

## 1. General Pool Event Rules

### a. The ROV, Spare Parts, and Adjustments

- i. The team must use the same ROV that was presented at compliance for both pool events.
- ii. Each team must have their own ROV – teams are not allowed to share an ROV.
- iii. Teams are not allowed to share ROV attachments or devices.
- iv. Spare parts are allowed; however spare ROVs are not allowed.
- v. The ROV may be worked on or adjusted during competition; however, the run timer will continue to time the run.
- vi. Adjustments to buoyancy, including adding or removing buoyancy materials, may be made at any time including during competition runs, however the run timer will continue to time the run.
- vii. Parts connected to the ROV may be adjusted before the pool event.

However, no parts or materials may be added or removed to the ROV after compliance checks are completed except for buoyancy material.

### b. Diver Assistance and ROV Tether Handling

- i. The ROV must move only under its own power. Teams will incur a 5-point penalty if they pull or otherwise maneuver the ROV by the tether.

- ii. If the ROV or tether becomes tangled on the course structure or is otherwise unable to move on its own power, a team member must notify the judge that they would like to try to free the ROV, or request diver assistance to free or retrieve the ROV.

Under this circumstance teams may pull on the tether, however the run timer will continue, and a 2-minute penalty will be added to the elapsed time. If the ROV is pulled by the tether or moved by a diver, the ROV must be returned to the location that it was moved from before it may continue competing.

c. On Deck

- i. Only three student team members are allowed on the pool deck in the competition area during an event. No teachers, coaches, mentors, or others are allowed in the competition area unless prior arrangements have been made to accommodate special needs.
- ii. The on-deck team members may switch drivers at any time and as many times as they choose.
- iii. All team members must wear shoes with rubber soles while on the pool deck.
- iv. Teams will be given a 2-minute setup period after arriving at the competition lane.

During this setup period, teams should adjust the ROV's buoyancy and make any other necessary adjustments. The referees will start the run timer at the end of the setup period.

v. Foul Play

- Any signs of foul play or misconduct by any team during the competition will incur a penalty that may range from point loss to disqualification.

## 2. Waterway Cleanup Mission Rules

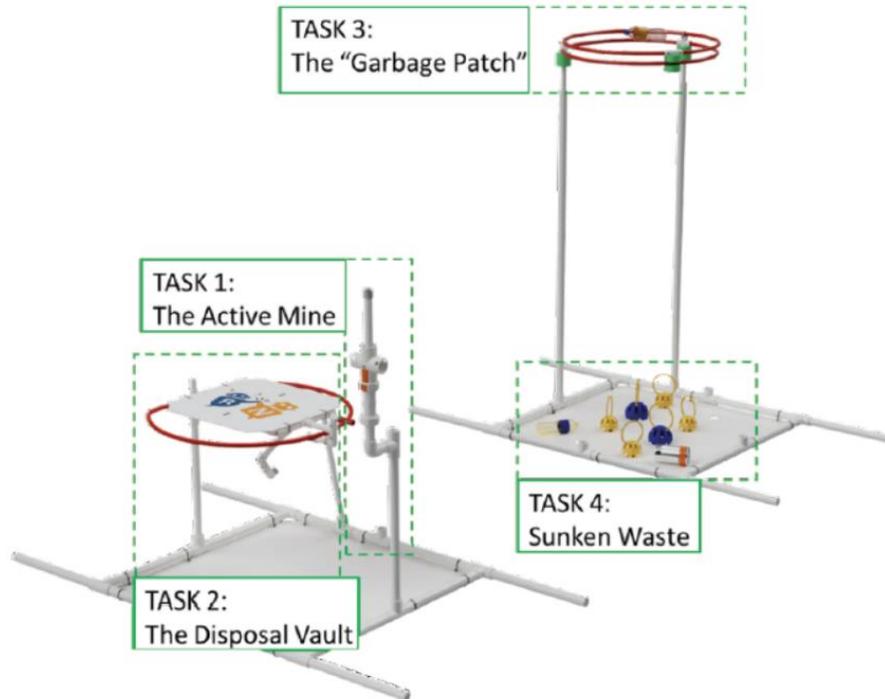


Figure 1 Figure 2 – Waterway Cleanup Mission Course

- a. Teams are allowed one 13-minute run for the Waterway Cleanup Mission.
- b. Only one object may be transported at a time by the ROV.
- c. Course Navigation:
  - i. Start of run: The ROV must be surfaced, within 6" of the wall, and under its own power. Team members are not allowed to touch the ROV after the referee starts the countdown to start the run.
  - ii. No tasks are mandatory in order to complete other tasks, and tasks may be completed in any order.
  - iii. Mission Completion (End of Run): The run is complete when the ROV touches the pool wall while surfaced (any part of the ROV breaks the water surface). The run will be

aborted if the allotted 13 minutes expires even if the ROV has not completed all tasks.

