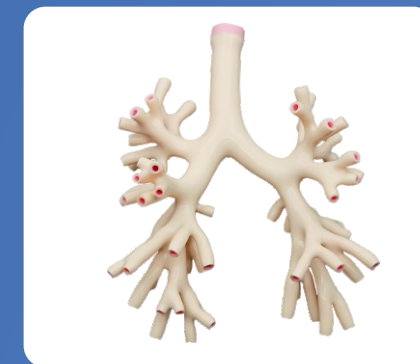


Frank

- 3D High-Simulation Medical Training Models
- 3D Endoscopic Surgery Simulator Series



—— Welcome OEM Customization ——



☎ +86 159 0213 5841(WhatsApp same number)

☎ +86 159 0083 8626(WhatsApp same number)

✉ leeyumanwang@gmail.com

🌐 <https://www.suzhoufrank.com>

📍 Room 510, Building B3, Jinyang Road,
Kunshan, Jiangsu Province

Frank Intelligent Technology



Suzhou Frank Intelligent Technology Co.Ltd



CATALOGUE

Company Profile	1-2
-----------------	-----

Product Introduction	3-20
----------------------	------

3D High-Simulation Medical Training Models	3-13
--	------

3D Endoscopic Surgery Simulator Series	14-20
--	-------



COMPANY PROFILE

Suzhou Frank Intelligent Technology Co., Ltd., headquartered in Suzhou, Jiangsu Province, is a specialised enterprise focused on medical device imaging technology. Its core business encompasses the processing of medical device imaging technology and the research, development, and production of surgical training models, aiming to provide high-quality imaging technology support and professional training solutions for the medical sector.

Leveraging its technological expertise and innovation capabilities, the company has successfully cultivated renowned brands such as FESTAKE and possesses core technological achievements including FRANK. Its product portfolio comprehensively covers key domains within medical endoscopic video systems, specifically encompassing:

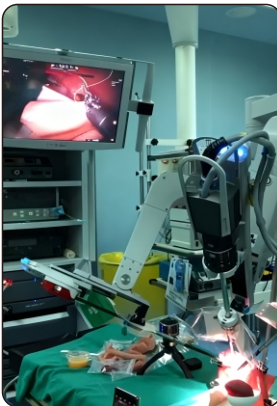
- Naked-eye 3D Series: Featuring naked-eye 3D stereomicroscopes, 3D tablets, and 3D displays. This series eliminates reliance on auxiliary equipment for traditional 3D imaging, delivering more intuitive and comfortable visual experiences for medical observation.
- High-definition and Fluorescence Imaging Systems: Encompassing 3D/4K fluorescence endoscopy systems, three-dimensional gastrointestinal endoscopy camera systems, and 4K/FHD flexible endoscopes. These deliver ultra-high resolution and precise imaging capabilities, enhancing accuracy in clinical diagnosis and surgical procedures.
- Teaching and Training System: Featuring a suite of surgical teaching and training systems that simulate authentic clinical scenarios, providing standardised, repeatable training platforms for enhancing healthcare professionals' surgical skills.

Leveraging its comprehensive range of premium products and technical services, the company continuously empowers medical institutions, research institutes, and medical education organisations, driving sustained advancement in diagnostic precision, surgical safety, and talent development within the healthcare sector.

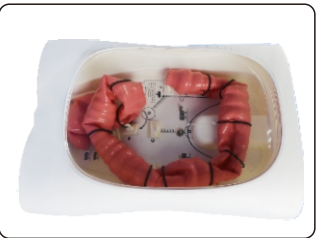


1:1 Human Body Data

....



- ✓ 3D Printing
- ✓ Realistic reproduction
- ✓ Printing: PLA, PVA, ABS plastic, PETG
Silicone:Silica gel



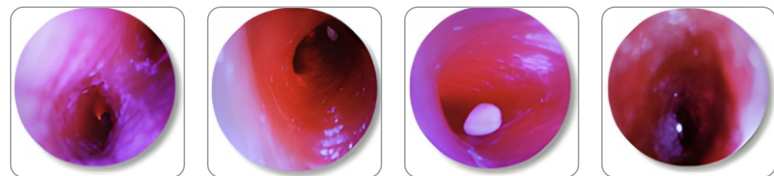
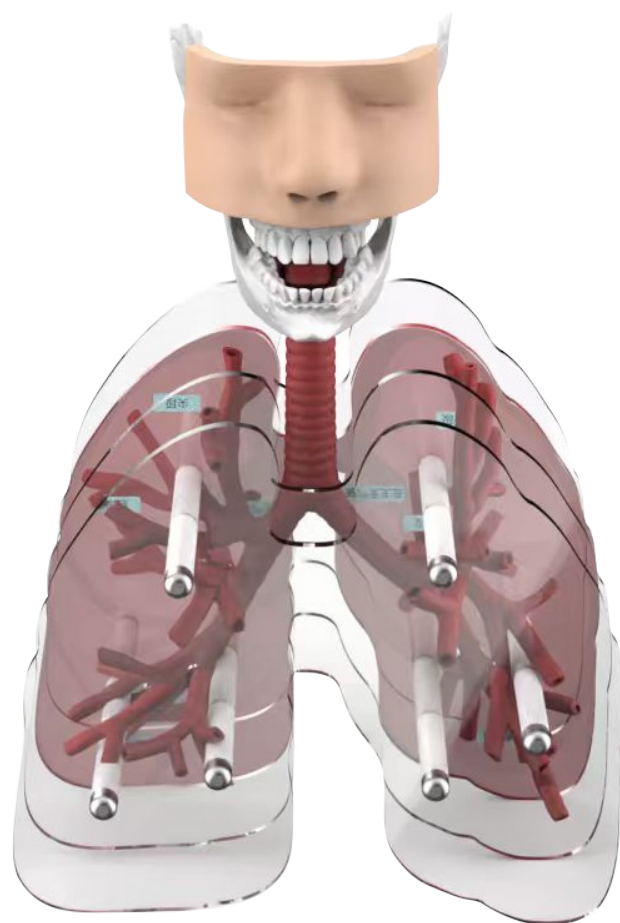
► Bronchoscope

•Product Features

Both sides of the bronchus are fully exposed, which can realize visual training and closed training, and meet the difficulty ability of different trainers.

