



Ophthalmic Surgical Training Models



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PRODUCT CATALOG

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**The SimuleYES® were a huge help. We plan to put together LensGen training kits with SimuleYE® models so our clinical members can train surgeons for our FDA study and beyond.**

— PATRICK CASEY, OD LENS GEN, INC., DIRECTOR OF CLINICAL AND REGULATORY AFFAIRS



**The products we have used from Dr. Stoll for our resident-education programs are excellent!**

— MICHAEL VAUGHN, SALES REPRESENTATIVE,  
MICROSURGICAL TECHNOLOGY

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## Anterior Segment Models

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### SimuloRhexis®

This is the first model developed which is specifically for capsulorhexis training. A total of 10 capsulotomies can be performed with each SimuloRhexis Kit. Corneal incisions need to be made, the anterior chamber must be filled with viscoelastic and a CCC can then be created. The pressure behind the capsule can be increased for greater difficulty. The anterior capsule will bow forward causing the anterior chamber to shallow while making the tear want to run down the slope and outward. Rescue maneuvers can be practiced and perfected.



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### SimuleYE® Small Pupil

Developed for use with iris expansion devices such as the Malyugin Ring to learn the teaching points of insertion and removal of these devices. This model may also be used for placing iris hooks or for practicing IOL cutting and removal in the anterior chamber. With proper care and surgical technique, this model is designed to be re-used multiple times.



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### SimuleYE® Aphakia

This model provides an empty capsular bag with a pre-made 5.5 mm capsulotomy. It is ideal for implanting IOL's and working with CTR's and capsule hooks. With proper care and surgical technique, this model is designed to be re-used multiple times. A modified version with a smaller pupil is available for the Diamatrix Xpand Iris Speculum devices so that the capsule and iris can be supported at the same time.

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## Anterior Segment Models

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### SimuleYE® miLOOP

The SimuleYE® miLOOP model was developed in conjunction with Zeiss to train surgeons looking to utilize the miLOOP device. The eye provides a realistic capsule with a pre-made capsulorhexis which allows deployment of the miLOOP wire within the capsular bag. Consumable lenses (sold separately) are placed into the capsular bag to be fragmented with the miLOOP. All of the key teaching points can be demonstrated and practiced on this model with the highest levels of realism and performance.



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### SimuleYE® ACIOL

This model was developed for Kenneth Hoffer, MD to help teach ACIOL implantation as part of Dr. Kevin Miller's resident training labs. It is ideally sized for the Alcon MTA3UO ACIOL lens which has a diameter of 12.5mm. Learn how to insert the ACIOL with the proper incision size, rotate it into position and remove it. As Dr. Hoffer always emphasizes, be sure to use a mirror gonio lens to view the ACIOL and ensure that the haptics are well positioned in the angle. The eye can be used multiple times with proper surgical technique.



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### SimuleYE® Capsule Support

This model provides an eye with a capsular bag and half an iris! Yes, that's right, only half of the iris. It is ideally suited for working with CTRs, Capsule Hooks, Ahmed Segments and other devices that are used to support an unstable capsule. The half iris allows visualization of the capsule to better understand the proper insertion angle for CTRs and to be able to visualize the capsule when using these devices. When working with Ahmed segments, it can be helpful to work initially on the aniridic side and then rotate the eye 180 degrees to work on the other side with the iris and a sulcus. You can also place iris hooks on the half iris which has excellent tissue realism. This model does not allow use of other pupil expanding devices that would require the full iris. Multiple procedures can be performed on each model before the eye is consumed.

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## Anterior Segment Models

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### **SimuleYE® Iris Suturing & IOL Fixation (ISIF) — for Yamane Technique**

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This model provides an eye with a flexible iris that can be easily cut and then repaired with various suturing techniques. The root of the iris can be disinserted to practice iridodialysis repair. Various IOL fixation techniques can be practiced including iris suture fixation, scleral suture fixation and intrascleral fixation including the Yamane technique. In addition, IOL cutting and exchanges can be practiced. Multiple procedures can be performed on each model before the eye is consumed.



### **SimuleYE® LRI**

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The Limbal Relaxing Incision (LRI) model provides an eye which is suitable for practicing manually constructed relaxing incisions for the treatment of astigmatism. The eye can be filled with water or viscoelastic to demonstrate if a corneal perforation has occurred. Multiple arcuate incisions can be placed on each eye before it is consumed. This model may also be used for practicing corneal suturing.



### **SimuleYE® A-Vit**

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This model allows the user to practice bimanual anterior vitrectomy through a pars plana approach. The eye is filled with a realistic synthetic vitreous which allows visualization of the gel. The surgeon can learn when to use the cutter and when to use the aspiration setting and can see the effects visually in the gel. This model is designed for single use.

