MATE ROV Competition 2016

Job Safety Analysis

Nova Underwater Technologies

JOB STEP:	POTENTIAL HAZARDS:	RECOMMENDED RISK CONTROL METHODS:	PERSON(S) RESPONSIBLE:
1: Assemble equipment at poolside control station	**1A**: Potential damage to mission-critical equipment through mishandling **1B:** Potential injury to extremities of poolside teams via dropping eqpmt.	**1A-1:** Ensure all equipment is properly lifted and carried by poolside control teams **1B-1:** Ensure proper PPE is worn by all poolside crew members	Liam Acres, Morgan Higginson, Matt Glencross, Logan Crooks, Noah Mason
2: Connect all poolside electrical connections from exterior peripherals to electrical enclosure	**2A:** Potential damage to mission-critical equipment through electrical discharge **2B:** Potential injury to poolside crew members via electrical discharge	**2A-1:** Ensure all wiring is properly insulated, and that no live power is running during setup **2B-1:** Ensure all crew members are properly grounded and wearing correct PPE	Liam Acres, Morgan Higginson, Matt Glencross, Logan Crooks, Noah Mason
3: Connect air compressor to external power and to poolside pneumatic controls	**3A:** Potential damage to mission-critical equipment through incorrect connection to external power source	**3A-1:** Ensure air compressor electrical power plug is in correct working order and fully functional	Liam Acres, Morgan Higginson, Noah Mason
4: Connect computer monitor to external power and to poolside video converter	**4A:** Potential damage to mission-critical equipment through incorrect electrical connections to external units	**4A-1:** Ensure all power and video feed wiring is properly insulated and that poolside crew members are properly grounded and wearing correct PPE	Liam Acres, Morgan Higginson, Noah Mason
5: Check over all connections and plugs for possible safety issues or violations	**5A:** Potential injury to poolside crew members via electrical discharge **5B:** Potential damage to mission-critical equipment through incorrect connections to surface control equipment	**5A-1:** Ensure all crew members are properly grounded and wearing correct PPE **5B-1:** Ensure all wires/cables/plugs are connected to the correct receivers before providing power	Liam Acres, Morgan Higginson, Matt Glencross, Logan Crooks, Noah Mason
6: Perform initial startup check on all ROV systems	**6A:** Potential damage to ROV systems through voltage overload **6B:** Potential damage to ROV thrusters through running aquatic thrusters in open air	**6A-1:** Ensure power converter is correctly dialed to 12 volts power **6B-1:** Ensure ROV thrusters are not run at high speeds while in open air	Liam Acres, Morgan Higginson

7: Transfer physical ROV from poolside operation team to poolside observation team for ROV insertion	**7A:** Potential damage to ROV frame and systems via accidental drop of ROV	**7A-1:** Ensure all poolside crew members are extremely cautious when handling ROV, taking care to mind all electrical and pneumatic cables	Liam Acres, Morgan Higginson, Matt Glencross, Logan Crooks
8: ROV inverted and manipulation poles attached to support skis	**8A:** Potential damage to ROV frame and systems via accidental drop of ROV **8B:** Potential injury to extremities of poolside teams via dropping eqpmt.	**8A-1:** Ensure observation team is incredibly careful while rotating ROV and attaching poles **8B-1:** Ensure proper PPE is worn by all poolside crew members	Matt Glencross, Logan Crooks
9: ROV lowered by poolside observation team into water body	**9A:** Potential damage to ROV systems via sudden tension on surface tether **9B:** Potential injury to observation crew through falling into competition pool	**9A-1:** Ensure sufficient slack on surface tether is available when lowering ROV (ROV will survive fall into water undamaged from heights less than 3m) **9B-1:** Ensure observation crew is sufficiently back from pool edge when lowering ROV	Matt Glencross, Logan Crooks