•Principal Components

Simulation of human bronchial tree junction basedon 3D modeling of human data Reversion to grade 4 bronchial branch



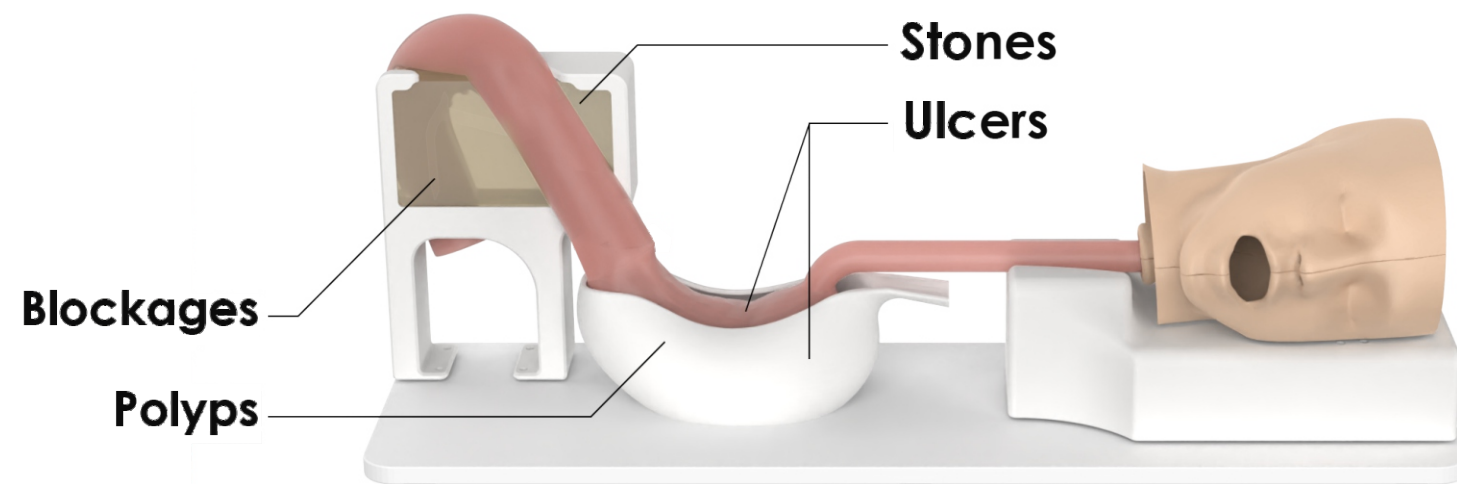
• Supported Projects

* t can cooperate with any real fiberoptic bronchoscope on the market for operation exploration training, sputum suction, foreign body picking and other operations;

*The head part A can enter the bronchus through the mouth or nose, and the head part B can enter the main bronchus directly, and the training difficulty is different. Reusable, low cost;

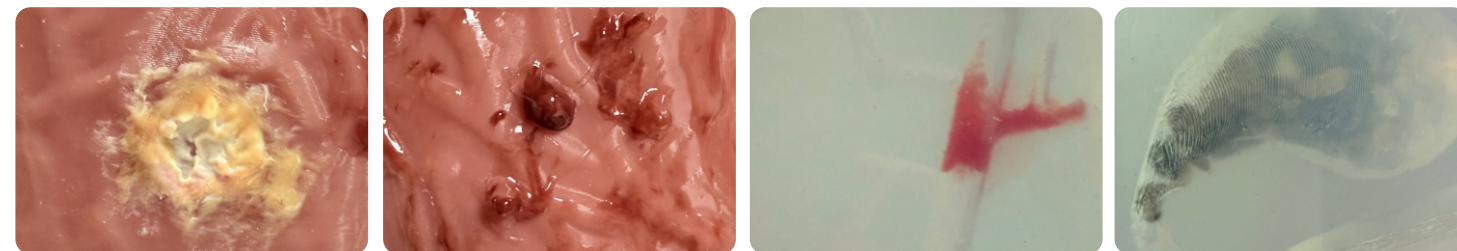
*High portability, no special storage requirements.

► Gastrointestinal Endoscopy



•Product Features

Restore the real digestive system environment based on real human data, and support the use of any real gastroscope and other digestive endoscopes on the market for operational exploration training.



•Principal Components

Simulation of human head, mouth, nasal cavity, esophagus, stomach, cardiac, pylorus, duodenum(part), gallbladder, pancreatic duct, bile duct, duodenal papilla and other digestive system structure.

• Supported Projects

* There are 4 positioning markers designed in the digestive tract, which can be used to identify the direction of endoscopic training;

*Support any brand gastroscopy exploration training on the market;

*Reusable, low cost;

*High portability, no special storage requirements.

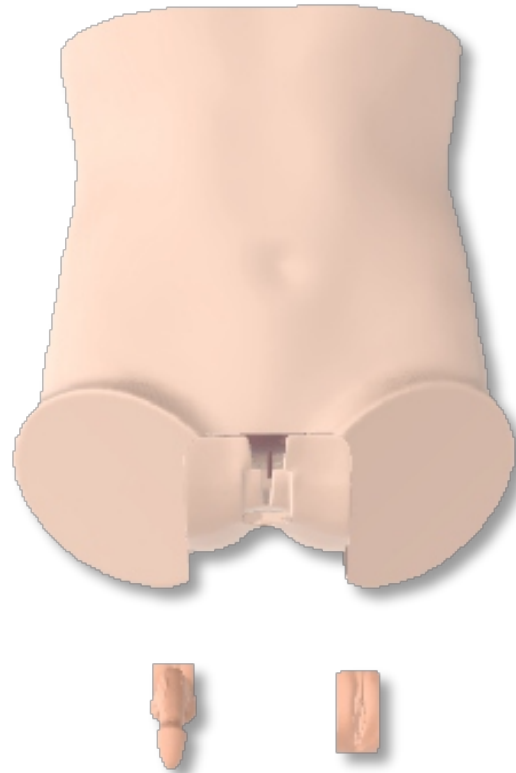
► Urological Endoscopy Training Model

•Product Features

Polymer simulation material, texture and touch to restore the real organ.

