Our SeaPerch is unique because: (100 words MAX)

Our SeaPerch is smaller and faster than normal SeaPerches because we used a compact and slim design that allows the SeaPerch to easily balance and maneuver through the water. Unlike most teams, we used a 3D printed hook that was designed to be able to pick up the rock sample that doesn’t have a loop to grab on to.

Our biggest takeaway this season relates to designing the SeaPerch. There were multiple problems with the initial design we were using as a reference. For example, it was very tilted, which made us use a lot of weights, or it would sink often when the floats took in water. To fix these issues, we added a third float which lifted the back and helped with the tilt, and we increased the buoyancy of the SeaPerch so even after taking in water, it would still float.

SeaPerch Design Overview: (100 words MAX)

We created a hydrodynamic design that is 3-4 times smaller than the recommended SeaPerch design. With this modification, we were able to easily fit through tight spaces giving us a large time advantage. Unlike most SeaPerches, we did not put our Up and Down motor at the center of mass, and instead put it at the front allowing us to tilt the SeaPerch up or down to make it move while also going forward. We are able to save around 10-15 seconds on the obstacle course thanks to this design change.