Strengths of the project

* Using the latest materials, as well as using Hoberman sphere design, we can create a significantly larger living and work space for crews with the same amount of fuel as payloads today.
* The ship is multipurpose. It can be used for exploring intraspace to mining to research.
* The frame of the spheres allows for flexibility in workspace design and uses.
* Light solar sails will allow for even less weight and reusability.

Size of the ship

The payload would be 35 ft./10.668 meters tall (11 ft./3.35 meters taller than the current Dragon payload) with a width of 12 ft./3.65 meters (the current width)

Materials

Spheres

* Patient for sphere <http://www.google.com/patents/US4942700>
* Covering polymer Aerogel sheets – high strength polymer from Glenn Research Center, OH
* Body of the sphere would be made from Projection micro-stereolithography (MIT and Lawrence Livermore National Laboratory). The materials would be made of the metal, as opposed to the ceramic materials

Rocket

* Falcon Heavy by Space X. With the ability to lift into orbit over 53 metric tons (117,000 lbs.)--a mass equivalent to a 737 jetliner loaded with passengers, crew, luggage and fuel
* If NASA could find the plans, we would use a Saturn V – but who knows where those are.

Deployment of spheres

* There would be a series of pulleys and weights that would pull the spheres out of the payload as well as slide the slave for the payload apace to become habitable. Once the spheres were fully deployed, internal configurations can be put into place ass needed by the crew. Because the entire thing is connected and habitable, the crew is able to use the entire space for their needs.