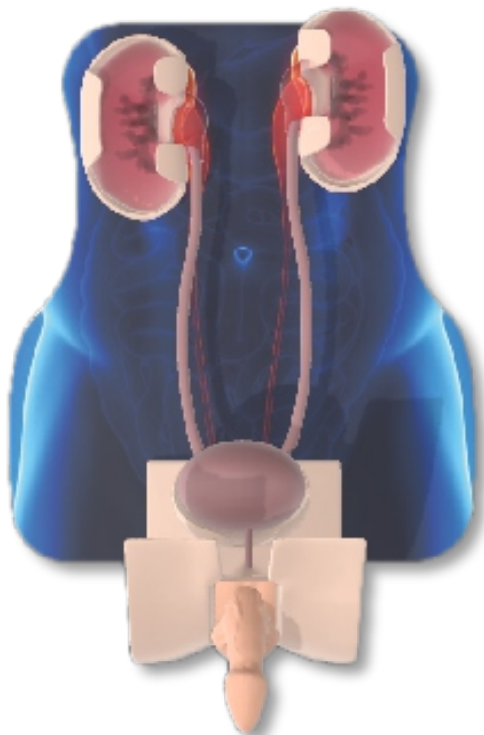
•Principal Components

Male reproductive organs (penis, testicles), urethra, prostate, bladder, ureter, kidney (calyx, renal pelvis), simulated stones, etc.



•Supported Projects

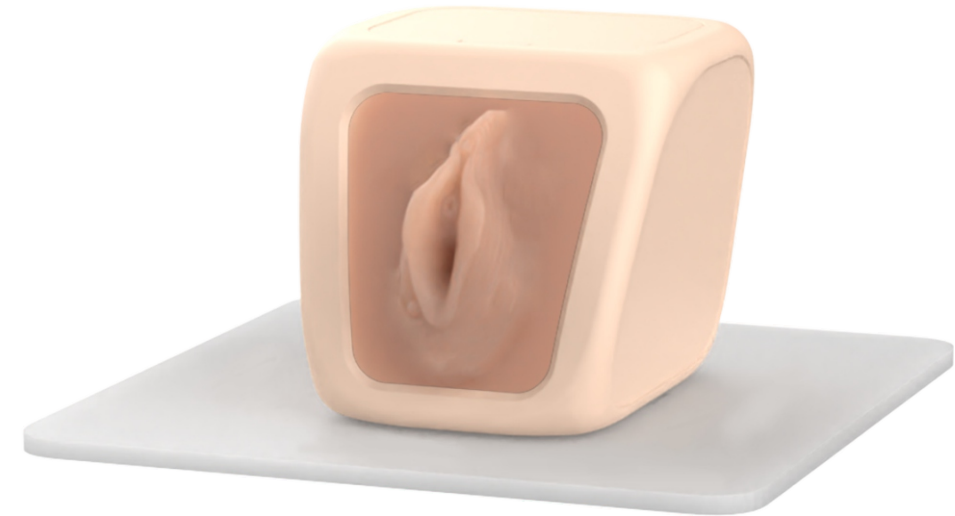
- * Training in pyelolithotomy and ureterolithotomy;
- * Training in ureteroplasty (dilatation and stenting);
- * Training in urethroplasty (dilatation and stenting);
- * Male bladder irrigation training;
- * Male catheterization training;
- * Training in locating and removing stones under nephroscopy;
- * Optional placement of simulated stones in the renal pelvis for practice in flexible ureteroscopy with holmium laser lithotripsy.



► Hysteroscopic Training Model

•Product Features

Performance testing and functional demonstration training for interventional instruments used with colposcopes and biopsy devices

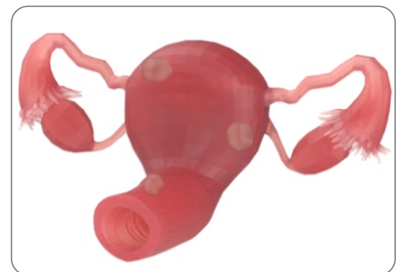


•Principal Components

Vagina, cervix, uterine cavity, fundus of the uterus, ureteral orifice

•Supported Projects

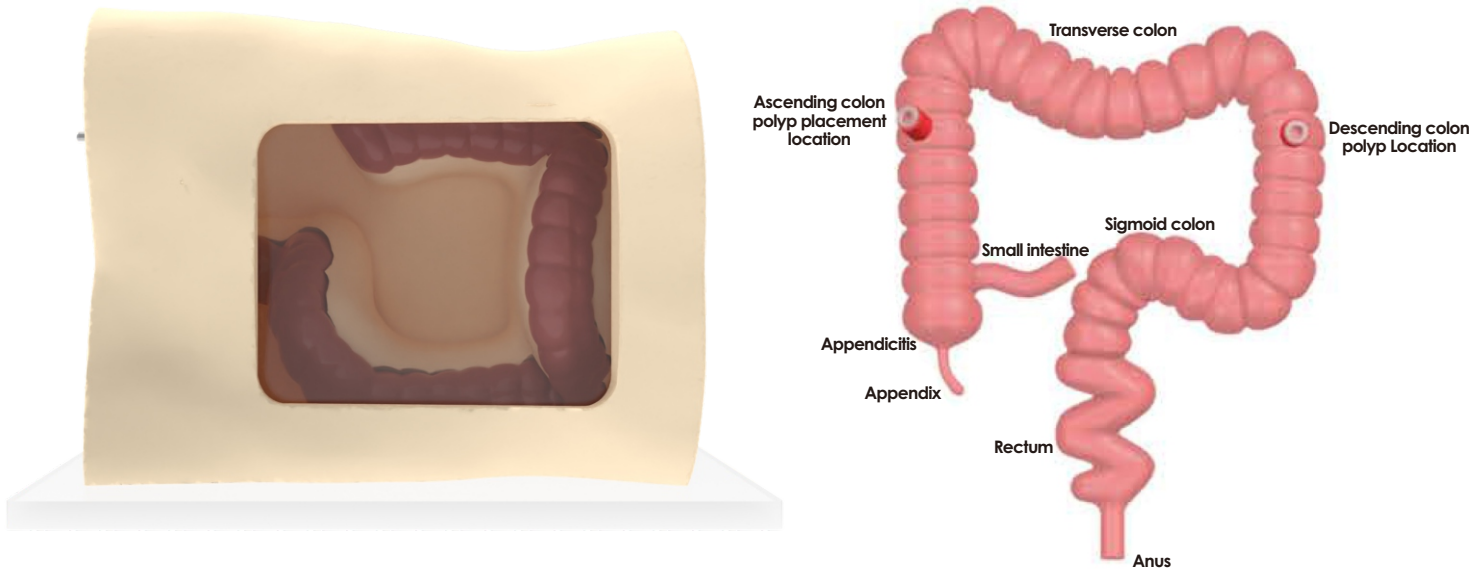
- * Simulates hysteroscopy for training in hysteroscope insertion procedures;
- * Simulates training for myomectomy;
- * Simulates intrauterine device insertion and removal.



