



JOB SAFETY ANALYSIS

Required Personal Protective Equipment

- Non-slip, closed shoes
- Safety glasses
- Gloves
- Earmuffs
- Hair Band (For people who have long hair)

TASKS	HAZARDS	CONTROLS
Produce of building ROV		
Using hand tools, power tools and machine	Eye injury	<ul style="list-style-type: none"> • Wear safety glasses for preventing flying debris from getting into eyes
	Hearing damage	<ul style="list-style-type: none"> • Wear earmuffs for protecting noise-induced hearing disability
	Physical injury	<ul style="list-style-type: none"> • Turn off the tool when not in use • Hand tools in power tool and machine keep good condition • Do not use hands for cleaning and touching the operating machine • Press emergency button when working pieces get struck in the machine • Maintain a clean and well-lighted in working environment • Tie up long hair when operating hand tools, power tools and machine
	Burns	<ul style="list-style-type: none"> • Wear gloves when touching hot working pieces
Making buoyancy foam, Electronic Speed Controllers and cable connectors	Allergy	<ul style="list-style-type: none"> • Wear gloves when working with epoxy
	Flammable	<ul style="list-style-type: none"> • Stay away from sources of ignition
	Harmful of inhalation, in contact with skin and if swallowed	<ul style="list-style-type: none"> • Name clearly of the substances • Specify the symbol and classify • Indicate the particular risk • Indicate the safety precautions
Building ROV	Physical injury	<ul style="list-style-type: none"> • Ensure no sharp edges on the ROV • Put the warning labels on thrusters
Using 3D printer	Burns	<ul style="list-style-type: none"> • Do not use hands for cleaning and touching the operating 3D printer • Do not print the object overnight

Contributors: Beth AU, Louise LO, Jerry LUM



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TASKS	HAZARDS	CONTROLS
Operations		
Mission testing in water tank	Slipping / falling	<ul style="list-style-type: none"> Wear non-slip shoes in the water tank Ensure water cannot over 1.2meters
Setting up the ROV system	Electrocution	<ul style="list-style-type: none"> Place the ROV and Electrical Distribution Control Panel on a dry location before operation Keep hands are dry all the times
	Physical injury	<ul style="list-style-type: none"> Wear closed-toed shoes Lift heavy object / equipment with 2-4 members Slightly bend your body forward when loading and unloading Use trolley for transporting the ROV
Setting up power supply	Overvoltage	<ul style="list-style-type: none"> Check the voltage reading that it shows 12V normally
Managing the tether	Tether damage	<ul style="list-style-type: none"> Store the tether into tether cart roll after every use Always keep an eye on the tether Ensure the tether is not tangled all the time
Turning on the ROV	Thrusters malfunction	<ul style="list-style-type: none"> Step 1: Turn on remote control joystick Step 2: Turn on control panel
Turning off the ROV	Thrusters malfunction	<ul style="list-style-type: none"> Step 1: Turn off control panel Step 2: Turn off remote control joystick
Blowing dry the ROV of post-drive	Damage the functionality of entire ROV	<ul style="list-style-type: none"> Prevent the physical damage of ROV

Required Training

- Loading and uploading procedures
- Power checking and set-up the ROV
- Proper operation of specific tools and ROV
- Below dry running the ROV on the dry place

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