

# FUNDUS

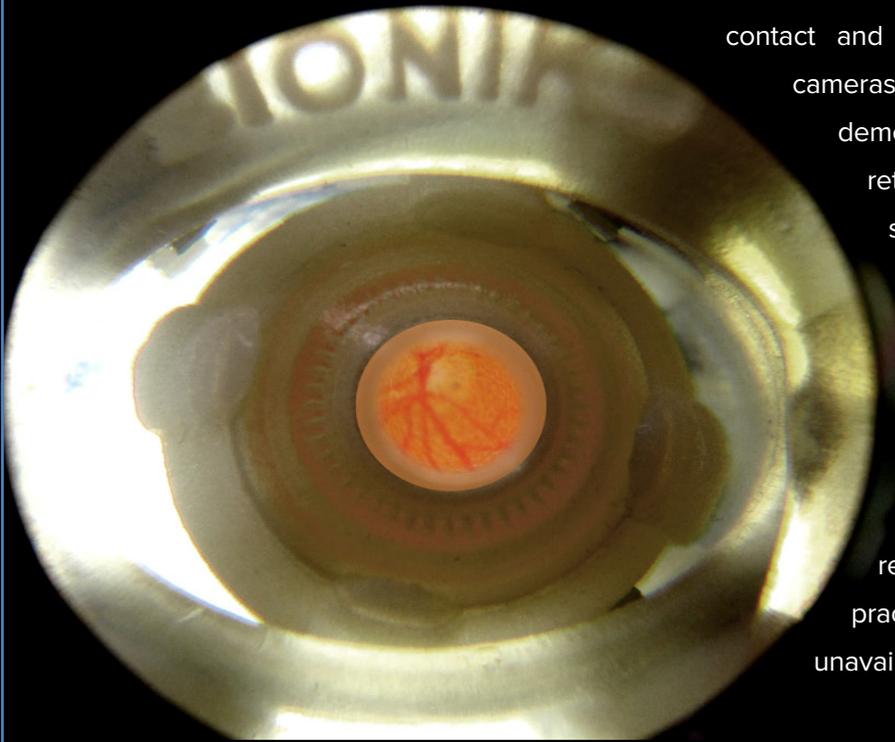
## Model



FUNDUS is an innovative model for posterior segment training and simulation. Its posterior segment includes a photo-realistic model of the central retina featuring macula/fovea, optic disc/cup and retinal vasculature with accurate superior and inferior arcades. Its anterior segment includes a central optical element and a flexible pars plana that allows surgical intervention.

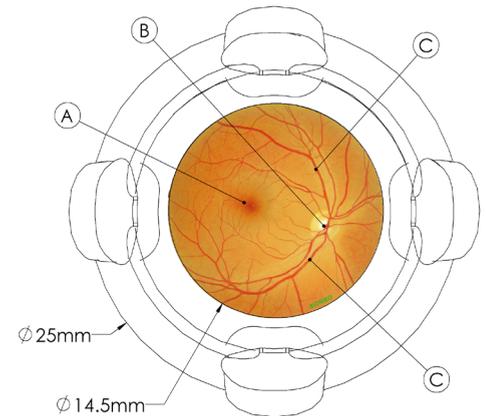
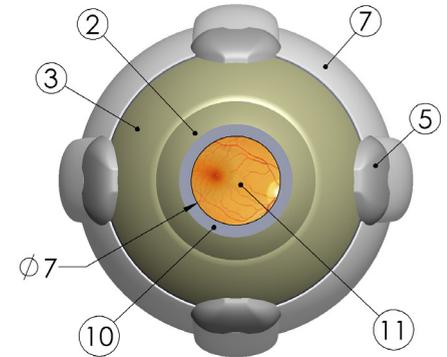
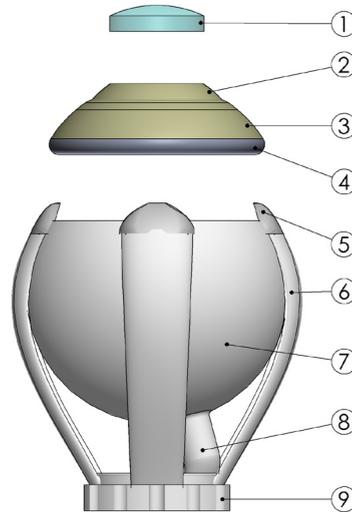
The model facilitates training in basic retinal examination technique and instrumentation such as indirect ophthalmoscopy, slit-lamp, contact and non-contact retinal lenses, and retinal cameras. It is also an exceptional tool for demonstration, practice and assessment of retinal instrument handling and microscope skills such as use of surgical contacts lenses, non-contact systems and inverters.

