A New Maneuver for Efficiently Achieving Escape Trajectories in Space Exploration

Docket: UAH-P-08016

Technology

Researchers at UAH and the Marshal Space Center have developed a new maneuver to escape the gravitational pull of a central body. The maneuver improves efficiency considerably for a wide range of missions of interest in space exploration and scientific investigation. A clear delineation of when the maneuver is more effective is given, as are methods to extract the most advantage when using the maneuver. This maneuver can enable exploration of the outer solar system, near interstellar space, and crewed missions to Mars and beyond.

For example, this maneuver allows travelling 1000 astronomical units (AU) within 50 years in the interstellar precursor mission (i.e the life time of an average engineer) while the conventional method will deliver a spacecraft this distance in 110 years.

Applications

- Lifting an automobile during maintenance tasks.

Advantages

- Reduces user exertion and the time required for a user to raise one side of their vehicle.

Status

State of Development: Prototype.
Licensing Status: Available for licensing.
IP Status: Proprietary.

Contact

UAHuntsville Office of Technology Commercialization
301 Sparkman Dr.
Von Braun Research Hall E-39
Huntsville, AL 35899-0001

E-mail: otc@uah.edu  Phone: (256)-824-6620  Fax: (256)-824-6801