

Economical and No Hassle Linear Motor Design

TECHNOLOGY DESCRIPTION

The invention relates to a linear motor, especially to a slotless type permanent magnet linear motor to obtain the maximum displacement within a certain design.

TECHNOLOGY FEATURES

This design concept reduces the longitudinal size of the motor which reduces the production cost as well. It can be applied to factory automation, agriculture industry, automotive industry and the like.

ADVANTAGES

- reduces the production cost
- easy to apply

INDUSTRY OVERVIEW

Prospect Industry: Auto Machine and Linear Motor Suppliers

Linear motors are widely used all over the world. One of the major uses of linear motors is for propelling the shuttle in looms, in sliding doors and various similar actuators. Also, they have been used for baggage handling and large-scale bulk materials transport solutions. The combined ball screw and linear guide markets are estimated to be worth \$3.8 billion, nearly 45% of which comes from large, established machine making tools sectors and semiconductor production equipment. Suppliers are finding new markets and new applications in areas such as pharmaceutical production, agriculture, food and drink processing. Another area of growth is in new markets, such as production machinery for lithium-ion batteries and photovoltaic panels. One of the biggest factors driving growth in the linear motion market, most of which applies the use of linear motors, is demand for industrial production machinery. This product is expected to vend in existing local linear motor suppliers. Potential distribution channels would be personal selling and direct marketing. Europe, Japan, North America are established regions for industrial production machinery. Demand for industrial machinery from China benefits these established regions of production and countries such as Taiwan, South Korea as well as China itself. There are large markets for fluid actuation in the established markets such as Europe, Americas and Japan which offers a big potential replacement market for linear motors.



Prof. Dr. Ishak Aris
Faculty of Engineering