►Colonoscopy training model

•Product Features

Based on real human data to restore the intestinalsystem environment, soft texture, strong sense ofreality, with 6 lesions: polyps, tumors. The material of the intestinal body is close to thereal human body, and the progress of the endoscope can be observed through the lightsource during use.When the product is used, it should be filled with lubricating liquid or glycerin, and it can be washed with water. No consumables can be used repeatedly.



•Principal Components

Appendix, cecum, ascending colon, transverse colon, descending colon, sigmoid colon, rectum, anus, anal sphincter, etc.

•Supported Projects

- *Endoscopic examination of the anus, rectum, sigmoid colon, descending colon, transverse colon, ascending colon, cecum, and appendix;
- *LST (lateral-growing tumor) reproduced in the ascending colon;
- *Observation and polyp resection training can be performed by attaching four simulated polyps (Classification!~Type I) to the ascending and descending colons.

►Gastrostomy

•Product Features

Skill training for high-difficulty procedures such as endoscopic submucosal dissection (ESD) and endoscopic submucosal tract creation (STER). Utilizes modified ex vivo porcine gastric blocks as primary training material, employing 3D printing technology to replicate the 1:1 anatomical structure of the human upper gastrointestinal tract. Simulates a realistic endoscopic operating environment.

•Principal Components

Oral cavity, pharynx, esophagus, main body of the stomach, base, electrode connecting wires, etc.

•Supported Projects

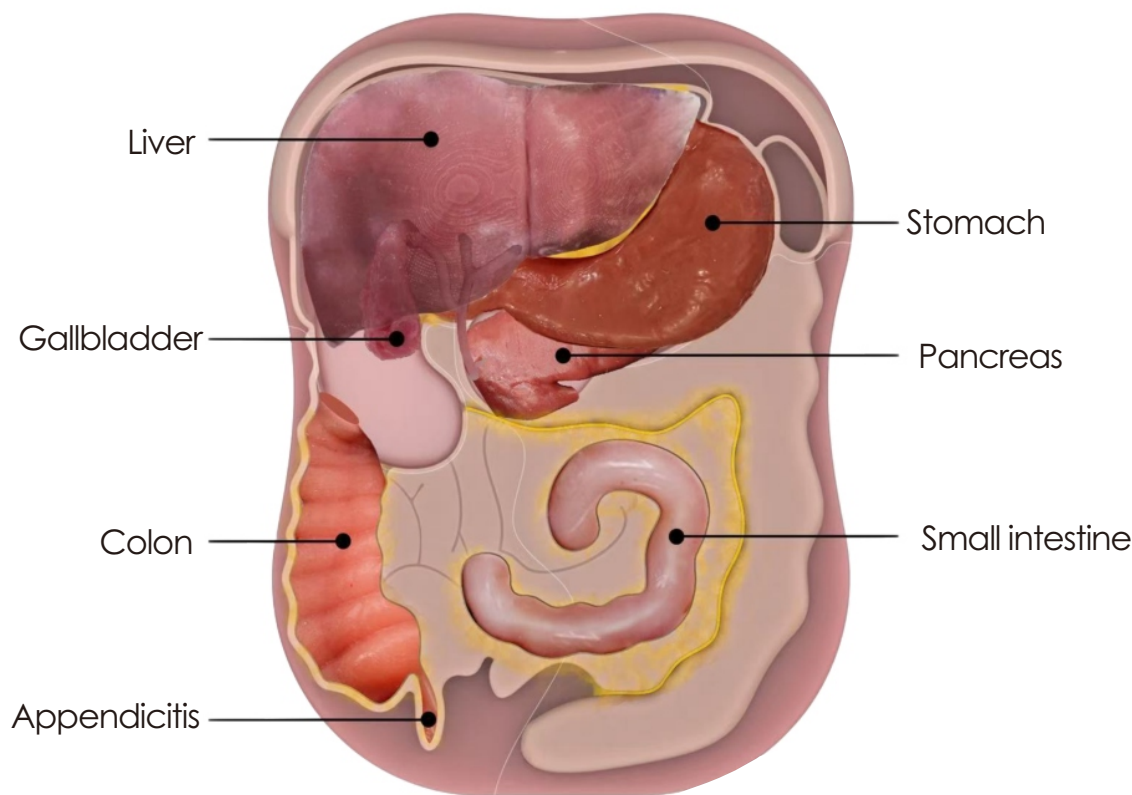
- *Endoscopic Submucosal Dissection (ESD)
- *Endoscopic Submucosal Tunneling (STER)
- *Peroral Endoscopic Myotomy (POEM)



►Laparoscopic Comprehensive Training Model

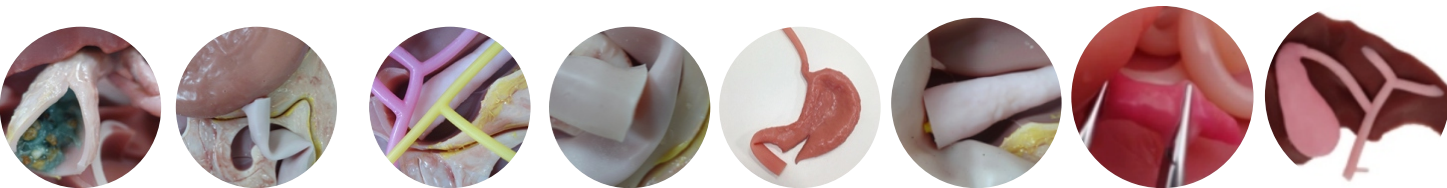
•Product Features

Based on real clinical data, 3D printing technology can be used to replicate multiple organs and the abdominal environment, enabling the following procedures:Gastrointestinal anastomosis;Partial gastrectomy;Intestinal anastomosis (end-to-end, end-to-side, side-to-side);Choledochojejunostomy;T-tube placement for biliary drainage;Gallbladder stone removal;Appendectomy;Pancreaticojejunostomy;



