

ANALYTIC

The world's only laparoscopy simulator with state-of-the-art training analysis software. To maximize training effectiveness thanks to ultra-precise real-time analysis. Analytic brings laparoscopic simulation to a higher level and accelerates results due to networking capabilities and Mentor Desktop Server feature. It boosts skills and improves the learning curve allowing for progress monitoring on an ongoing basis.

① Training Time

- Every training scenario has a custom training time
- The user should attempt to complete the procedure inside the operating time

② Economy of movement

- Distance travelled - the total distance travelled by the tips of the tools used in the training
- Hand oscillation and clamp speed - the total number of openings and closures of tool tips
- Insertion - informs whether the instruments were inserted in a straight line into the operating area. Insertion is counted from the moment the instrument was inserted through the trocar until the moment in which the tip of the instrument is visible in the camera

③ Smoothness

- Acceleration - reflects sudden movements which show a strong increase in speed. Such movements are seen as dangerous during minimally invasive procedures
- Jolt - shows sudden movements which the trainee is not directly responsible for. These are the sudden movements such as instruments hitting each other, instruments hitting tissue or sudden releases of a suture under tension
- Hand Shake - monitors the shaking of the hands, differentiating this kind of movement from others and reducing a score accordingly
- Clamp Speed - is counting units of time an instrument goes from fully open to fully closed or vice versa

④ Activity

- Based on the speed of movement of the tools during training

⑤ Visibility

- The computer vision system is capable of recognizing independently whether there are instruments in the field of vision of the camera distinguishing if it left or right hand

⑥ Symmetry

- The system measures the movements of the left and right instrument independently using computer vision and sensor information. These two readings are compared along with clamp speed

Full HD Camera with LED lighting and ball-joint camera holder, adjustable angle 0° and 30°

All-in-one Computer with a touch screen

Real instruments with integrated precise sensors

Easy access to the operating area through the top and front

Stabile wheels with blockade

Electric Height Adjustment



Laparoscopic Simulation based on digital Analysis

Advantages

- Training analysis and automatic assessment
- Multi-user network functionality
- Individual user accounts
- Learning curve tracking
- Custom training creator with tutorials
- FullHD adjustable camera with blockade
- Eight insertion points for instruments
- Easy placement of the training modules
- Simple handling and easy adjustment
- Remote diagnostics and support

Mentor Desktop Server

LAPARO Analytic trainers can be configured into a network to conduct high-quality group training sessions. The mentor station allows for monitoring multiple trainees simultaneously and to correct their mistakes immediately. Streaming a mentor's view from the operating area to trainees has never been that easy! Students can follow the exercise on their own screens and improve their skills.

Mentor Desktop Server allows you to locally connect an unlimited number of Analytic simulators to share a common database. Convenient user account management gives the ability to access to each station/account in the network with dedicated credentials. In addition, the leader can remotely view the current training session and get access to the training history of each user. Live Streaming allows you to transfer the image from one station to other connected to the MDS as picture-in-picture.

