## TASKS | HAZARDS | CONTROLS
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### Produce of building ROV

**Using hand tools, power tools and machine**

- **Eye injury**
  - Wear safety glasses for preventing flying debris from getting into eyes

- **Hearing damage**
  - Wear earmuffs for protecting noise-induced hearing disability

- **Physical injury**
  - 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 stuck 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**
  - Wear gloves when touching hot working pieces

**Making buoyancy foam, Electronic Speed Controllers and cable connectors**

- **Allergy**
  - Wear gloves when working with epoxy

- **Flammable**
  - Stay away from sources of ignition

- **Harmful of inhalation, in contact with skin and if swallowed**
  - Name clearly of the substances
  - Specify the symbol and classify
  - Indicate the particular risk
  - Indicate the safety precautions

**Building ROV**

- **Physical injury**
  - Ensure no sharp edges on the ROV
  - Put the warning labels on thrusters

**Using 3D printer**

- **Burns**
  - Do not use hands for cleaning and touching the operating 3D printer
  - Do not print the object overnight

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**Required Personal Protective Equipment**

- Non-slip, closed shoes
- Safety glasses
- Gloves
- Earmuffs
- Hair Band (For people who have long hair)
## TASKS | HAZARDS | CONTROLS
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Operations
Mission testing in water tank | Slipping / falling | • Wear non-slip shoes in the water tank
• Ensure water cannot over 1.2meters
Setting up the ROV system | Electrocution | • Place the ROV and Electrical Distribution Control Panel on a dry location before operation
• Keep hands are dry all the times
| Physical injury | • 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 | • Check the voltage reading that it shows 12V normally
Managing the tether | Tether damage | • 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 | • Step 1: Turn on remote control joystick
• Step 2: Turn on control panel
Turning off the ROV | Thrusters malfunction | • 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 | • 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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