



INTELLIGENT
ULTRASOUND®

- Virtual, 3D, anatomically correct heart in normal and extensive disease states
- User can slice and section the heart in any plane to reveal anatomical structures
- Fully-integrated color, PW and CW Doppler
- Full measurement package
- M-mode
- Over 160 structures that make up the human heart are present, labeled and described in a comprehensive text book
- Uses 3D tracking technology to give extremely realistic and real-time probe manipulation feedback
- Ultra-realistic female manikin
- Full echo reporting capability
- Cart-based to mimic real system ergonomics
- Full diagnostic notes implemented into all pathologies
- Ability to create any scanning sequence for playback
- Both a deep learning and testing platform
- Can be expanded to include full PoCUS scanning with BodyWorks software integration
- System is modulated and expandable and can be built to fit any need or budget



 HEARTWORKS®

Simulation in Echocardiography (TEE & TTE)
and Lung Ultrasound

HeartWorks® is the creation of leading cardiac anesthesiologists from University College London Hospitals, providing healthcare educators with realistic simulation tools for the effective teaching of cardiac anatomy, transthoracic and transesophageal (TTE/TEE) echocardiography as well as lung ultrasound.

From the development of the most anatomically correct and realistic 3D heart to a range of fully interactive manikin based simulators, students can now learn:

- to understand cardiac anatomy through a virtual and interactive 3D heart including an integrated text book with intra-cardiac structures labeled and described.
- to practice realistic TEE and TTE probe handling skills for real-time image acquisition.
- to interpret image relationships between the 3D heart and corresponding ultrasound views.
- to recognize pathology.
- to make accurate quantitative assessments of cardiac function with Doppler and M-mode functions.



HEARTWORKS® | Dual Simulator

A Complete Education in TEE and TTE

The complete simulation solution for Transesophageal (TEE) and Transthoracic Echocardiography (TTE) in one single dual purpose manikin.

Understand cardiac anatomy

Slicing and removing sections of the beating, interactive 3D heart model reveals underlying structures that have been annotated, labelled and described. An integrated text book facilitates a comprehensive understanding of cardiac anatomy.

Realistic probe positioning

Authentic controls on the TEE probe in a life-size torso manikin and palpable, anatomical landmarks on the chest for TTE probe manipulation enable accurate, real-time views of both the 3D anatomical heart and related ultrasound planes.

Relate images to anatomy

Offering all the features of the HeartWorks imaging software, when practising and developing probe handling skills, students will see 3D heart images and corresponding real-time ultrasound views, so that image relationships can be visualised and interpreted. The integrated anatomical cardiac text book provides an additional valuable resource in echocardiography education.

Doppler & M-mode functions

Colour and spectral Doppler modalities are available along with the tools with which to make accurate quantitative assessment of cardiac function. Pulsed and continuous wave Doppler information can be obtained from any intra-cardiac region.