

Download Space Tethers And Space Elevators

Space tethers are long cables which can be used for propulsion, momentum exchange, stabilization and attitude control, or maintaining the relative positions of the components of a large dispersed satellite/spacecraft sensor system. Depending on the mission objectives and altitude, spaceflight using this form of spacecraft propulsion is ...Tensile structures for non-rocket spacelaunch are proposals to use long, very strong cables (known as tethers) to lift a payload into space. Tethers can also be used for changing orbit once in space. The single most difficult task in building the Space Elevator is achieving the required tether strength-to-weight ratio -- in other words, developing a material that is both strong enough and light enough to support the 60,000 mile long tether. Ben Shelef, CEO of the Spaceward Foundation (host of the Space Elevator Games) responded to a question about how strong a space elevator tether has to be.