US008336421B2

(12) **United States Patent**
Lusk et al.

(10) **Patent No.: US 8,336,421 B2**
(45) **Date of Patent: Dec. 25, 2012**

(54) **SPHERICAL THREE DEGREES OF FREEDOM PLATFORM**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1499 days.

(21) Appl. No.: **11/496,748**

(22) Filed: **Jul. 31, 2006**

(65) **Prior Publication Data**

US 2007/0028714 A1 Feb. 8, 2007

Related U.S. Application Data

(60) Provisional application No. 60/704,068, filed on Jul. 29, 2005.

(51) **Int. Cl.**
B25J 17/00 (2006.01)

(52) **U.S. Cl.** **74/490.08**

(58) **Field of Classification Search** 74/490.07, 74/490.08, 490.09, 490.01; 248/188.1, 678, 248/346.01; 310/309; 359/290, 291, 292, 359/295

See application file for complete search history.

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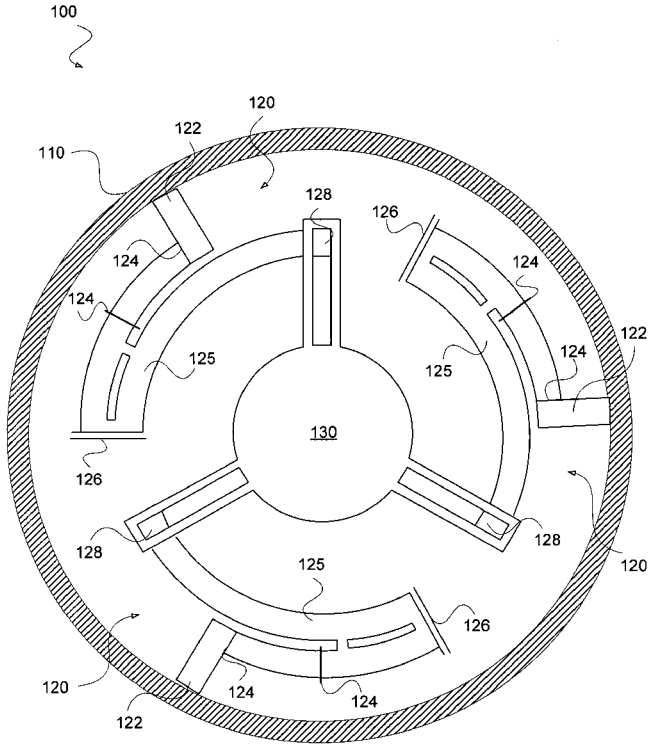
(57) **ABSTRACT**

A platform actuator includes a substrate, a first, a second, and a third spherical input slider-crank mechanism, wherein each of the first, second, and third spherical input slider crank mechanism is coupled by a first end to said substrate, and a platform is coupled to a second end of each of the first, second, and third spherical input slider-cranks. According to one exemplary embodiment, each of the first, second, and third spherical input slider-crank mechanisms are configured to convert in-plane motion to out-of-plane motion.

21 Claims, 13 Drawing Sheets