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## Anterior Segment Models

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### SimuleYE® Red Reflex & Anterior Segment OCT

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This model was designed in conjunction with Zeiss for the ARTEVO 3D viewing system to showcase their brilliant red reflex as well as anterior segment OCT technology. Changing the light source between Stereo Coaxial Illumination (SCI) and oblique helps the user to understand how to bring out the red reflex or use surface lighting when needed. Use of the OCT allows for visualization of the anterior and posterior cornea along with the iris, angle and anterior lens. Use of a mirror or gonioscope will allow visualization of the angle. This model is already filled with gel and does not require any set-up. With proper care and use it is designed to be reused multiple times. We do not recommend making surgical incisions into this eye.



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### SimuleYE® Red Reflex Advanced

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This model was designed in conjunction with Alcon for the LuxOR Revalia Ophthalmic Microscope and the NGENUITY 3D Visualization System.

A glass optic cornea coupled with a colored retina insert are used to provide the most realistic red reflex. Changing the light source between Stereo Coaxial Illumination (SCI) and oblique helps the user to understand how to bring out the red reflex or use surface lighting when needed. Manipulation of the various light sources and intensities facilitates an understanding of how to operate the microscope settings to optimize the surgical view. This model is sealed and does not require any set-up. With proper care and use it is designed to be reused multiple times. We do not recommend making surgical incisions into this eye. This model is not suitable for OCT imaging. For anterior segment OCT capability please see our Red Reflex & Anterior Segment OCT model.



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### SimuleYE® Iris Prosthesis

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The Iris Prosthesis model provides an eye that is aniridic with an empty capsular bag which is ready to accept various iris prostheses. It was developed specifically with the Human Optics Artificial Iris in mind but can be used in conjunction with other similar devices to recreate the iris anatomy.

The Iris Prosthesis Combo Pack is a 2-eye pack which includes the Iris Prosthesis model (available separately) along with a second eye which has no iris and no capsular bag. The second eye recreates the scenario in which there is no capsular support and the Human Optics Artificial Iris must be sutured to the sclera.

# Anterior Segment Models

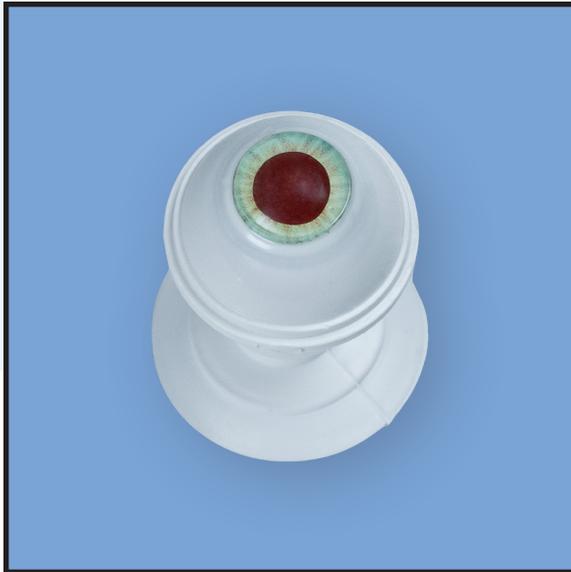


## SimuleYE® Zepto

The Zepto model was developed in conjunction with Centricity Vision to help train surgeons looking to utilize this technology. The eye provides an anatomically correct platform including a pre-made incision through which the Zepto device can be placed onto a consumable and replaceable anterior capsule. All of the teaching points can be demonstrated to train surgeons on how to utilize the Zepto device with the highest level of realism and performance.

