



15th annual

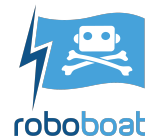
RoboBoat 2022

June 20-26, 2022 | Nathan Benderson Park | Sarasota, FL

Task Ideas

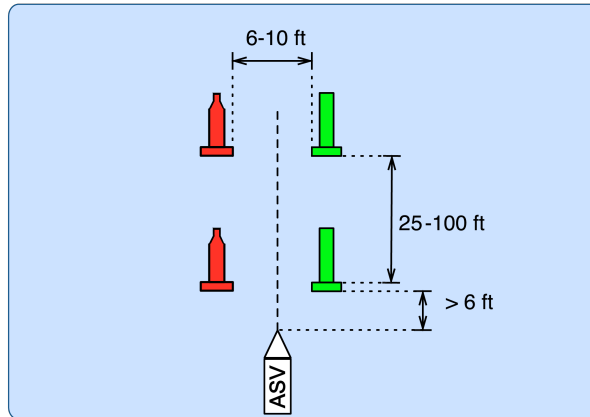
Glossary:

ASV = Autonomous Surface Vehicle



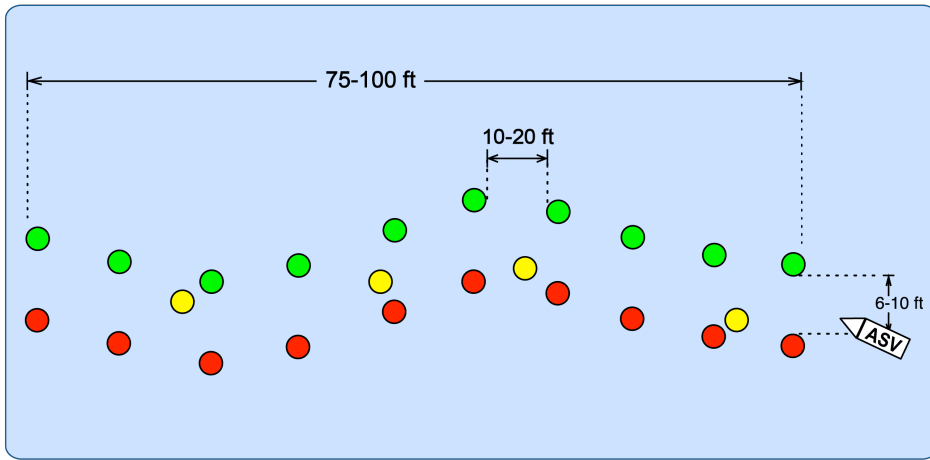
Navigation Channel

- Mandatory before attempting other tasks.
- ASV passes through two sets of gates.
 - Gate: pair of red and green buoys
 - ASV starts autonomous navigation at a minimum of 6 ft. before the set of gates.



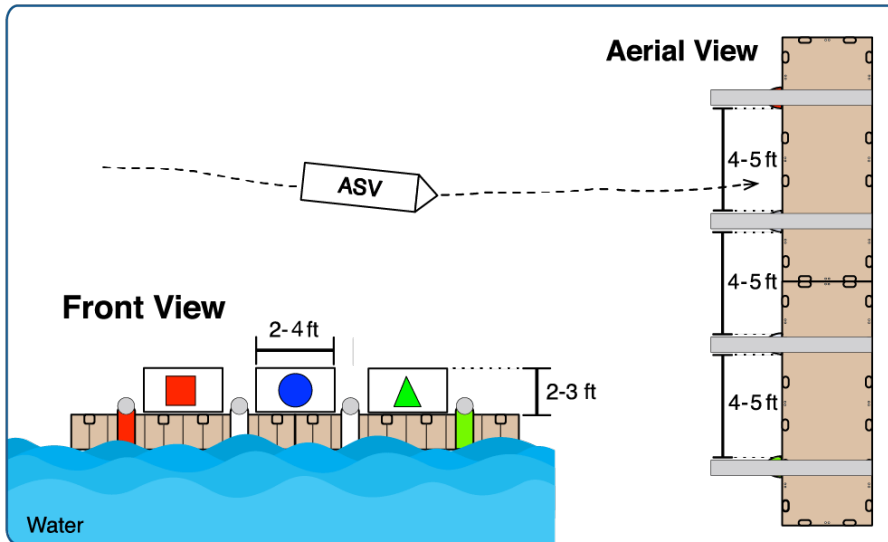
Avoid the Crowds

- ASV passes through between multiple sets of gates and avoids intermittent yellow buoys.
 - Gate: pair of red and green buoys



