Total Mass: 2155g

Total volume: 32.887in^3

Total Mass of Displaced Water: 539g

Effective Mass in Water: 1616g

Effective Force: 15.85N

LIFT CAPACITY: 15.85 Newtons

	Mass	Volume
Weight 1	620g	15.5in^3
Weight 2	380g	8.25in^3
Weight 3	550g	4.257in^3
Weight 4	615g	4.88in^3

We calculated the lift capacity of our ROV by attaching a basket to our ROV and incrementally adding weights until the ROV could not rise in the water. We determined that the ROV was unable to lift itself when four weights were added to the basket.

We weighed and measured the volume of each weight. We then used the volume measurements to calculate the mass of the water they displaced. We subtracted the mass of the displaced water from the mass of the weights in order to calculate the effective mass of the weights when submerged in water.

Once we had the effective mass, we could calculate how much force was required to lift it at sea level (1G). We determined that our ROV is capable of lifting 15.85 Newtons of cargo.
Our ROV does not have any additional lifting mechanisms beyond our two Blue Robotics T200 thrusters mounted vertically.