

# Haptic Interface for Surgical Manipulator

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## Goals:

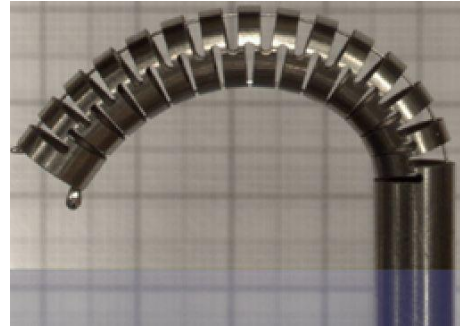
- Create an intuitive control interface for the JHU/APL snake manipulator
- Integrate force feedback

## Significance:

- Traditional total hip arthroplasty procedures cover <50% of lesion
- With control method for snake, may help decrease OR time, exposure to radiation, increase volume coverage

## Results:

- Initial trials inconclusive but preliminary trials with improved system showed decreased task completion time, higher accuracy with PHANTOM® Premium haptic device



*Bent manipulator*



*PHANTOM haptic device*



*Touching target makers*

# Touching Targets with Manipulator