•Principal Components

Organ Consumables Module: Stomach Body*1, Intestine*2, Liver*1, Gallbladder*1, Appendix*1, Pancreas*1T Tube



►Dural Repair Training Model

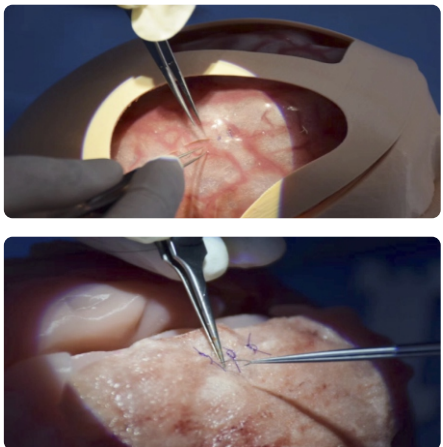
•Product Features

3D reconstruction of head, dural membraneand brain parenchyma structure based onhuman real data,
It is helpful to master and practice thenecessary extramural techniques



•Supported Projects

*The product can simulate dural cutting,suspension, autosuture and mold during neurosurgical training:Artificial patch;Interrupted suture;Conventional continuous suture;Continuous stitching with overlock;Socket handling method;Test for suture tightnessEtc.



►Training Model for Transnasal Sphenoid Process Resection

•Product Features

* This model is based on real human anatomy data;
*It particularly enhances proficiency in neurosurgical procedures such as the sphenoid ridge resection approach and basic training for transsphenoidal approaches.

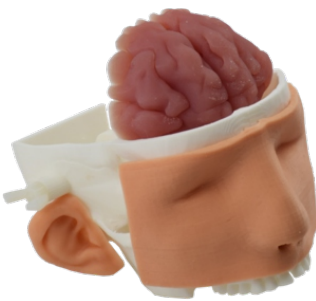


• Principal Components

3D reconstruction of the head, brain parenchyma and skull based on real human data Basal hematoma lesion

•Supported Projects

*The model contributes to enhancing the level of emergency treatment in neurosurgery.;
*Be able to operate with clinical real surgical instruments



► Microsurgical Intracranial Vascular Anastomosis Training Model



• Principal Components

3D reconstruction of brain parenchyma and blood vessels based on real human data, capturing texture and morphology

• Product Features

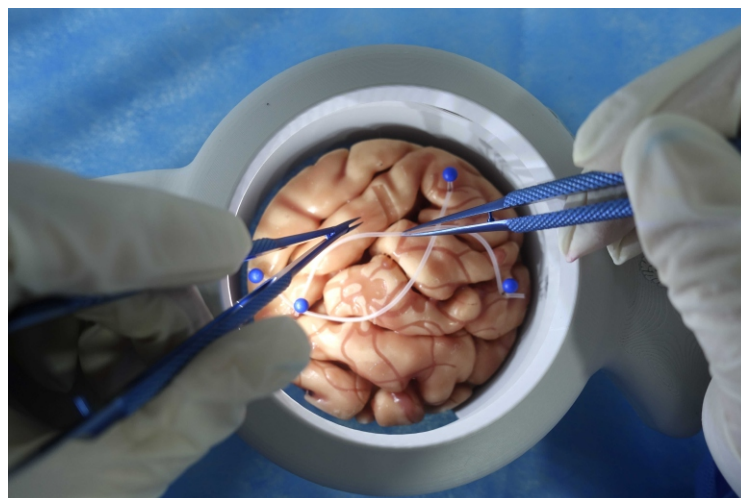
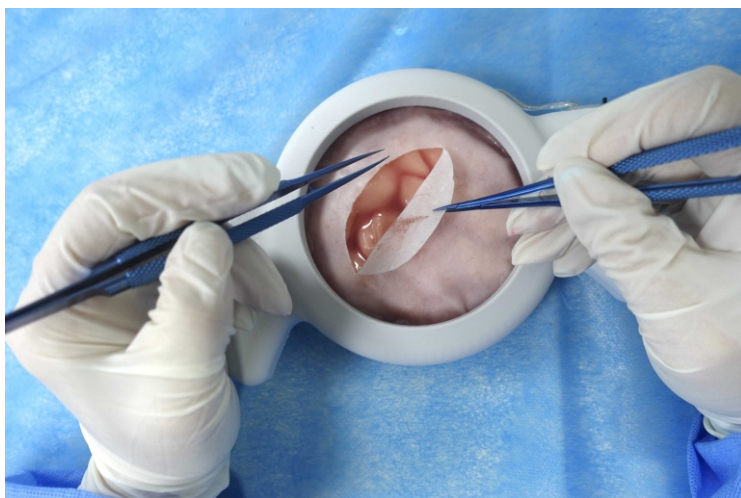
*Based on real clinical data, multi-material 3D printing combines soft and hard materials to replicate the texture and morphology of local brain parenchyma and blood vessels;

* Window cover incorporates a support plate to reduce wrist fatigue during prolonged instrument handling;

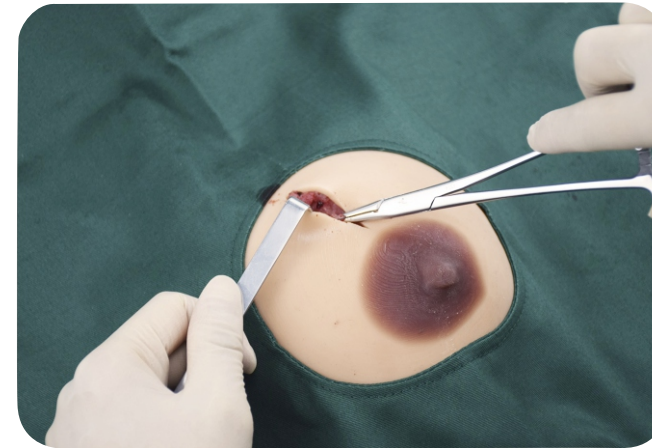
* Compatible with base for deep anastomosis training;

* Supports dura mater anastomosis, end-to-end, end-to-side, and side-to-side vascular anastomoses, catering to neurosurgical instrument manipulation and skill enhancement;

* Reusable model with replaceable vascular consumables.



