# JOB SAFETY ANALYSIS

Safety Information for Northeast State Community College MATE ROV competition

## NAME OF DEPARTMENT The Capstone

## TITLE OF JOB OR TASK

| TASK | HAZARDS | CONTROLS |
|---|---|---|
| 1.PVC pipe cutting | Damage to the eye, potential cuts, and loss of limbs or digits. | Wearing safety glasses, wearing gloves handling the PVC, having people hold the PVC in place while someone else cut it, clearing the area of anyone not cutting holding or measuring to prevent an injury. |
| 2.Soldering the board | Damage to the eye, burns, damage to digits, and electrocution. | Wearing safety glasses, wearing gloves, and having a spotter watch the person using the soldering gun. |
| 3.Assembling the robot | Pinch points, potential cuts or bruises, and electrocution. | Never working alone to assemble, using a spotter to look out for pinch points, wearing gloves to try and prevent cuts, making sure the robot deenergized. |
| 4.Attaching the rotors | Pinch points, potential cuts, potential damage or loss of digits, and electrocution. | Wearing gloves while handling the blades, wearing safety glasses, having a spotter looking out for pinch points, ensuring the robot was deenergized. |
| 5.Powering the robot on | Electrocution, pinch points, burns, and death. | Giving one responsibility to each person, one person plugging the plug into the outlet, one plugging the computer in, one plugging the plug into the power supply box, each person calling out what they are doing one step at a time, Calling out each time a step is powered on, Caution opening and closing the power supply box for pinch point hazards, and not allowing anyone with a heart condition to plug anything in. |
| 6.Placing the robot in the water | Electrocution, death, pinch points, tripping hazards, and damage to the eye | Ensuring the first time we put the robot in the water that it was not plugged in to test for leaks. After the first drop pulling it |

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| | | | out and checking for any water inside the tube. If no water was discovered dry it off and go through the previous steps of plugging in the robot. Placing the robot gently in the water to prevent potential eye damage and wearing safety glasses to prevent splashing. |
| | 7.Removing the robot from the water | Electrocution, death, tripping hazards, pinch points, and damage to the eye. | Ensuring that our driver has set the controller down and pushed the stop button. We will then power down the power control box and unplug the robot, and then our designated remover will then remove the robot. The remover will ensure their fingers are not in a place for a potential pinch point. The safety inspection then will ensure there are no water leaks. |
| | 8. Transporting the robot | Pinch points, tripping hazards, and potential cuts or bruises. | Working together as a group to transport the robot, team lifting everything, lifting with our legs and not our back, ensuring the tether is secure to prevent tripping hazards, and ensuring everything is unplugged. |
| | **Required Training: Going over potential safety hazards prior to each task, having a spotter for each task, working in pairs, stopping and going over any potential hazards that come up during a task.** | **Required Personal Protective Equipment (PPE) Safety glasses, gloves, face shield, spats, closed toe shoes, ear protection, and first-aid kit** | |
| **Other Information:**<br>**Contributors:**<br>**Created:**<br>**JSA Library Number:** | Department: Safety Officer, Jerrod Perkins<br>May 2024 | | |

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