

Abstract of the Disclosure

5 The present invention generally provides a robot that can transfer a workpiece, such as a silicon wafer, at increased speeds and accelerations/decelerations. More particularly, the present invention provides a robot wrist for mechanically clamping a workpiece to a workpiece handling member of an extendable robot arm. The wafer clamp selectively applies sufficient force to center the workpiece and prevent slippage and damage to the workpiece during rapid rotation and radial movement of the handling member. In one embodiment, a clamp for securing silicon wafers uses two independent clamp fingers to position and hold the wafer with minimal particle generation and wafer damage. The clamp is designed so that wafers are normally clamped except during full extension of the wafer handling member to deliver or pickup a wafer.

0