► Breast Tumor Excision Training Model

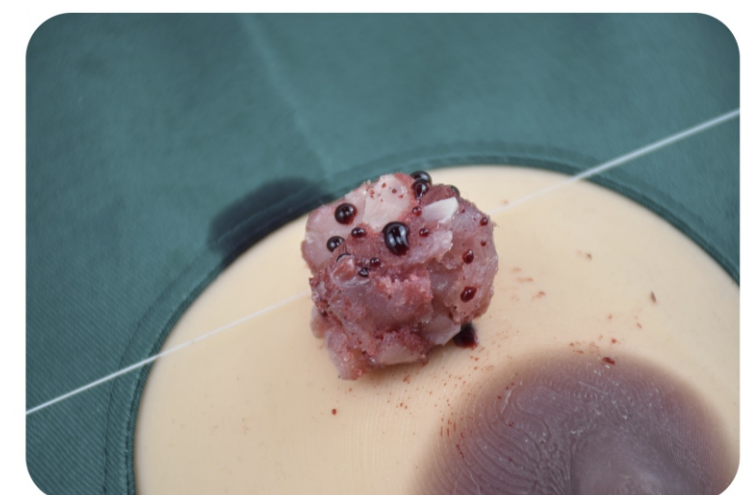
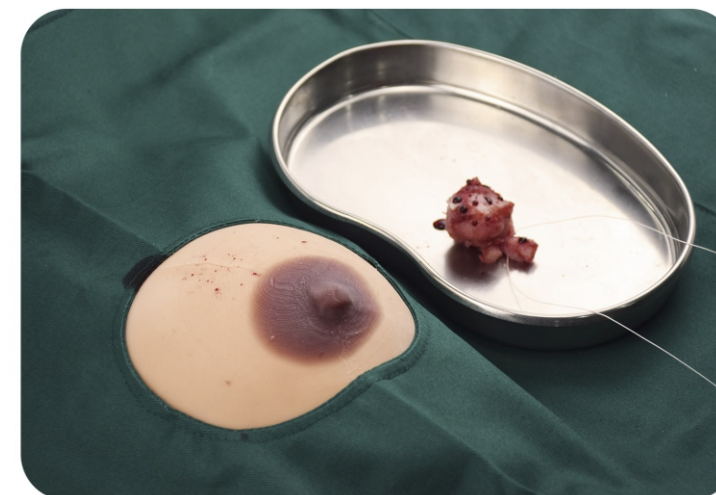


• Principal Components

Simulates breast tissue and four tumor and hyperplasia sites in different regions, suitable for training in breast palpation, tumor excision, cosmetic suturing, and breast reconstruction.

• Product Features

The polymer simulation material simulates the shape of the human breast on one side and truly restores the human breast surface Skin, dermis, glandular duct, subcutaneous adipose tissue etc. Simulate breast tissue and 3 tumors and hyperplasia in different parts, suitable for palpation of the breast. Tumor resection, cosmetic suture, breast reconstruction training; Allow the operator to experience the real feel of palpation and the hardness, motion and consistency of the lump. The adhesion of surrounding tissue.



► **Medical Cesarean Section Training Model**



• **Principal Components**

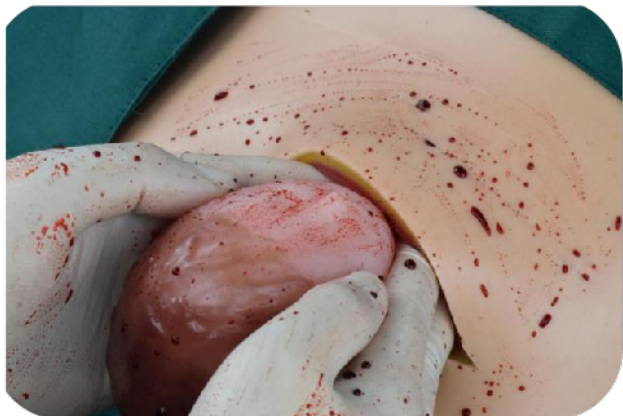
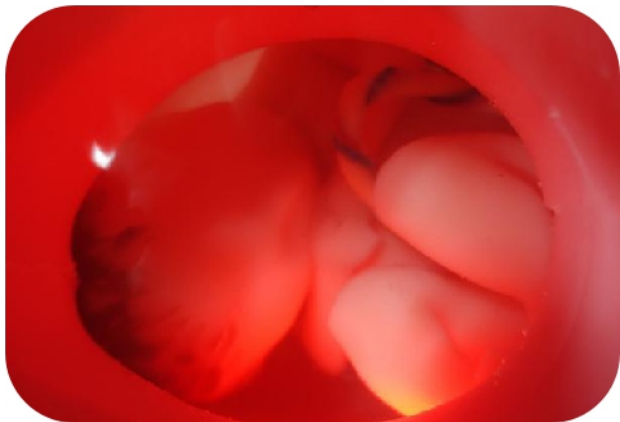
The product realistically replicates fetuses at different gestational ages, along with the umbilical cord and uterus. Customizable features include umbilical cord entanglement around the neck, trunk, or limbs, simulating various conditions of fetuses in labor.



• **Product Features**

Made from polymer materials, utilizing 3D data modeled from real human anatomy for accurate anatomical structure.

The product meets the training requirements for cesarean section procedures, helping users master and practice essential techniques. It can be used independently or inserted into a manikin cavity to create a more realistic operating environment.



3D Endoscopic Surgery Simulator Series

► **Belly simulator with skin** (Optional Monitor)



Drawer



Flip



Apparatus



- *Needle holder forceps Φ5x330mm
- *Marryland dissector Φ5x330mm
- *Cuvred scissors Φ5x330mm
- *Grasping forceps Φ5 x330mm
- *Cannula Φ5mm Cannula Φ10mm
- *Trocar Φ5mm

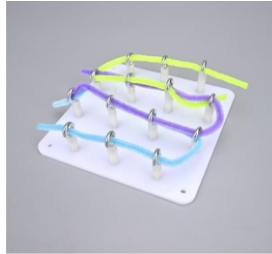
Camera

0°or 30° Endoscope Camera



- *1080P,1920x1080
- *No distortion, 2 millions pixel
- *WIN, MAC, ANDROID compatible
- *10mm OD, 300mm length
- *Adjustable focus, With 8 LED Lights
- *Supports USB-C/A connections(Additional accessories are required to connect iPad and iPhone)

Modules



► **Abdominal Simulator** (Optional Monitor)



