

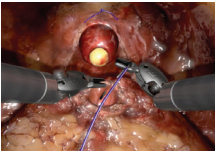


RobotiX Mentor™





A Complete Educational Curriculum



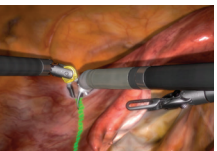
THE ONLY ROBOTIC SIMULATOR TO PROVIDE ADVANCED CLINICAL PROCEDURES TRAINING

- Practice procedural steps in an anatomical environment
- Demonstration of a variety of techniques and decision making
- Simulation of complications and injuries



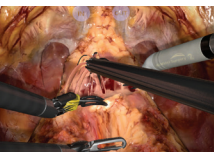
TRUE-TO-LIFE TRAINING ENVIRONMENT

- Mastery of console and instruments
- Visual cues to tissue manipulation enable surgeons to learn to 'feel' with their eyes
- Realistic simulation of tissue response to instruments and tension



EDUCATIONAL FEATURES

- Developed in collaboration with the medical community to ensure accuracy
- Step-by-step colorful procedural guidance and real-life patient videos



TEAM TRAINING (OPTIONAL)

- Practice collaboration between the robotic surgeon and the surgical assistant
- Add the LAP Mentor Express to enjoy the most comprehensive laparoscopic surgery simulator



EFFICIENT SIMULATION CURRICULUM MANAGEMENT

- Web-based management system
- Customizable curriculum, proficiency-based training, objective reports and video debriefing

RobotiX Mentor™ is the only VR training simulator to provide a comprehensive curriculum including complete robotic clinical procedures with true-to-life graphics and tissue behavior.

Value of RobotiX Mentor basic skills and procedural training

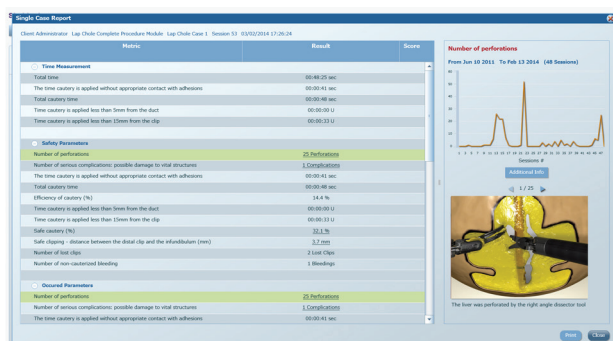
- Basic robotic training was defined and validated: "Construct, face and content validity were established for the RobotiX Mentor and feasibility and acceptability of incorporation into surgical training was ascertained." Whittaker et al: *Validation of the RobotiX Mentor Robotic Surgery Simulator. J Endourol.* 2016 Jan 21.
- "Training with procedural VR simulators proven to be superior to basic VR simulators, leading to improved performance in the operating room." Reznick et al *Surgical Education Annual Meeting, 2009*
- "Virtual simulation advances provide anatomically accurate surgical environments that promote a shortened learning curve and patient safety." Gargiulo, A. R. *OBG Management Supplement, October 2015.*

Collaboration with professional societies

- European Association of Urology (EAU): RobotiX Mentor simulator to support the ESU/ERUS Hands-on training in Robotic surgery courses
- Collaboration with the Fundamentals of Robotic Gynecologic Surgery (FRGS) group to develop the Hysterectomy Tasks Module
- Fundamentals of Robotic Surgery (FRS) Curriculum: The 3D Systems software is part of the multicenter validation

MentorLearn Simulator Curricula Management System

3D SYSTEMS' MULTIDISCIPLINARY SIMULATORS EFFORTLESSLY INTEGRATE INTO YOUR PROGRAM CURRICULUM

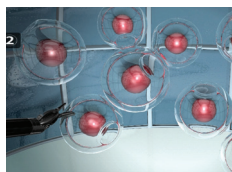


- Customizable curriculum incorporating training and didactics
- Easy and efficient administration of simulator users
- Online learning courses and video-based content
- Proficiency based hands-on training
- Performance reports with learning curve graphs
- Recorded videos of the simulation sessions for debriefing

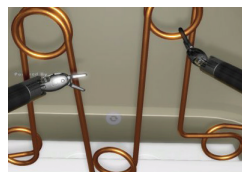
RobotiX Mentor Curriculum

Surgeons of all expertise levels across diverse medical specialties have an opportunity to efficiently practice the required robotic skills within a whole-procedure VR training curriculum.