- iv. Scoring: Teams will only be awarded Finish Time Bonus points if all tasks within the course have been successfully completed.
- v. Adjacent Lanes: Teams are not allowed to maneuver the ROV into an adjacent lane for any purpose and will be penalized if they attempt to recover objects from an adjacent lane.

#### SKNMDC Pool Event Rules (2021 Season)

- d. Task 1 – The Active Mine
  - i. Task Requirement:
    - The ROV must maneuver to the Active Mine and disarm it by either rotating or removing the Arming Device.
    - When armed, the Active Mine's LED will be lit and the indicator stripes on the Active Mine and the Arming Device will be aligned. For competitions that are using a non-electronic Active Mine the indicator marks will be the sole indicator of the Active Mine's armed/disarmed state.

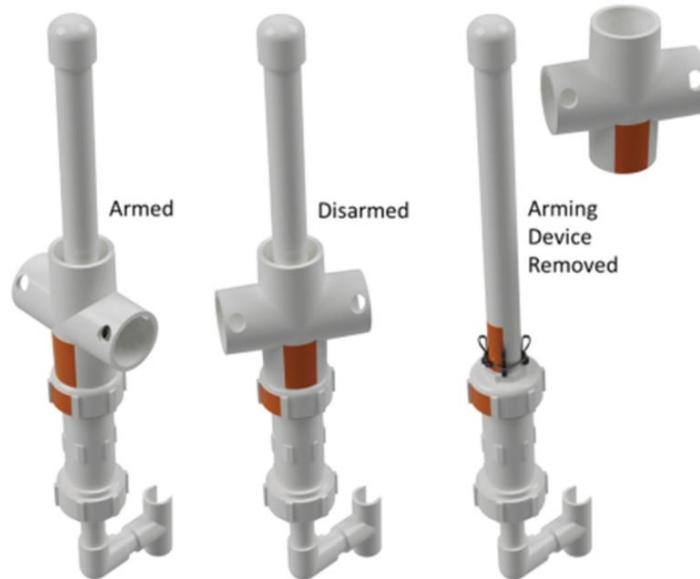


Figure 2 Active Mine (non-electronic version) armed/disarmed states.

ii. Scoring:

- Rotating the Arming Device: The team will receive points for disarming the Active Mine.
- Removing the Arming Device: If a team successfully removes the Arming Device, they will be awarded points only if they deposit the Arming Device on the Disposal Platform's base plate.

iii. Other Notes:

- If the Active Mine is rearmed after disarmament (the LED is reactivated, or the indicator stripes are realigned) the team does not lose their points.

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## SKNMDC Pool Event Rules (2021 Season)