Apparatus



- *Needle holder forceps $\Phi 5 \times 330 \text{mm}$
- *Marryland dissector $\Phi 5 \times 330 \text{mm}$
- *Curved scissors $\Phi 5 \times 330 \text{mm}$
- *Grasping forceps $\Phi 5 \times 330 \text{mm}$
- *Cannula $\Phi 5 \text{mm}$ Cannula $\Phi 10 \text{mm}$
- *Trocar $\Phi 5 \text{mm}$

Camera

0° or 30° Endoscope Camera



- *1080P, 1920x1080
- *No distortion, 2 millions pixel
- *WIN, MAC, ANDROID compatible
- *10mm OD, 300mm length
- *Adjustable focus, With 8 LED Lights
- *Supports USB-C/A connections (Additional accessories are required to connect iPad and iPhone)

Modules



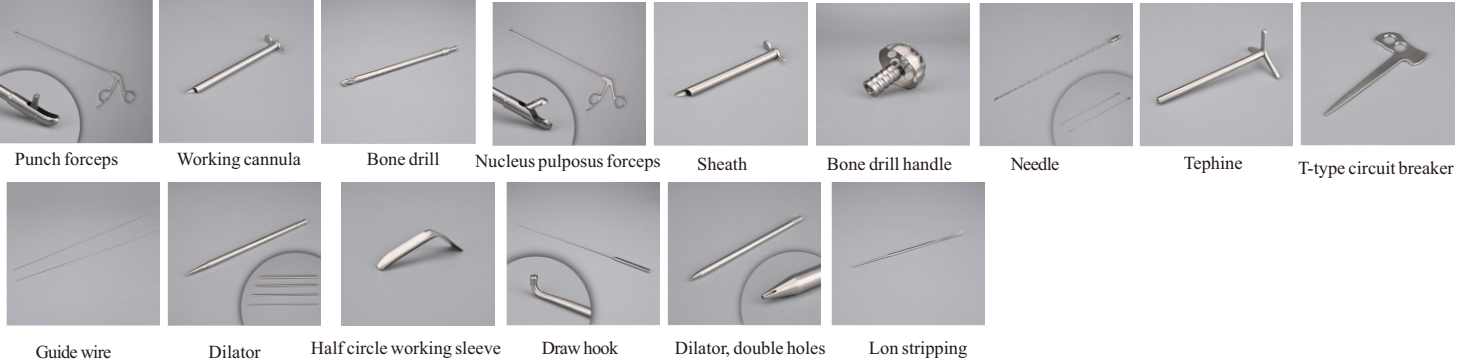
► **Intervertebral foramen endoscope simulation training kit**



30° intervertebral foramen endoscope



- *1280x720
- *WIN, MAC, ANDROID compatible
- *10mm OD, 185mm length
- *Adjustable focus, With 8 LED Lights
- *Supports USB-C/A connections
- (Additional accessories are required to connect iPad and iPhone)



► **Model knee package (model + camera + monitor)**

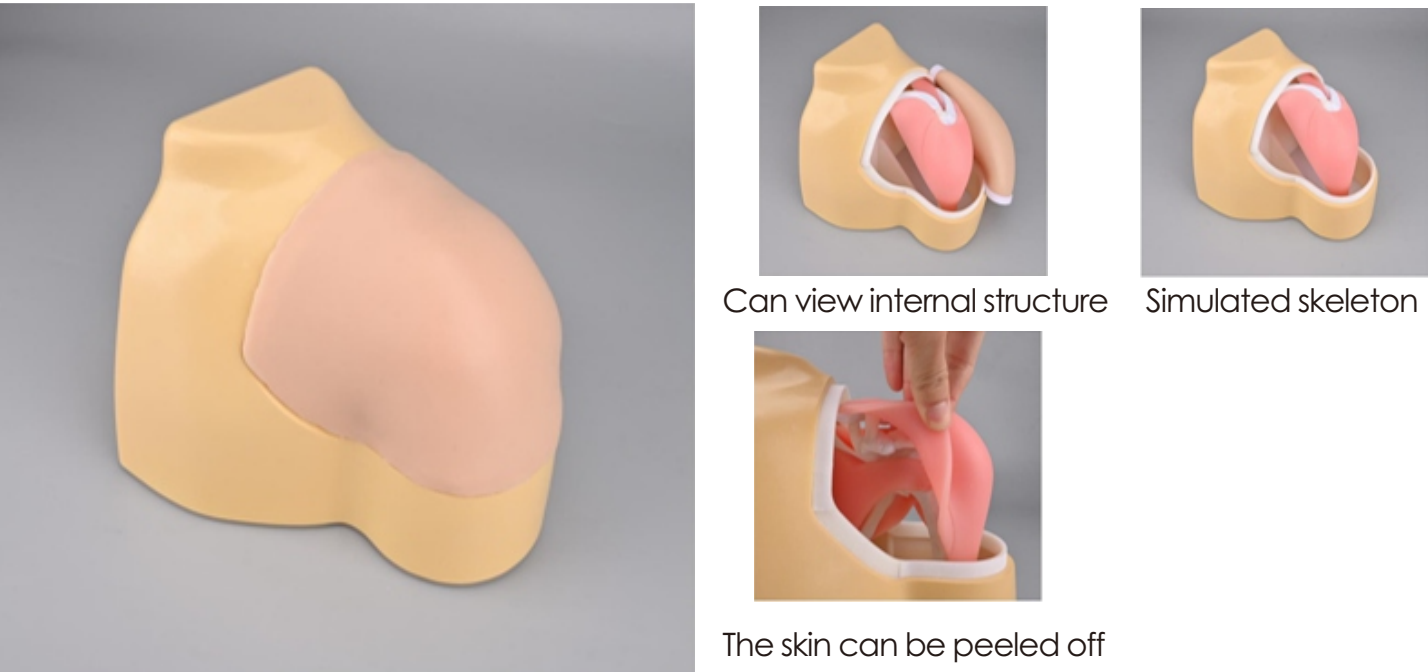


11-inch monitor

Camera

- A model of the knee joint
- Flexible and fixed
- Metal Plate base

► **Shoulder joint structure**



Can view internal structure

Simulated skeleton

The skin can be peeled off

► **Arthroscopy Training Kit**



Camera 0°or 30° Endoscope Camera



- *1280 x720
 - *No distortion
 - *WIN,MAC, ANDROID 8.0 compatible
 - *5mm OD,175mm length
 - *Adjustable focus, With 8 LED Lights
 - *Supports USB-C/A connections
- (Additional accessories are required to connect iPad and iPhone)



