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SPACE ELEVATOR RESEARCH

**Abstract**

The International Space Elevator Consortium (ISEC) is preparing a set of proposals designed to attract funding for professional research into the topics considered most important to the realization of the dream. The most important topics are the tether material and the design of the tether climber. Finding a suitable tether material is the greatest challenge. Although carbon nanotubes are promising, they have not yet been demonstrated in the required length and strength, so other candidate materials are also being considered. The main objective of research on tether climbers is to keep the mass low enough. In all, 18 major topics have been identified. These include tether dynamics and electrodynamics, the radiation environment in space, and dealing with the effects of the Earth's atmosphere.