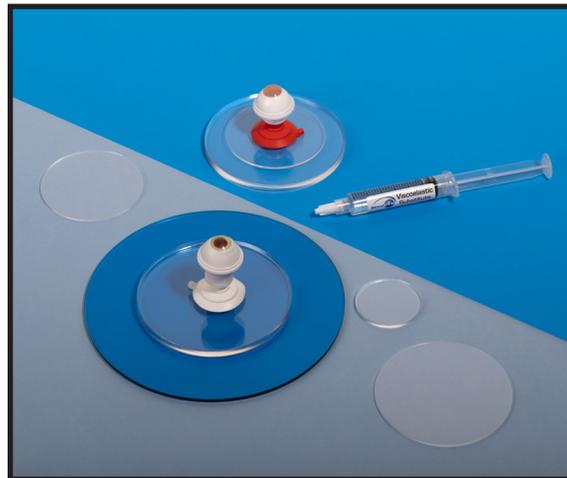


# Ultrasound Model



## SimuleYE® Ultrasound

This model was developed at the request of Kevin Miller, MD for the resident training labs. The goal was to have a single model that could be used to teach residents and technicians how to use immersion A-Scan as well as B-Scan biometry. When using immersion A-Scan, the eye gives accurate and reproducible measurements. Data points can also be manipulated manually to learn how to use the device. When using B-Scan, users can view a staphyloma as well as locate a tumor with a realistic ultrasound signal. Measurements can be taken along with different cross-sections to learn how to hold and manipulate the probe. The eye comes fully assembled and ready to use. Designed to be used with an immersion shell for A-Scans. Please handle with care and avoid significant pressure.



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## Laser Models

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### SimuleYE® YAG

This model provides a cornea-scleral shell for use with or without a YAG capsulotomy laser lens. Inside is an iris, anterior capsule membrane, an IOL and a posterior capsule which will respond to Nd:YAG laser treatment. The eye needs to be filled with water prior to use. This model is considered single use. However, multiple laser spots can be applied to each eye before it is consumed.



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### SimuleYE® SLT

This model provides a cornea-scleral shell for use with an SLT laser lens. Inside is an iris and a pigmented angle structure which will depigment upon application of an SLT laser treatment. “Champagne bubbles” form with each pulse and increase as the energy is increased. The model needs to be filled with water prior to use and requires the use of an SLT laser lens with Goniosol or other gels as a coupling agent for visualization. This model is considered single use. However, multiple laser spots can be applied to each eye before it is consumed.



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### SimuleYE® LPI

This model provides a cornea-scleral shell for use with or without an iridotomy lens. Inside is an iris with 4 treatment areas. Multiple laser spots need to be delivered in focus in order to break through the iris and create the PI. A red reflex is visible with retro-illumination upon completion of a successful PI. Realistic laser power settings are utilized. The model needs to be filled with water prior to use. An iridotomy laser lens may be used with Goniosol or other gels as a coupling agent for visualization. This model is considered single use. However, multiple laser spots can be applied to each eye before it is consumed.

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## Femto Cataract Models

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### SimuleYE® Femto (FLACS)

Designed for use specifically with the femtosecond lasers for cataract surgery (FLACS). The end user can dock to the eye, scan the internal anatomy, auto register the anatomic landmarks, adjust surgical inputs as needed and then perform a realistic treatment with the laser. These eyes can be docked and scanned multiple times but are to be discarded once treated. The eyes are customized to work optimally with each specific cataract laser platform – LenSx, CATALYS or VICTUS.



### SimuleYE® Femto (FLACS) Base Units

The reusable Femto (FLACS) Base Unit provides a platform that holds the consumable FLACS eyes. These are included as part of the FLACS Starter Kits and can now be purchased separately. All other necessary components are included in the FLACS Starter Kit.

## MIGS Models



### SimuleYE® Multi-MIGS

Looking for a SimuleYE model that can be used with multiple MIGS devices? We thought so! That's why we have developed the SimuleYE Multi-MIGS model. Use this model to train with GATT as well as with various MIGS devices such as OMNI from Sight Sciences, iTrack catheter from Nova Eye Medical, Hydrus from Alcon, iPrime from Glaukos, STREAMLINE from New World Medical and even some other devices that have not yet been released.

Our MIGS models require the SimuleYE MIGS Kit 2.0 which provides a platform to support the eyes and simulates the turned head position which is needed for visualization of the angle during MIGS surgical procedures.

The Multi-MIGS model may not be compatible with MIGS devices that are not listed. Please look for other listings or reach out for support.



### SimuleYE® KDB/TrabEx

This model is specifically designed to allow practice with the Kahook Dual Blade (KDB) MIGS instrument from New World Medical as well as MicroSurgical Technologies (MST) MIGS devices including TrabEx and Trabectome. The eye provides a realistic trabecular meshwork which can be visualized with a gonio prism plus viscoelastic and then removed with the KDB or TrabEx device. Multiple clock hours of the meshwork can be treated before the model is consumed.

Our MIGS models require the SimuleYE MIGS Kit 2.0 which provides a platform to support the eyes and simulates the turned head position which is needed for visualization of the angle during MIGS surgical procedures.



### SimuleYE® MINIject

This model is specifically designed to allow practice with the MINIject MIGS device from iStar. The eye provides a realistic angle with identifiable structures which can be visualized with a gonio prism and the use of viscoelastic. The MINIject device can then be implanted in the suprachoroidal space at which point a small cyclodialysis cleft may be seen. Multiple devices can be implanted in each eye before the model is consumed and the devices can easily be retrieved from the model.

