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ISDN 2400: Physical Prototyping 24-25 Spring
Safety Instruction

TESTING SAFETY INSTRUCTION

THE TESTING POOL



- **Size:**
 - The testing pool is an above-ground swimming pool measuring 4.5m (L) × 2.1m (W) × 0.8m (D).
- The pool has a protective cover to keep it clean and debris-free.



THE TESTING POOL

- **Location:**

- The testing pool is located in the garden between the ISD Studio and Engineering Commons.



SAFETY INSTRUCTION FOR THE POOL USING



Supervision and Communication

- Before testing, send a detailed message in the WhatsApp group stating:
 - Your intended testing time
 - Names of team members present
 - Brief description of planned tests
- Begin testing only after receiving explicit TA approval in the group chat
- In case using 220V power, inform TA and TA will setup the power strip for you.

Environment Safety

- Strictly prohibited: All high voltage electricity (220V) within 4 meter the pool area
- Conduct a thorough pre-testing inspection:
 - Clear debris and potential hazards
 - Check for sharp objects and slippery surfaces
 - Ensure proper lighting conditions
- Weather considerations:
 - No testing during lightning or heavy rain
 - Check the weather forecast before scheduling

SAFETY INSTRUCTION FOR THE POOL USING



Personnel Safety

- Strictly enforce pool area conduct:
 - No running or horseplay
 - Maintain professional behaviour at all times
- Required safety equipment:
 - Shoes with good grip
 - Appropriate clothing for water proximity
- Swimming ability awareness:
 - Non-swimmers must notify other team members beforehand.
 - Always work in at least pairs for safety
- Pool access restrictions:
 - Strictly no entering the pool

SAFETY INSTRUCTION FOR THE POOL USING

Equipment Safety

- The Fish:
 - Ensure there are no sharp components.
- Electronic components:
 - All electronics must be properly waterproofed
 - Conduct dry-run tests before water exposure
 - Use appropriate waterproof connectors
- Maintenance and inspection:
 - Regular pre-test equipment checks
 - If any damage or wear identified, send messages and images in the group chat
- Emergency equipment must be readily available:
 - First aid kit
 - Emergency shut-off mechanisms
 - Retrieval tools



