

# JOB SAFETY ANALYSIS

## WARRIORTIDES

Valley Christian High School, San Jose, CA 95111

*All employees are required to comply with respective guidelines and measures when performing tasks.*

Tasks	Potential Participant Hazards	Potential Product Hazards
<b>ROV Transportation &amp; Integration</b>		
1.Loading and Offloading ROV/Topside	Lifting injury, slippage, drop/impact injury	ROV and Topside impact/fall
2.Directing teammates in a moving environment	Miscommunication, slippage/collision	Careening of ROV cart, etc.
3.Asking for parts/tools/modifications	Miscommunication, bodily injury from tools, collision	Dropped/broken tools or parts
4.Accessing 120ADC outlets	Electrocution/shock, explosion/flames	Major shorts to systems
5.Diver/Prop Setup	Drowning, Laceration	Collision, tangling
<b>ROV Setup/Breakdown</b>		
6.Enabling AC and DC system power	Environmental Discharge/Shock	Major Shorts to systems
7.Inspecting systems and auxiliary device+copilot setup	Miscommunication, collision, shock	N/A
8. Activating ROV and moving to poolside from topside station	Collision/drop impact with ROV, laceration, tripping, lifting injury, etc.	ROV and Topside impact/fall
9. Dry systems test	Impact with ROV	Electrical shorting, ROV damage
<b>Poolside Operation</b>		
10. ROV deployment/retrieval from pool	Injury from lifting, tripping	ROV impact/fall, tether damage/strain



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### Tasks

### Safety Measures

1	Proper lifting form, appropriate attire(closed-toed shoes), environment inspection(dry, obstacles, etc)	
2	Projected voice, stoppage keywords, no mobile devices/distractions, multiple people handling ROV cart	
3	Recipient is informed and attentive, bladed/sharp tools are handled carefully	Part/tool is clearly identified and properly handled
4	Confirm that outlet is GFCI-protected, insertion point is dry and clean	Make sure all system switches are open, test power system by system
5	Always have certified adult supervisor on deck, only deploy trained divers	Never have ROV in pool with diver, immediate notice of entanglement by tether management
6	Proper lifting form, appropriate attire(closed toed shoes)	ROV carefully held by at least two team members
7	No live circuits during inspection, projected voice and keywords, deliberate movements that decrease the risk of collision or slippage	
8	ROV is not powered, clear path is formed for 2 ROV carriers, projected voice and keywords	
9	Thrusters are run minimally, ROV carefully observed, all members at a distance from ROV	
10	Proper lifting form, neatly managed tether	Always deployed in water by 2 team members, strain relief checked for efficacy

#### Notes:

- Appropriate safety gear varies depending on task, includes safety glasses, gloves, face shields, etc.
  - Moreso applicable to ROV fabrication
  - Employees are expected to wear weather-appropriate clothing for outdoors testing
- All employees are expected to read the JSA completely and follow all safety measures
- Valley Christian High School is responsible for certification of adult supervisors and divers

