Researchers at the University of South Florida have developed instrumentation and a protocol for a novel approach to colectomy, a colon cancer treatment.

Colon cancer is the third most common cancer in both men and women in the United States. Resection of the large intestine is the most common method of treatment for colon cancer. Currently, many techniques are being developed, including the laparoscopic-aided colectomy. This is when the surgeon uses laparoscopic instruments to perform the bulk of the operation. When the resected portion of colon is ready to be removed, an incision is made in the abdomen and the colon is eradicated. This operation spares the patient the large incisions that were required prior to the use of laparoscopic instruments. However, this surgery still requires a 12 cm incision for specimen removal. This highlights the need for a less invasive surgical technique to treat colon cancer.

USF researchers have created a method of resecting a luminal structure, such as a colon, which obviates the need for large incisions. The instrumentation disclosed herein addresses the need to make an incision in the abdomen in order to remove the resected colon. Rather than subject the patient to any incision other than the small, 1-2 cm, incisions required of the laparoscopic instruments, the invention includes instrumentation and associated methods that allow the resected colon to be removed through the anus. By avoiding a large incision the incidence of wound infections is lessened which helps the patient to recover faster and reduces the trauma to the patient in the operating room.

ADVANTAGES:
- Minimally-invasive
- Fewer complications
- Shorter hospital stay
- Low chances of incisional hernia

Minimally Invasive Surgical Device

Block Diagram of the Surgical Apparatus