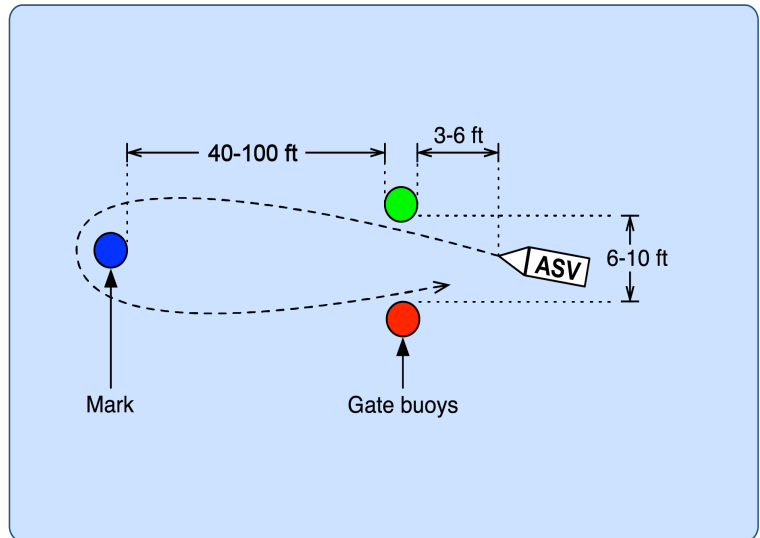
Find a Seat at the Show

- Before the time slot starts, teams are given a “bay of the day” assignment to dock in.
- ASV detects and enters the docking bay corresponding the shape/color of the day.



Snack Run!

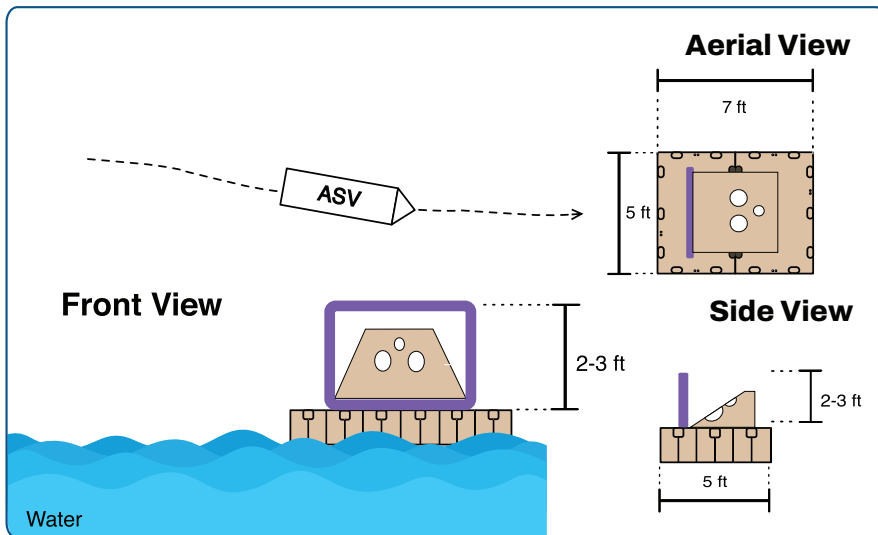
- ASV enters the gate buoys, maneuvers around the mark buoy, and exits through the same gate buoys, as quickly as possible.
- The timer starts when the bow (front) crosses the gate buoys and stops when the stern (back) crosses the gate buoys.
 - Gate buoys: 6-10 ft apart
 - Mark buoy: 40-100 ft from gate buoys



Skee-ball Game

- ASV detects shooting gate.
- Line up and deliver/shoot three balls.
- More points if sunk in smaller hole in back.
- Some points for just making ball on deck.

– Shooting Gate:
purple frame

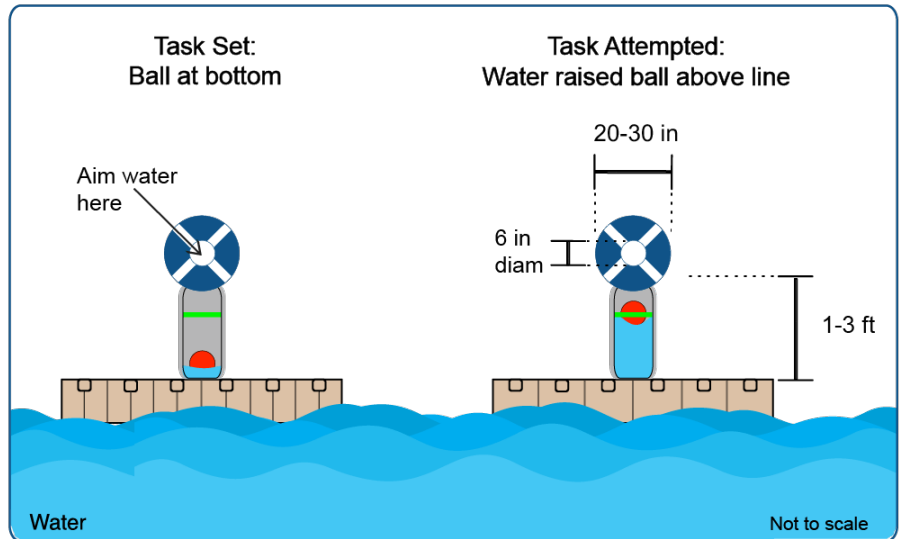


Water Blast

- ASV detects target face.
- Shoot water through the target, raising the ball in the pipe.
 - Goal: shoot enough water in the target to raise the ball above the green line.

– Target: 1-3 feet
above the surface
of the dock

– Target face:
blue/white striped



Return to Home

- ASV returns to dock in autonomous mode and avoids all obstacles and task elements on the way back.
- ASV comes to a full stop within six feet of the dock.