

A Planar Positioning System And Method of Using The Same

ABSTRACT OF DISCLOSURE

A positioning system having a flat base comprising (i) a X-axis assembly having a X-axis linear actuator means arranged orthogonal to the Y-axis; (ii) a Y-axis assembly having a pair of Y-axis linear actuator means mounted onto the flat base forming a H-configuration; (iii) a Z-axis assembly having an aerostatic bearing mechanism that floats on thin film of externally pressurized air on top of the flat base; and a θ -axis actuator anchored from the X-axis to drive the Z-axis assembly which carries a workpiece, wherein the Z-axis assembly is rotated with the rotary axis for the θ -axis perpendicular to the flat base.

10 (Fig. 1)