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(54) Title: METHOD AND SYSTEM FOR DETERMINING A WORKPIECE LOADING LOCATION IN A CNC MACHINE WITH A ROBOTIC ARM

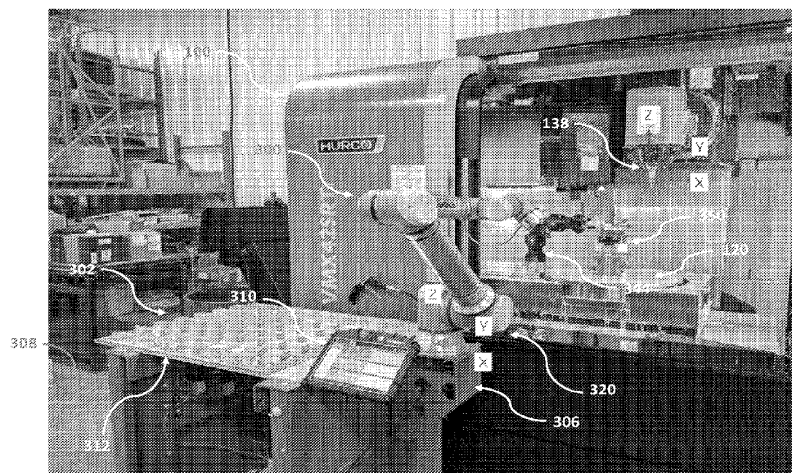


FIG. 3

(57) Abstract: A system is provided for determining a loading location of a workpiece relative to a holding fixture, comprising: a robot including a sensor; and a controller coupled to the robot and configured to activate the robot to grip the workpiece; enable a free-drive mode to permit an operator to move the gripped workpiece to a starting location; execute a center location routine including causing the robot to: move in a first direction until the sensor senses contact with a first surface of the holding fixture; move in a second direction until the sensor senses contact with a second surface; move in a third direction until the sensor senses contact with a third surface; and compute a three-dimensional center point of the holding fixture representing the loading location of the workpiece using the first, second and third sensed positions of contact.

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