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**MULTI-LAYER MEANS OF GUIDING A LARGE DISPLACEMENT
MICROELECTROMECHANICAL SYSTEM**

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Large-displacement MEMS are susceptible to motion in off-axis directions, or motion deviating from the desired path of the device. The multi-layer means of guiding large displacement devices prevents the shuttle from moving away from the substrate, and effectively constrains the transverse motion; the guiding device does not inhibit the motion necessary for proper function of the device. The novelty of the device lies in the placement of the guide; positioning the guide inside of the the shuttle constrains the device without increasing the footprint size.

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