

ABSTRACT OF THE DISCLOSURE

The present invention provides a robot assembly for transferring objects, namely substrates, through a process system. A robot linkage is provided to a multi-plane, multi-arm robot assembly driven by two motors. In one embodiment, a linkage is provided which is driven by two magnetic retaining rings. In another embodiment, a linkage is provided which is driven by three magnetic retaining rings, two of which are coupled to the same motor. Both embodiments enable a substrate shuttle operation to be performed wherein a pair of substrates can be shuttled into and out of a selected chamber without having the robot assembly rotate in the transfer and by actuation of only two motors.

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