

Remote Manipulator with Force Feedback and Control

This invention relates to remote manipulators, which provide force feedback to a user. This design of the haptic interface allows simultaneous control over the maximum force exerted by the manipulator member as well as the transmission ratio between the operating member and the manipulator member.

The tunable spring design in this invention provides features that are improvements over the high torque actuators used in other remote manipulators that provide force feedback.

Applications

Remote manipulators have application in wide variety of systems, including the graspers, which could be used in surgery or for the remote manipulation of delicate parts.

Competitive Advantages

- Provides delicate handling of certain tissues to minimize surgical trauma.
- Adaptable to various surgical instruments.

Development Stage

A working prototype is being developed and tested.

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Intellectual Property Status

U.S. Patent No. 6,219,589 issued
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Business Opportunity

Available for exclusive or non-exclusive licensing.

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