Our MIGS models require the SimuleYE MIGS Kit 2.0 which provides a platform to support the eyes and simulates the turned head position which is needed for visualization of the angle during MIGS surgical procedures.

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## MIGS Models

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### SimuleYE® XEN

This model was developed in conjunction with Allergan specifically for training with the XEN® Gel Stent. The eye provides anatomic landmarks which can be visualized with a gonioprism and the use of viscoelastic. There is also a conjunctival layer so that various implantation techniques can be practiced including AB-Interno, AB-Externo and Transconj. Multiple stents can be implanted around each eye.

The SimuleYE® MIGS Kit 2.0 is not required for use of this model. A flat and smooth surface is required to attach the suction cup base as with our other models. We recommend the Elevated Base for stability and proper positioning.



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### SimuleYE® iTrack

This model was designed specifically for the Nova Eye Medical iTrack catheter to practice the procedure. When used in conjunction with the MIGS Kit 2.0 to simulate head tilt, the angle structures can be visualized with the use of a gonioprism and gel. A pre-placed opening in the pigmented TM allows for placement of the iTrack catheter through a pre-placed side port incision. Advancing the catheter into and along the canal allows visualization of the red blinking light on the outside of the eye. With proper care this model can be reused multiple times.

## Accessories



### SimuleYE® Elevated Base

The Elevated Base provides a stable and reusable platform to securely hold any SimuleYE model with a suction cup base. It is ideally suited for all of the anterior segment models and the XEN model. The smooth surface of the vinyl sticker allows for great suction while the weight and non slip feet provide stability. Allows quick and easy positioning of the eyes under the microscope. May be used in conjunction with the Base Tray to provide additional hand support and to catch any fluids from anterior and posterior segment training.



### SimuleYE® MIGS Kit 2.0

Version 2.0 is ready to use out of the box (no assembly required) and much easier to adjust for head tilt and eye positioning.

The main support structure is pre-assembled and requires little to no assembly. Simply make sure the suction cup is securely attached, adjust the positioning, attach a SimuleYE and you are ready to begin working. Fine tuning of “head tilt” and “eye position” adjustments is easy. Comes with 2 White Connector Clips to securely attach the eyes when needed.



### SimuleYE® Slit Lamp Stand

The Slit Lamp Stand provides a platform to securely hold the SimuleYE models while performing laser procedures. It is to be used with SimuleYE® YAG, SLT and LPI models. The stand will allow the eye to be positioned in the same location as a patient’s eye and will also allow for use of a laser lens when needed. Each stand is very robust and can be used and reused multiple times. The stand will hold up to 3 eyes at a time which is helpful for loading multiple eyes of one type for a given laser or for loading different types of eyes when working with combination lasers. The stand has a lot of adjustability and is designed to work with any slit lamp based laser delivery system.

## Accessories



### SimuEYE® Base Tray

The Base Tray is designed to be used in combination with the Elevated Base to support SimuEYE models and catch any fluids from anterior and posterior segment training. When used with the Elevated Base as recommended, positioning of the SimuEYE models as well as hand support can be optimized for the surgeon. The SimuEYE Base Trays can be easily cleaned and reused. They are very lightweight and the design allows for stacked storage and easy transport.



### SimuEYE® Viscoelastic Substitute

Viscoelastic Substitute in 5cc syringe with cannula, individually packaged.



### SimuEYE® Surface Coating Gel

Surface coating gel to improve visualization and decrease bubbles. Packaged in 10cc syringe with cannula.



Ophthalmic Surgical Training Models

Training Surgeons, Supporting Industry, and Improving outcomes.  
We are the world leader in Ophthalmic Surgical Eye Models.

**Check our distributor list at [simuleye.com](http://simuleye.com).**



**Dr. Stuart Stoll, M.D.** is a well-respected ophthalmologist in Beverly Hills, CA who knew there had to be a better way to practice and perfect ophthalmic surgical techniques. After completing residency at Georgetown University Medical Center, Dr. Stoll went on to pursue fellowship training in refractive surgery with Dr. Howard Gimbel in Calgary, Canada. Being a US citizen, Dr. Stoll was not allowed to perform cataract surgery in Canada during that time. Wishing to rapidly advance his surgical skills, he sought out ways to simulate the various intraocular procedures that needed to be mastered; and that's how SimuleYE was born!

Since that time growth has been rapid and word has spread internationally of the quality and benefits of the SimuleYE models. Dr. Stoll is a relentless innovator that supports ophthalmic industry partners to help implement their technology and ultimately help advance the field of ophthalmology to improve patient outcomes.

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