

ABSTRACT

A system for assembling mosaic artwork by placing mosaic pieces on a mosaic baseplate may include at least one vibratory feeder bowl with at least one respective robotic arm landing pad, at least one mosaic piece selector, a robotic arm, a vision sensor, and a controller. The robotic arm may include an end effector including a pickup head with a stopper guide for acquiring at least one mosaic piece from a plurality of mosaic pieces from a robotic arm landing pad in a predefined orientation. Each side of the stopper guide may include four retractable side guides. Each side guide may be capable of retracting during the snapping of the at least one mosaic piece onto at least one stud at an identified position on the mosaic baseplate upon contacting a previously positioned mosaic piece on studs adjacent to the at least one stud at the identified position.

FIG. 2