



NORTH PAULDING ROBOTICS

North Paulding High School
300 N Paulding Drive
Dallas, GA 30132



JOB SAFETY AND ENVIRONMENTAL ANALYSIS

2019 MATE
International Competition
Ranger Class

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Developing and Managing the ROV

Initial/Date	Task	Hazard	Control
	Lifting heavy objects	Injury to body parts	Follow proper protocol when lifting or moving heavy equipment. Make sure hands and feet are not in the way when equipment is moved.
	Dealing with sharp objects	Eye Injury	Wear safety goggles.
		Minimal or serious cuts	Wear gloves and do not face tool toward body.
	Soldering electrical components and heat shrinking	Burning hands, face, or arms	Wear long-sleeved clothing and have a spotter on site.
		Respirator problems	Wear a face mask or take breaks when soldering.
	Drilling and welding	Deep Cuts	Wear thick gloves and face power tools away from your body. Make sure you are capable of handling the object.
		Serious 2 nd or 3 rd degree burns	Wear a welding mask, heavy gloves, long sleeves, heavy shoes and pants.

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Managing and Operating the ROV

Initial/Date	Task	Hazard	Control
	Launching and Retrieving the ROV	Hand Injury	When retrieving the ROV, grab firmly on the frame of the ROV.
		ROV Damage	When launching the vehicle, carefully insert it into the water, do not drop it in. When lifting the ROV, lift straight up from the water with both hands on the frame of the ROV.
	Transporting the ROV	Dropping and Damaging ROV	Bring containers to secure the ROV when transporting it. Make sure to put a lid on it and have a tight fit to limit changes of damage.
		Damage when packing ROV	Carefully place the ROV into a secured container when transporting. Make sure that wires and tether are neatly wrapped up.
		Damage when un-packing ROV	Always have 2 members remove ROV from container.
	Lifting the ROV	Back Injury	When lifting a heavy object, make sure that you are lifting something that you know you can lift with multiple people helping to avoid back injury.
		Hand Injury	When lifting a heavy object, either secure your hands onto the object or take breaks in the process.
	Connecting the tether	Tether pulling	Ensure tether is securely placed in tether restraint.
		Tripping over tether	Use proper coiling procedures for tether.
	Operating the ROV poolside	Electrocution	Follow deck commands when preparing to launch ROV.
		Slipping, drowning	Wear floatation devices when launching the ROV or on the deck of the pool.