### e. Task 2 – The Disposal Vault

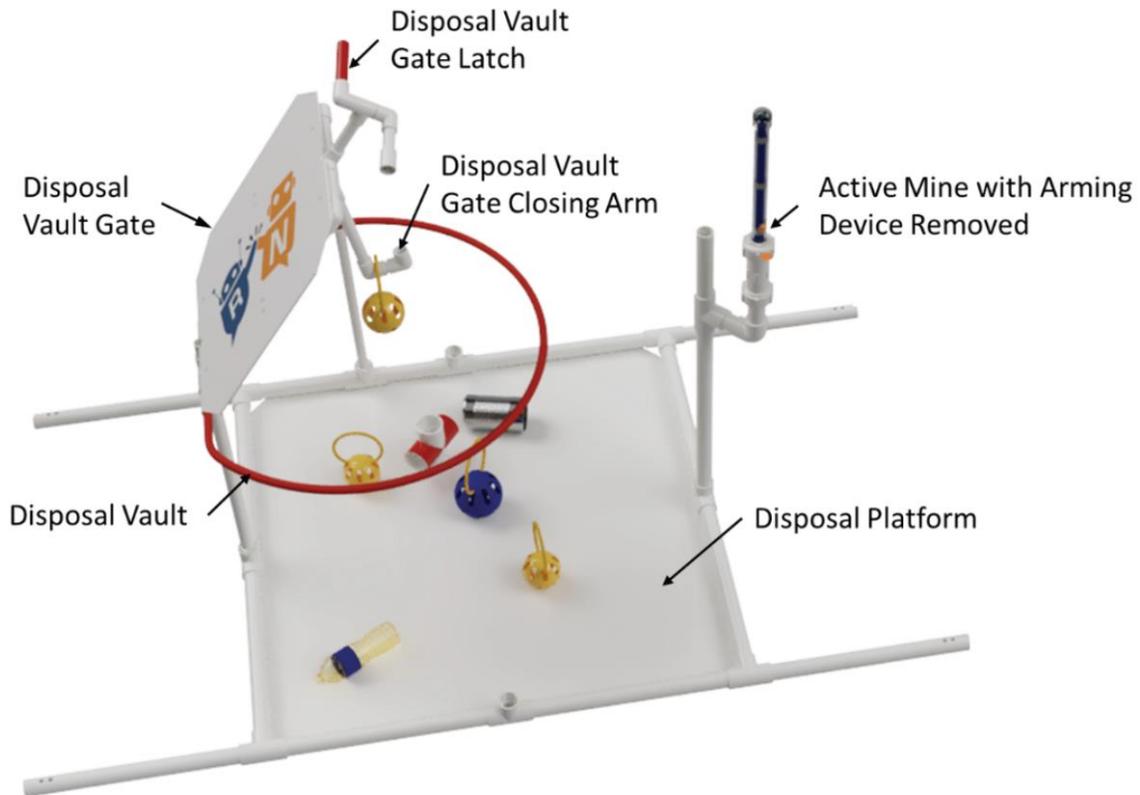


Figure 3 Disposal Platform and Vault

- i. Task Requirement: There are four tasks associated with the Vault.
- The ROV opens the Disposal Vault Gate by pushing or pulling the Gate Latch.
  - The ROV deposits mines (weighted Wiffle ball) and sunken trash into the Vault by dropping the objects into the hoop.
  - The ROV closes Vault Gate by hooking a mine onto the Closing Arm.

- The ROV re-latches the gate by closing the Gate Latch (moving the latch into a position such that the lower pipe is under the hoop).
- ii. Scoring:
- Points will be awarded upon successful unlatching and opening the Vault Gate.
  - Points will be awarded for hooking a mine onto the Closing Arm.
  - Points will be awarded for re-latching the Gate Latch.

## SKNMDC Pool Event Rules (2021 Season)

### f. Task 3 – The Garbage Patch

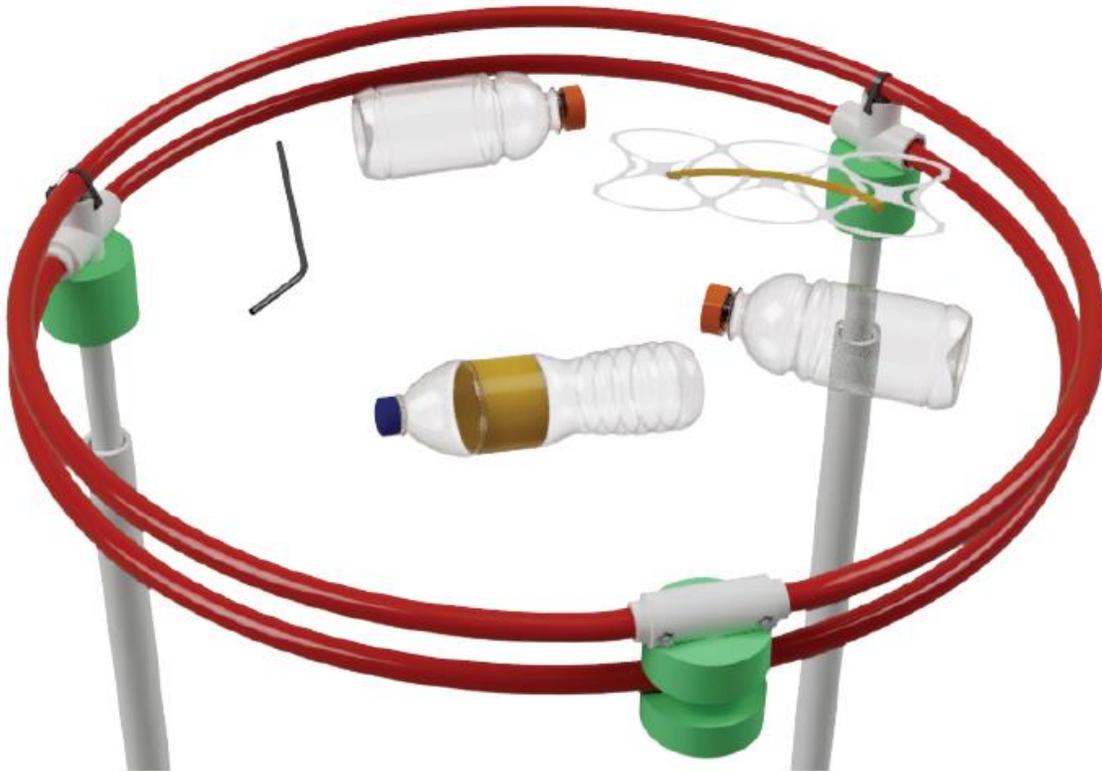


Figure 4 The Garbage Patch

- i. Task Requirement: The ROV must retrieve items from the Garbage Patch Containment ring, transport the items to the pool deck where the team must retrieve the item and deposit it on the pool deck.
- ii. Scoring: Points are awarded for each item removed from the Garbage Patch and successfully retrieved onto the pool deck.

iii. Other Notes:

- Teams will be given a net in the International SKNMDC Challenge and are not allowed to lean over the side of the pool to retrieve the items.
- The ROV must be within one (1) foot of the side of the pool before a team member can retrieve an item.
- The ROV may push or pull items over or under the containment ring. Canisters may be retrieved in any order but may only be retrieved and transported one at a time.