substitution: Use buddy system when launching ROV into the pool in replacement of protective barrier, preventing employees from falling into water. Ensure one hand of buddy is on the upper body of the deploying employee and the other is on locked down object.  Personal Protection Equipment: Use Personal Floatation Device when launching ROV or on deck of the pool.
Flight	- Tether tripping hazard	Elimination: Organize tether in company standard figure 8 pattern to prevent tangling during launch.
Recovery/Post Flight	- Thruster rotational Hazards - Falling Hazards - Tripping Hazards	Elimination: Ensure Thrusters are off to prevent injuries involving associated rotational hazards.  Administrative Controls: Ensure tripping hazards are known and eliminated to the best of the worker's ability. Continue to use buddy system to protect employees falling into the pool.
Post Flight Teardown	- Un-safe shutdown	Administrative Controls: Follow Safety Checklist for proper teardown order and insure all hazards are minimized.