



DART'S JOB SAFETY ANALYSIS (JSA)

ROV Development			
Task	Hazard	Controls	
Using mechanical tools (table saw, hammer, hand drill, screwdriver, utility knife, crimper)	Cuts and abrasions from using table saw	Only using saw in well lit area, ensuring that the height of the saw did not go more than 6mm away from the height of the object	
Developing and connecting electrical systems (soldering, crimping, wiring)	Cuts and bruises from various precision tools	Keep stationary hand clear of cutting path	
	Burns	Ensure that soldering iron is placed into stand between uses	
	Eye and respiratory irritation due to carcinogens	Utilize small fan to keep area ventilated while soldering	
Using rapid prototyping and additive manufacturing	Electrocution due to exposed wires	Keep electrical components insulated at all times, ensure that all components are kept in dry environment	
	Respiratory irritation due to nanoparticles	Using 3D printer in a large, well-ventilated area	
	Chemical spill of substance used to dissolve extraneous material	Spill control and containment tools	
ROV Deployment			
Task	Hazard	Controls	
Releasing tether into water	Tripping hazard	Keeping tether in secure coil and ensuring other members are at least 2 feet away	
Powering on ROV	Spinning propellers	Ensure that propellers are not activated until ROV is safely placed into water	