

Mount Pearl Senior High

Job Site Safety Analysis (JSAs)

MATE International ROV Championship 2019



The following document outlines the job tasks that are readily completed by the employees of the Husky Explorer team and describes these specific tasks in a step-by-step fashion. The JSA also allows for the potential hazards associated with each step of these particular job tasks as well as the appropriate safety measures enforced in order to minimize the risk of all injuries and illnesses presented to any individual(s) completing the tasks, to be identified. The information presented within this document is strictly enforced and is essential to ensuring a safe and risk-free working environment for all Husky Explorer employees working with the team’s remotely operated vehicle (ROV), the Husky ROVER.

| <u>Description of Job Task:</u> | <u>Potential Hazards:</u> | <u>Recommended Risk Control Measures and Safety Precautions:</u> | <u>Employee Responsible:</u> | <u>(Electronic) Initial:</u> |
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| Working in the Workshop. | Tripping hazards. Leftover clutter in the workspace. | Clean up all ROV stations before and after use. Make sure floor area is clean and clear, ensuring any and all long cords are out of walkways and stored properly. Pick up all nuts and bolts and any other small object which may fall on the floor or interfere with maintenance or activities in the workshop. | Jacob Purchase. (Safety Officer). | JP. |
| Operating Various Manual and Power Tools. | Accidental injury from tools due to operation in a crowded or distracting environment. Malfunction of tools resulting in risk or injury. Misuse of tools resulting in risk or injury. | Gloves must ALWAYS be worn while utilising sharp blades or hot items. Ensure that all proper guards are appropriately placed on ALL tools with sharp and/or spinning blades/parts. Before the use of any tools, employees must ensure that such tools are in working order and properly maintained. Ensure that employees only use the appropriate tools AFTER they have completed and passed the corresponding safety quiz and encourage them to ask for help if needed. Make sure that the appropriate tool is being used for the specific task or job. Ensure that the area surrounding employees using any tools is clean, clear and uncrowded by other employees or personnel. ABSOLUTELY NO CELL PHONE USAGE in the workshop or during the operation of any and all tools. | Tim Squires. (Mechanical Lead). | TS. |

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| Lifting Heavy Objects. | Risk of back and other bodily injuries. | <p>Ensure that all employees lift objects properly. There must always be two persons lifting any object over 40 lbs or more as required.</p> <p>Remind all personnel of the back protection protocol for lifting heavy objects: "Nose between toes, use your legs".</p> | Jacob Purchase. (Safety Officer). | JP. |
| Working with Various Hazardous Materials. | Risk of possible eye, ear and/or skin damage. | Ensure that company members ALWAYS wear and are equipped with appropriate Personal Protective Equipment (PPE) for the specific task such as safety glasses, gloves and/or a protective face mask. | Jacob Purchase. (Safety Officer). | JP. |
| Working with Various Electrical Components. | <p>Malfunction of electronics resulting in risk or injury.</p> <p>Improper connections or exposed wires resulting in risk or injury.</p> <p>Electrocution.</p> | <p>Ensure that all electrical connections are properly connected and covered with the appropriate wire covering or shrink wrap, especially over any and all possibly exposed wires and electronic components.</p> <p>Make sure all electronic components are in working order and are not unsafely modified or damaged in any way, shape or form.</p> <p>Insulating gloves must ALWAYS be worn while working with any electronic components.</p> <p>Ensure that the workspace is DRY and clear of any conductive materials.</p> <p>Whenever working with any electrical components, there should NEVER be any live wires, power, current or voltage being provided to or traveling through these components until they are certified safe and it is appropriate to do so without risk of injury.</p> | Shane Williams. (Controls Lead / Co-Pilot). | SW. |
| General Manufacturing. | <p>Unsafe behavior by employees resulting in risk or injury.</p> <p>Injury caused by employee fault or ignorance.</p> | <p>Ensure that all employees are properly educated on how to act in the workshop as well as how to address the unsafe behavior of others.</p> <p>Employees are actively discouraged from partaking in roughhousing of any type while in the workshop or poolside with the ROV as this could result in serious injury.</p> | Tim Squires. (Mechanical Lead). | TS. |

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| <p>Working within an Unfamiliar Job Site.</p> | <p>Injury caused by working in an unfamiliar environment. Possible property damage to the new place of work.</p> | <p>Ensure that whenever employees are working on job sites they may not be familiar with, extra caution is used to not only avoid risk of injury to our employees and ROV, but also to avoid any damage that may be done to the property as a result.</p> | <p>Jacob Purchase. (Safety Officer).</p> | <p>JP.</p> |
| <p>Poolside Tasks.</p> | <p>Slipping or falling in the pool resulting in risk or injury.</p> | <p>Personal Floatation Devices (PFDs) must ALWAYS be worn by employees when at the poolside, even if they are not directly working with the ROV. Employees must always walk carefully at the side of the pool and pay extra attention to whatever they may be doing at that particular moment.</p> | <p>Allison Manning. (Engineer).</p> | <p>AM.</p> |
| <p>Working with Pneumatics.</p> | <p>Possible injury to employees working with any pneumatic components and/or compressed air. Possible damage to pneumatic components or attached air compressor.</p> | <p>The system must ALWAYS be depressurized to 0 PSI before any employee works on or modifies the system. Ensure that all safety regulators are set correctly, gauges are calibrated appropriately and proper connections are made in order to reduce the risks of malfunction and/or a faulty system. Ensure all employees know how to properly operate the attached air compressor and understand how to work on various pneumatic components to reduce the risk of injury as well as damage to any components. Keep air compressor away from all possible sources of heat and wear proper ear protection when in use.</p> | <p>Cameron Kinsella. (C.E.O / Pilot).</p> | <p>CK.</p> |

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| <p>Conducting Oneself Appropriately in the Workshop.</p> | <p>Possible risk of injury to other employees.</p> <p>Miscommunication.</p> <p>Possible state of emergency within the work space.</p> | <p>Absolutely NO horseplay and/ or any other activity that may present risk to an individual employee or other surrounding personnel.</p> <p>ABSOLUTELY NO CELL PHONE USAGE while working in the workshop.</p> <p>Familiarize all employees with the JSA and ensure they are properly educated on how to address and resolve various risky situations or behaviors.</p> <p>There must always be appropriate First Aid equipment available in as well as a designated supervisor and/or personnel professionally trained in First Aid present in the workshop at all times.</p> <p>All employees must be made aware of and understand the fire exit route.</p> <p>Employees must always wear the appropriate safety equipment and adequate clothing for the tasks that they are completing in the workshop.</p> <p>Employees are encouraged to take breaks as necessary to avoid unnecessary stress or overworking themselves. They are asked to work in a mindful and ergonomic manner.</p> | <p>Jacob Purchase. (Safety Officer).</p> | <p>JP.</p> |
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