

Marine Debris Objects Guide

2021 SeaPerch Competition Course Component Build Guide

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The details provided here are for marine debris (floating and sunken trash) used in the 2020 SeaPerch Challenge. Recycled items will be used for this Challenge. Items have been selected based on wide availability and it is recommended that SeaPerch Regional Competition Coordinators use similar items.

Debris used for competitions will vary across regional competitions, please check with your SeaPerch Regional Competition Coordinator for information regarding the regional competition you plan to attend.

Teams will have to create innovative designs that are capable of grabbing or capturing a wide variety of objects of different sizes and shapes in order to complete the Mission Challenge.

Floating Trash – There will be five objects will be floating in the Garbage Patch.

6-Pack Ring with ¼" x 6" long Polypropylene Rope threaded through the 6-pack ring.

Drinking Straw

Large Drink Bottle – 16.9 oz water bottle – half filled with water and capped.

Small Drink Bottle (2) – 12 oz. sports drink bottles – half filled with water and capped.

Sunken Trash – There will be three items of sunken waste and two mines on the Waste Platform. Waste objects will have bright colored tape to increase visibility.

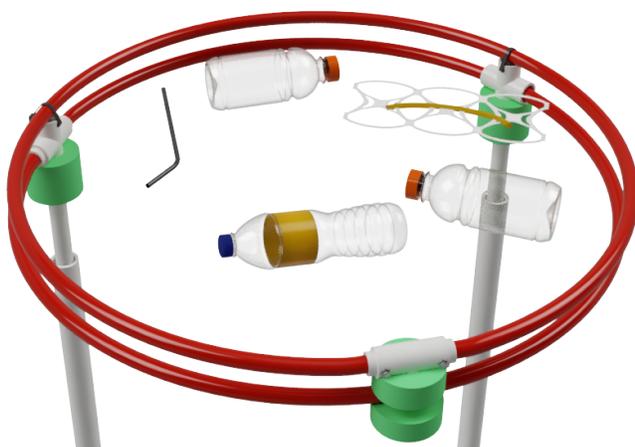
Mines – one large size (i.e. softball size) weighted Wiffle ball, and one medium size (i.e. baseball size) weighted Wiffle ball. Weight = 65 grams water (max).

Food Can – One 16 oz metal food can with lid removed. Weight = 40 grams weight in water.

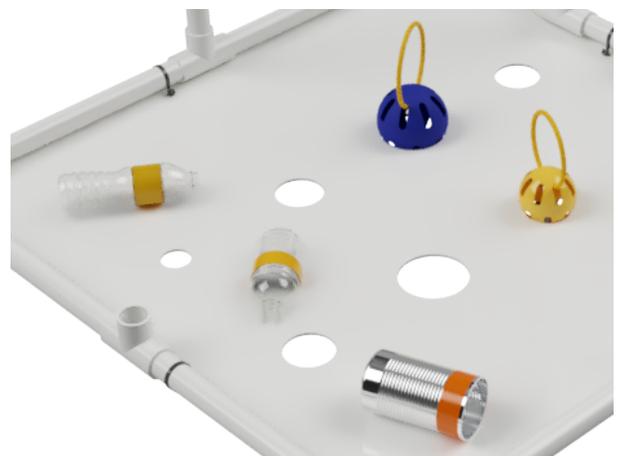
Small Drink Bottle – 12 oz. sports drink bottle. Weight = 45 grams weight in water.

Large Drink Bottle – 16.9 oz water bottle. Weight = 42 grams in water.

Note: Each drink bottle will be weighted with four 1/4" Stainless Steel Washers, 0.055" thick, 1.5" outside diameter (the same washers used in the weighted Wiffle Balls, see <https://www.seaperch.org/2020course> Bill of Materials).



Task 3: The Garbage Patch
(Floating Debris)



Task 4: Sunken Waste