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(54) **SERPENTINE ROBOTIC CRAWLER FOR PERFORMING DEXTEROUS OPERATIONS**

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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 0 days.

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B25J 5/005 (2013.01); **B25J 5/007** (2013.01);
B25J 9/0087 (2013.01); **B25J 13/025**
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(58) **Field of Classification Search**

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See application file for complete search history.

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(57) **ABSTRACT**

A serpentine robotic crawler having multiple dexterous manipulators supported about multiple frame units. The frame units are connected via an articulating linkage at proximal ends wherein the articulating linkage is capable of positioning the frames into various configurations. Dexterous manipulators are coupled to distal ends of the frame units and are positionable via the articulating linkage and articulating joints therein into various positions about the frame ends. The configurations and positioning of the dexterous manipulators allows the robotic crawler to perform coordinated dexterous operations.

26 Claims, 14 Drawing Sheets