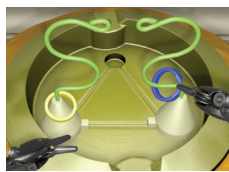
ROBOTIC SKILLS



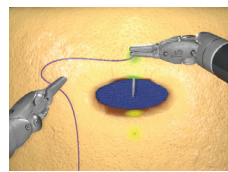
Robotic Basic Skills



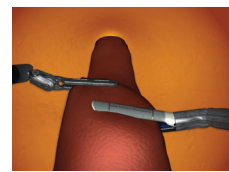
Essential Skills
(based on RTN, FLS)



Fundamentals of
Robotic Surgery (FRS)



Single-site and
Multiport Suturing



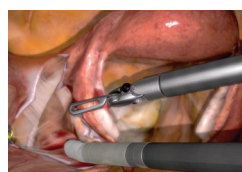
Stapler

PROCEDURAL TRAINING

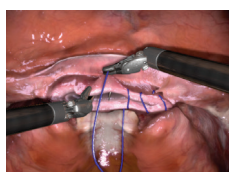
Gynecology



Hysterectomy
Procedural Tasks
(FRGS)

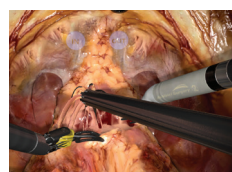


Hysterectomy Procedure



Vaginal Cuff Closure

Urology



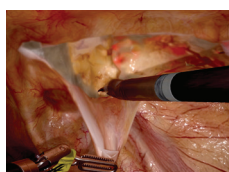
Radical Prostatectomy

Thoracic



Lobectomy

General Surgery



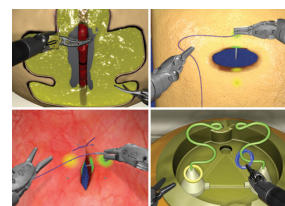
Inguinal Hernia

Colorectal

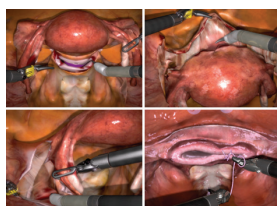


Right Hemicolectomy

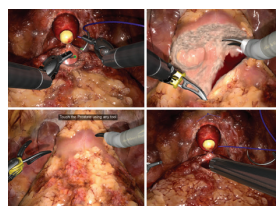
Courses



Recommended Basic
Training Curriculum



Fundamentals of Robotic
Gynecologic Surgery
(FRGS) Curriculum



Urology Advanced
Training Curriculum



Nontechnical Skills to
Enhance Patient Safety
by CAMLS and Team
Training Course



Thoracic Course

Request a demo or more information at healthcare@3dsystems.com

Simulator Platform

- Authentic representation of the surgeon console workspace, master controllers and pedals
- Realistic representation of robotic surgery hand movements
- Accurate robot kinematics, tools and workspace
- Adjustable elements provide a comfortable and ergonomic working position
- A 3D HD stereoscopic personal display providing life-like graphics
- Instructor monitor can be positioned separately for best group viewing



Flexible training solutions for robotic surgeons and bedside assistants



"Trainees at Karolinska University Hospital have the opportunity to practice both robotic basic skills and full advanced procedures using the RobotiX Mentor. We are pleased to collaborate with 3D Systems to develop the first simulation training module for the RARP full procedure.

We believe that once this training module is successfully validated, it has the potential to greatly impact robotic training in the future."

Peter Wiklund, MD
Professor of Urology
Karolinska Institute



"The RobotiX Mentor system allows us to practice both basic and advanced robotic surgical skills in a setting outside of the operating suite. This provides convenience to both attending and resident surgeons alike."

Costas D. Lallas, MD
Thomas Jefferson
University Hospitals
Dr. Robert and Dorothy Rector
Clinical Skills and Simulation Center



"I perform robotic radical prostatectomy twice a week in our hospital. I use the RobotiX Mentor every day to practice urethrovesical anastomosis; this practice has decreased the time for me to complete the anastomosis in the simulation, and in my opinion the RobotiX Mentor VR practice improves my OR performance with steadfast confidence."

Yuji MAEDA, MD
Urologist, Kanazawa, Japan

Healthcare Solutions

3D Systems is a pioneer for healthcare solutions that improve outcomes which benefit both patients and surgeons. Our global team works with customers to help navigate technologies and provide support for surgical planning, training, device design, personalized medical technologies and 3D printing. We are dedicated to helping medical professionals train for, plan and practice complex medical procedures.

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