

**CORAL CRUSADERS**

**Coral Crusaders**  
Redmond, Washington  
Distance to Worlds: 2,050km

**Coral Crusaders** is a new unaffiliated Redmond-based team. The company is structured as a limited partnership.



**Dhruv Darbha** (left) is a general partner and worked on mechanical and electrical systems. He is in 11th grade and goes to Redmond High School.

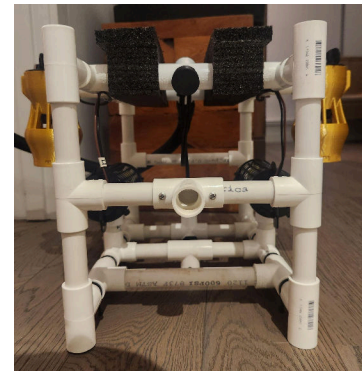
**Dylan Wu** (middle) is a general partner and worked on ROV design. He is in 10th grade and goes to Eastside Preparatory School.

**Kounish Bhattacharjee** (right) is a limited partner, and tether/prop specialist. He is in 9th grade and goes to International School.

**Sylvia Earle** (on the right) is Coral Crusader's first ROV. It costs \$1680. It weighs 3.5kg and sizes at 36cm x 25cm x 30cm.

#### Key Features:

Sylvia Earle is a very clean ROV, with 4 DC motors, 2 cameras, and 2 spots for interchangeable tools. Tools can be locked and removed by spring clips to ensure quick changes on deck. The tether is sheathed by split tech-flex, holding all the wires and circular PE foam for buoyancy. We have endeavored to make the design as clean as possible - for example by running wires through the PVC frame. Screws are put in key locations. We have opted not to use onboard electronics as we are a new team.



#### Safety Features:

Sylvia Earle has a strong strain relief, utilizing multiple layers of sheathing and permanent self-bonding silicon tape which can hold at least 5 times the weight of the ROV out of the water. It has two 3-D printed motor covers and two made of garden netting. The clean design of the ROV and video system helps prevent possible accidents and gives it a very professional look.

In total, Coral Crusaders spent 230 hours building Sylvia Earle.