

# Laparoscopic Tool Redesign

 Hand Tool Interaction

Laparoscopic surgery requires surgeons to perform complex procedures using a standardized set of tools. Most tools, including the common forceps, do not currently provide surgeons with comfortable, intuitive control. New laparoscopic tool designs are necessary to provide surgeons with a mechanism to safely and effectively provide the most innovative medical treatment.

With coordination from M. Susan Hallbeck, Ph.D., in the Department of Industrial Engineering University of Nebraska-Lincoln, researchers at UNMC are currently developing a new laparoscopic tool that will provide an ergonomically correct control system, an articulating tip, and force feedback.