



### Applications

- Training of medical students and residents in basic surgical skills
- Laparoscopic, minimally invasive surgery trainer
- Training for new medical procedures
- Training in gynecological surgery

### Advantages

- More realistic, high-quality simulator
- Sensorized arteries and veins
- Cost-efficient
- Compact and Portable

### Inventors

[Dianne Pawluk, Ph.D.](#)  
[Ellen Brock, MD, MPH](#)  
[Peter Pidcoe, PT, Ph.D.](#)  
Christopher Morosky, MD

### Contact

Wendy M. Reid, Ph.D.  
Licensing Associate  
[wmreid@vcu.edu](mailto:wmreid@vcu.edu)  
Direct 804-827-2213

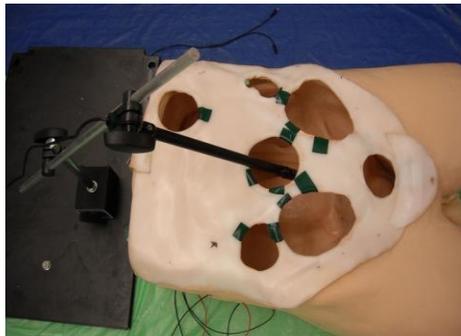
### Market Need

Laparoscopic, or minimally invasive surgery, has become very popular with both patients and insurance companies due in part to shortened post-operative recovery times. Since its introduction and evolution, there have been numerous concerns related to surgical training in this field. The existing laparoscopic simulators or box trainers are either extremely expensive or do not mimic realistic surgical scenarios and to date no laparoscopic simulator for gynecological surgery has been developed.

### Technology Summary

This is a laparoscopic surgery simulator for gynecological surgery training. This simulator takes into account the constraints of space and other issues with laparoscopic surgery, and accurately mimics gynecological organs and the puncture properties of the tissues.

This simulator also provides sensorized arteries, veins and ureters to indicate when too much pressure is being applied. Moreover, this simulator allows for the use of real surgical instruments, making it more realistic than currently available training boxes. In addition to the training box, a simulated laparoscope with a pivoting head has been developed for training at varying angles. This is a cost-effective simulator that eliminates the need for multiple simulated laparoscopes. Taken together this simulator offers surgeons a high-quality, realistic and cost-effective training box.



### Technology Status

This technology is available for licensing to industry for further development and commercialization.