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(71) Applicant: **THE JOHNS HOPKINS UNIVERSITY**
[US/US]; 3400 North Charles Street, Baltimore, Maryland
21218 (US).

(72) Inventors: **OLDS, Kevin C.**; 3100 St. Paul Street, Apartment
602, Baltimore, Maryland 21218 (US). **TAYLOR,
Russell H.**; 2 Riverview Road, Severna Park, Maryland
21146 (US).

(74) Agent: **DALEY, Henry J.**; Venable LLP, P.O. Box
34385, Washington, District of Columbia 20043-9998
(US).

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(54) Title: STEADY HAND MICROMANIPULATION ROBOT

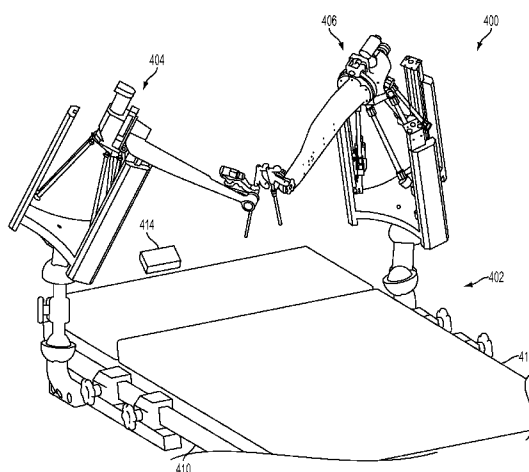


FIG. 20

(57) Abstract: A cooperative-control robot includes a base component, a mobile platform arranged proximate the base component, a translation assembly operatively connected to the base component and the mobile platform and configured to move the mobile platform with translational degrees of freedom substantially without rotation with respect to said the component, a tool assembly connected to the mobile platform, and a control system configured to communicate with the translation assembly to control motion of the mobile platform in response to forces by a user applied to at least a portion of the cooperative-control robot. The translation assembly includes at least three independently operable actuator arms, each connected to a separate position of the mobile platform. A robotic system includes two or more the cooperative-control robots.





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