

NASA and DARPA have gotten together to test spacebound refueling and repairs using a pair of test satellites, ASTRO and NextSat:

Service via automaton

The \$300 million Orbital Express vehicles come in two forms: the smaller target NextSat and the larger service spacecraft ASTRO.

Short for Autonomous Space Transport Robotic Operations, the ASTRO servicing satellite is a 2,100-pound (952-kilogram) vehicle laden with 300 pounds (136 kilograms) of hydrazine propellant and measuring about six feet (1.8 meters) tall and wide. Its robotic arm is designed to either latch onto NextSat and pull it close for a manual docking, or transfer replacement hardware, such as a battery, from ASTRO to the target vehicle. More about the story here