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(54) **MAGNETIC SUSPENSION SYSTEM WITH INTEGRABLE PROPULSION**

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(76) **Inventor: Phillip A. Studer, Silver Spring, MD (US)**

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Correspondence Address:
KNOBBE MARTENS OLSON & BEAR LLP
2040 MAIN STREET, FOURTEENTH FLOOR
IRVINE, CA 92614 (US)

(57) **ABSTRACT**

A method and system for magnetically levitating a load is disclosed. One embodiment of the invention is a system for magnetically levitating a load, the system comprising at least two lift generators, each comprising a source of magnetic flux configured to induce a magnetic flux in a rail via a leg on either side of the rail, at least one magnetically permeable beam connecting the lift generators, and control circuitry configured to generate and modulate a magnetic current flux through the crossbeam so as to maintain gaps between the legs and rail, wherein the gaps defined by the legs on either side of the rail are of unequal size.

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