

Team Daedalus JSA

2016-2017 Competition Safety Procedures

Construction and Testing Protocol

TASK	POSSIBLE HAZARDS	SAFETY PROCEDURE	RESPONSIBLE MEMBERS
Using drill press	Entanglement, eye injury, work stability/ impact injury,	Wear safety glasses, clamp working parts down, all loose clothing and items are removed or tied to prevent entanglement.	All team members
Using power tools	Lacerations, entanglement, electric shock	Use in dry areas, wear safety glasses loose items are removed or tied to prevent entanglement, being aware of what's going on around	All team members
Using hand tools	Burns (soldering iron), pinching, Cuts,	Wearing safety glasses, cutting away from oneself, wearing and keeping hands away from pinch points on tools. Tools are put away properly.	All team members
Testing thrusters	Cuts	Wearing safety glasses, keeping hands and loose items away from thrusters when powering on and operating.	All team members

Testing electrical systems	Electric shock, burns (short heating up)	Open electronics are away from water, unless sealed. Checking and double checking all polarity and check for power to ground shorts.	All team members
Testing mechanical systems (i.e. claw, rotational motions)	Pinching from gears, crush injury.	Possible pinch points are covered and or labeled.	All team members

Loading and Unloading Protocol

TASK	POSSIBLE HAZARDS	SAFETY PROCEDURE	RESPONSIBLE MEMBERS
Loading ROV	Damage to the ROV, injury from dropping the ROV	Having good grip on ROV, two people to carry ROV.	All team members
Loading tether	Tangling, twisting, straining the tether, getting oneself caught in the tether	Coiling tether to prevent damage	All team members
Loading control station (i.e. monitors, RC transmitters)	Damage to screens and the gimbals and switches on radios	Properly packing screens and radios.	All team members
Carrying travel crate	Dropping and damaging case and internals	Always two people carrying.	All team members

Unloading ROV	Same as loading	same	All team members
Unloading tether	Same as loading	same	All team members
Unloading control station	Same as loading	same	All team members

Activation and Deploy Protocol

TASK	POSSIBLE HAZARDS	SAFETY PROCEDURE	RESPONSIBLE MEMBERS
Preparing ROV for deploy	Trip and fall on ground or water	Good communications(tether is behind you) and practice	All team members
Deploying control station	Damage to equipment	Carefully uncoiling wires and connections	Cooper
Uncoiling tether	Entanglement or trip	Two person job	Priya and Gunnar
Powering ROV	Reverse polarity, electrical shock	Double checking polarity, clear, concise communications	Spencer and Cooper
Testing thrusters	laceration	Clear, concise communication	Spencer and Cooper
Testing mechanical actuations	Pinching from gears, crush injury	Possible pinch points are covered and or labeled.	All team members
Testing cameras	No known safety issues	Clear, concise communications	Spencer and Cooper?
Deploy ROV	Slipping into pool, entanglement with tether	Clear, concise communications	Tether tender, who is this?