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(54) Title: SAMPLE POSITIONING SYSTEM AND METHOD

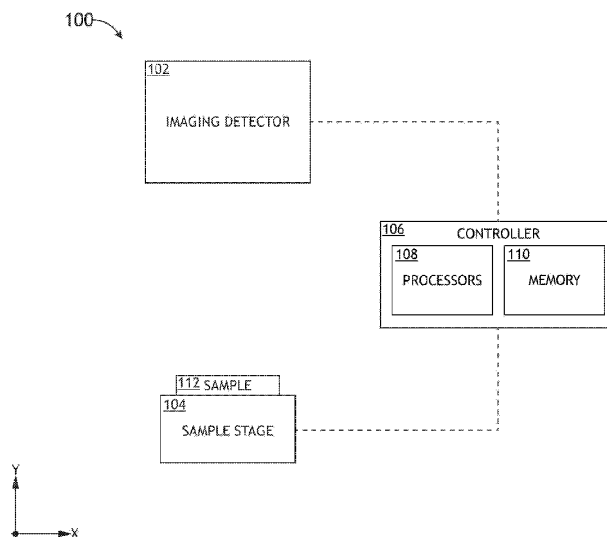


FIG. 1A

(57) Abstract: A sample positioning system is disclosed. The system may include an imaging detector. The system may further include a controller communicatively coupled to the imaging detector and a sample stage, the controller including one or more processors configured to execute program instructions causing the one or more processors to: receive a current position of a field of view of the imaging detector; receive a target position of the sample; receive locations of reference features along a path; direct the sample stage to translate the sample along the path; direct the imaging detector to capture images of the reference features along the path; determine positioning errors of the sample stage along the path based on the images of the reference features; and adjust at least one of a velocity of the sample stage or the path to the target location based on the positioning errors during translation.

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