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ASTEROID MINING: KEY TO SPACE ECONOMY

Abstract

Mining of an asteroid is not an asset for a single country, but it is an asset for the whole World. For the past few decades, mining of celestial bodies has been an essential aspect for almost all space agencies. As NASA's Voyager 1 and Voyager 2 approach to the verge of exhausting its fuel, they may stop sending signal soon. Due to this, the space crafts can constantly move without igniting its Radio isotropic Thermoelectric Generators. This paper would discuss about the resources available from near - Earth Asteroids, as well as the technical aspects of possible mining project designs, including a survey of mission plans, mining and extraction techniques that may be used. The celestial objects are likely targets for resources to support space industrialization, as they appear to be the least expensive source of certain needed raw materials. Furthermore, exploitation of asteroids for precious metals and semiconducting elements is a possible environmentally friendly remedy for impending terrestrial shortages of these resources. Thus, this paper gives a possibility to mine and extract resources which offers the possibility to revolutionize supply and availability of many resources vital for human civilization.