

**Round 1: Maneuvering the Obstacle Course**

This event will consist of a submerged obstacle course, involving 22 to 24-inch diameter rings oriented in different angles and elevations through which the vehicles must travel. The ROV must return to the start position by going back through the course in reverse order. In this round consideration of optimal maneuverability, control, and speed are important design considerations as teams construct their Sea Perch (thruster placement and orientation, tether attachment, buoyancy and ballast etc.) and control box.

1. The ROV enters the obstacle course and maneuvers the vehicle to the end of the course .
2. The ROV then must surface before starting its return run.
3. The ROV must return through the course in reverse order to return to the start and return to the surface.
4. A team receives 1 point for each hoop completed for a total of 10 points.
5. Teams have 10 minutes to make it through the course.
6. Scores for this round will be based on the fastest time for successfully navigating the obstacle course.
7. The vehicle cannot be dragged through the obstacle course via the tether.
8. The judge's stopwatch will begin when the whistle blows and stop when a team makes it back through the first hoop and surfaces on the end where you started.
9. The judge will verify a team made it through the last hoop and broke the surface of the water with the craft. If a team is not able to make it through a hoop it may be skipped.
10. In the event that a vehicle is inadvertently interfered with during a competition, or a malfunction of a vehicle's parts (i.e., the motor) occurs that is beyond the design and construction, the lead pool judge will have the sole authority to provide the team with time to fix their vehicle and to allow them to compete later in the round.

11. Malfunctions will be evaluated on a case-by-case basis.
12. If the tether becomes tangled it does not qualify as an automatic re-do. **All re-dos are at the discretion of the Lead Pool judge.**

### Obstacle Course Layout