SAFETY INSTRUCTION FOR THE POOL USING



SAFETY INSTRUCTION FOR THE POOL USING

- Do not bring a 220V power source into the swimming pool area



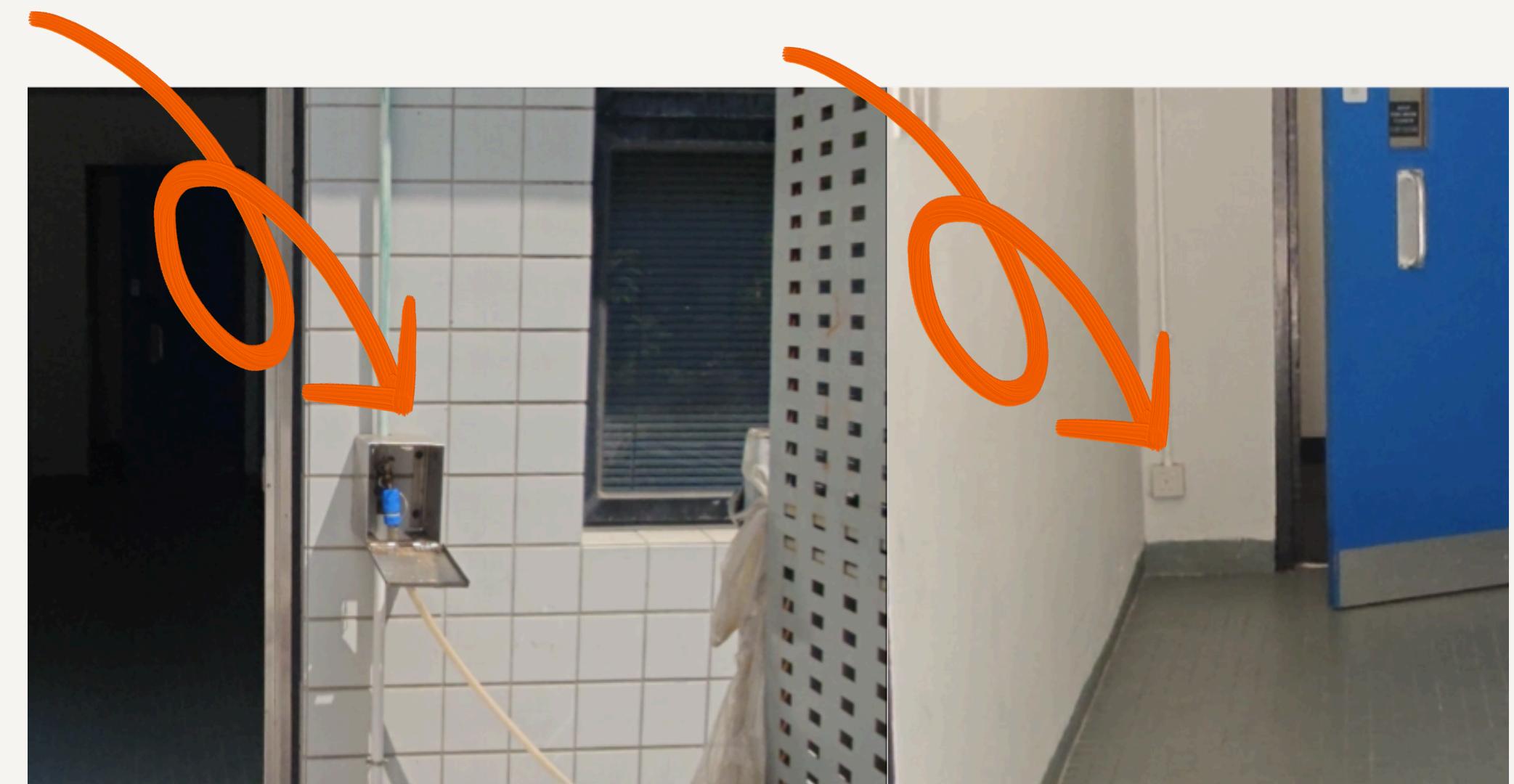
SAFETY INSTRUCTION FOR THE POOL USING

- 220V power source
- If you need, ask TA for power strip every time and return the strip back immediately after single testing.
- Use only Hong Kong Type G socket power strip



SAFETY INSTRUCTION FOR THE POOL USING

- All power source away from the water supply source



TESTING YOUR FISH



Waterproof Fish Casing

- You are advised to thoroughly test the waterproofing of your fish casing before pool testing:
 - First remove all the inside components and test in shallow water or a sink to check for leaks
 - Ensure all seals and joints are properly secured
 - If using 3D printed parts, apply waterproof coating or sealant as needed
 - Double-check that all electronic components are properly protected

TESTING YOUR FISH



Powering your fish

- With Cable:
 - Use a battery less than 24V, properly placed above the pool water level and at least 2 meters away from the pool.
 - Ensure all wires are properly connected and insulated.
 - Use a rod to guide the wire from outside the pool to the top of the fish. Assign one person specifically to move the rod alongside the fish during testing.
 - Avoid using a 220V power supply. If absolutely necessary, obtain TA permission first—a TA will be assigned to supervise testing. Place the power supply on a table above water level and at least 4 meters away from the pool.
- Wireless:
 - Use a battery less than 24V and secure it properly inside your fish body.
 - Test the fish body thoroughly to ensure it is waterproof.
 - Regularly check for water infiltration by shaking the fish or inspecting the case.

IN CASE OF EMERGENCY AND EQUIPMENT DAMAGE





IN CASE OF EMERGENCY AND EQUIPMENT DAMAGE



Call Emergency Hotline (If needed) : 999

Call Security (if needed) : 2358 6565

Call Eric (Always) : +852 54921582