Bird beak pliers



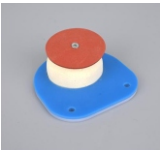
Needle nosed wire pliers



Straight shear



Bending shear



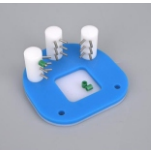
Shoulder glenoid suture



Meniscus trim



Probe practice



Vertical handling



Plane handling



Probe practice for maze

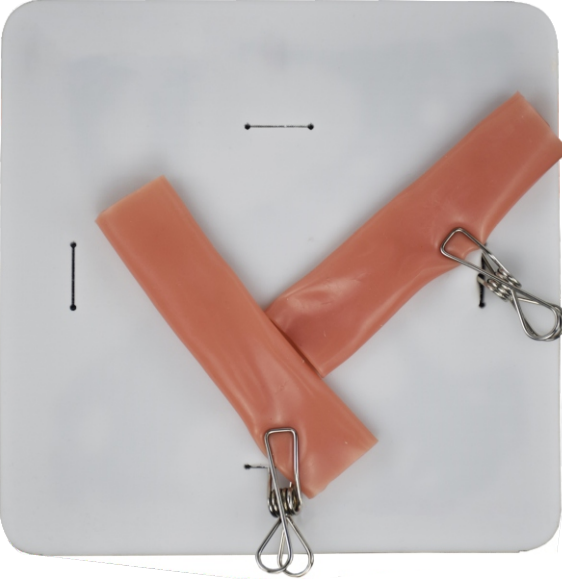


Meniscus suture



Knot tying exercise

► **Entero-enteric Anastomosis Model**



•Product Features

Polymer simulation material realistically replicates the texture and tactile sensation of human intestines, enabling practice of intestinal anastomosis procedures. It supports various suturing techniques including end-to-side, end-to-end, and side-to-side suturing. The product can be used independently, mounted on the CLIN3D abdominal jejunum model, or placed within a simulated human cavity to enhance training realism.

•Supported Projects

Suitable for surgical robotics and laparoscopic intestinal surgery training

► **Laparoscopic Suturing Training Module**



•Irregular wound(T1)
Skillfully manipulate the needle and tie knots, maintaining even spacing.

•360° suturing(T2)
Trained to perform simple interrupted sutures, continuous sutures, continuous lockstitch sutures, figure-eight sutures, and continuous suturing techniques

•Vertical deep suturing(T3)
Simulate tissues at varying depths, particularly in confined or deep surgical fields such as the pelvic cavity, thoracic cavity, and retroperitoneum

•Deep suturing(T4)
Practice needle manipulation and knotting at different angles using marked points to train simple interrupted sutures, continuous sutures, continuous locking sutures, figure-eight sutures, and through-and-through sutures.

► **Other training models**

01 Episiotomy Training Model



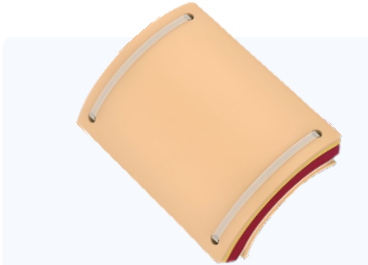
Training Program Episiotomy	Technology 3D Printing	Department Obstetrics and Gynecology
Product Features Made from polymer materials, utilizing realhuman body data modeling, simulating theperineal area and anal morphology, includingskin,subcutaneoustissue, and muscle layers:suitable for simulating episiotomy proceduresduring vaginal delivery, as well as suturingrepair training for perineal tear injuries; aftersuturing, it allows for rectal examination.		

02 Skin Suture Simulator



Training Program Subcutaneous skin suturing	Technology 3D Printing	Department General Surgery
Product Features Made from polymer-based simulation materials,utilizingrealhuman body data modeling, simulating theperineal area and anal morphology, includingskin,subcutaneoustissue, and muscle layers:suitable for simulating episiotomy proceduresduring vaginal delivery, as well as suturingrepair training for perineal tear injuries; aftersuturing, it allows for rectal examination.		

03 Abdominal Wall Suturing Trainer



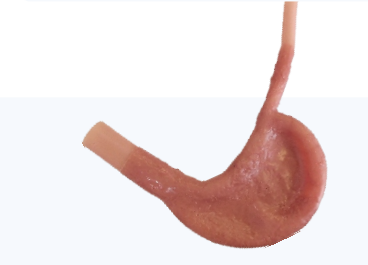
Training Program Abdominal wall suturing	Technology 3D Printing	Department General Surgery
Product Features Based on real clinical data, 3D printing technology is used to combine different soft and hard materials to simulate the structure of the human abdominal wall, including skin, subcutaneous tissue, fat, muscle, and fascia. The texture is close to the elasticity of human tissue connective tissue and fibers.and layering suture training can be conducted. The product device gives the module tension andmakes the stitching more realistic. The selection and operation of sutures for different parts of thebody used in clinical practice, understanding to reduce the risk of tissue dehiscence at the wound site.		

04 Wound Debridement & Suturing Trainer



Training Program Fracture Debridement and Suturing	Technology 3D Printing	Department General Surgery
Product Features Polymer simulation material, texture and touchsimulation of human uterine cavity withmyoma,Cervical and vaginal structure;The intrauterine with 4 myoma pathologies issuitable for any hysteroscopic demonstrationand operational training on the market.		

05 Gastrointestinal Anastomosis Trainer



Training Program Gastrointestinal Anastomosis	Technology 3D Printing	Department Digestion
Product Features Made from polymer-based flexible material,simulating the texture and sensation of thegastric sleeve and jejunum, allowing forthraining in gastric body to jejunumanastomosis procedures.		

06 Superficial Tumor excision trainer



Training Program Excision of Cutaneous Tumors	Technology 3D Printing	Department Tumor
Product Features The training model for surface tumors simulates the characteristics of benign subcutaneous surface tumorsThe dermis is incised through a findle-shaped or longitudinal incision. One side of the skin margin is liftedwith tissue forceps, and a blunt or sharp separation is made along the outside of the tumor or cyst capsulewith scissors. The complete capsule is completely removed, and the contents and blood are wiped off withgauze during the process. After the cyst is completely removed, the incision is sutured.		