

JOB SAFETY ANALYSIS –

Demonstration of ROV upon the request of NASA and Oceaneering Space Systems (OSS) for operating in the harsh environments of both the deep ocean and outer space.

Company : Kwok Tak Seng Inc.

School : Kwok Tak Seng Catholic Secondary School

NAME OF DEPARTMENT : IT SCHOOL TEAM

Team name : KTSCSS Dolphin

TITLE OF JOB OR TASK: PORT CITIES OF THE FUTURE: COMMERCE, ENTERTAINMENT, HEALTH, AND SAFETY

TASK	HAZARDS	CONTROLS
1. Connect power to ROV	incorrectly connected wires may cause short circuit	1a-1. Double check power connections
2. General ROV design and construction	Protect hazards to others and the environment	2a-1. Develop and use a safety checklist 2b-2. Stick danger labels for moving parts and sharp 2b-3. Cover or eliminate sharp edges
3. Test the waterproofing effect	Electrical components will short circuit	3a-1. Test all waterproofing products before building ROV 3b-1. Painting glue around connecting points.
4. Connect communication to ROV	Trip on wire as it crosses the deck	4a-1. Choose a brightly colored shroud for the tether, as to be easier to see and avoid. 4a-2. Place all wires to the side of the pool deck, far away of high traffic areas.

5. Using hand tools and Power tools	Injury such as from sharp edges, blades, drill bits or heavy objects	5a-1. Avoid carelessness and pay attention 5a-2. Use the right tool for the task 5b-3. Make sure tool users are qualified to use hand tools 5b-4. Wash hands after use of solder and avoid unnecessary contact with skin and face
6. Loose Attachments/Tools	Trip hazard	6a-1.Keep all items in lunch boxes 6a-2.Use heater to soldering them
7. Mission station demobilization	Electrical components will short circuit	7a-1. Members briefed on how to 'break down' safely
8. Controlling the clamp by using pneumatic system	A person's finger or other body part will be trapped by the clamp of the pneumatic system.	8a-1. Make sure there is no energy pass through the pneumatic system to the clamp while no people is using the ROV
Required Training:	Required Personal Protective Equipment (PPE)	

Other Information:	http://ehs.berkeley.edu/how-do-i-write-and-update-job-safety-analysis-jsa http://www.safetyworksmaine.com/safe_workplace/safety_management/hazard_analysis.html
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