Its modular design allows insertion of foreign bodies or vitreous substitutes to enhance training scenarios. It also allows simplifications such as optical element removal and trans-illumination to facilitate practice where vitreo-retinal equipment is unavailable.



Pat. Pending

- 1 - OPTICAL ELEMENT\* (50D)
- 2 - CORNEAL RIM
- 3 - PARS PLANA
- 4 - SUPPORT RING
- 5 - MUSCLE INSERTION
- 6 - RECTUS MUSCLE
- 7 - GLOBE
- 8 - OPTIC NERVE
- 9 - BASE
- 10 - IRIS\*
- 11 - FUNDUS\*
  - A - MACULA/FOVEA
  - B- OPTIC DISC CUP
  - C - VASCULATURE/ ARCADE

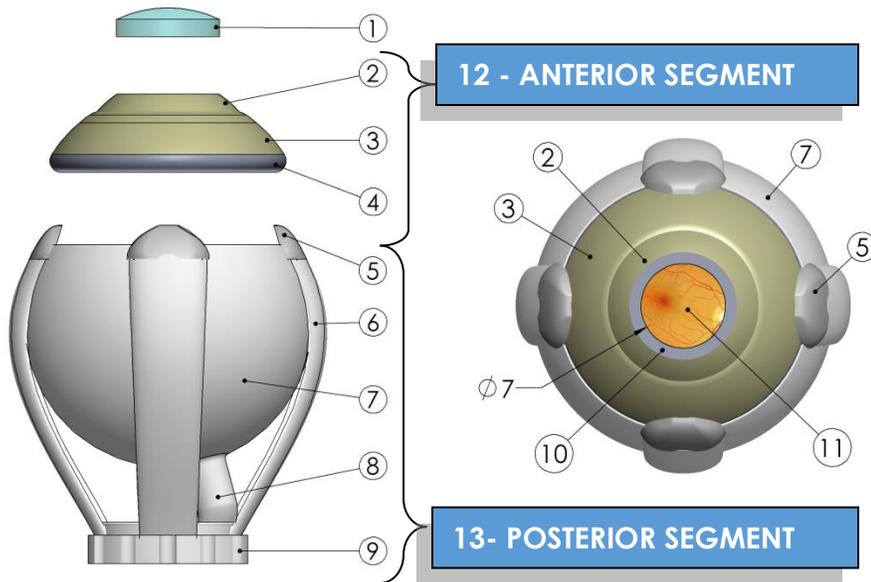


## FEATURES AND BENEFITS

- Retinal model with macula/fovea, optic disc/cup and retinal vasculature with accurate superior and inferior arcades
- Removable optical element simulates optical power of the eye
- Removable anterior segment facilitates creation of surgical scenarios
- Flexible pars plana allows surgical instrument insertion
- Translucent body enables transmitted/retro illumination

*\*Custom special orders: Iris 1mm-8mm, optical element AR coating, ILM,, retinal pathologies*

Watch an instructional video: [www.youtube.com/user/BionikoDesign](http://www.youtube.com/user/BionikoDesign)



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## MODULAR DESIGN

The modular design allows removal (and replacement) of the ANTERIOR SEGMENT (12) and OPTICAL ELEMENT (1).

### ANTERIOR SEGMENT

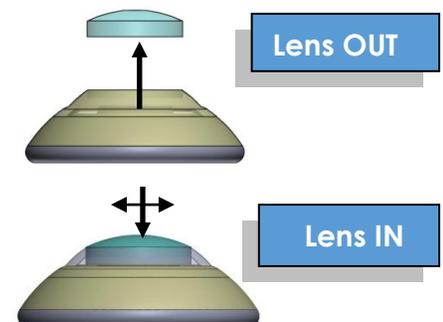
To remove the ANTERIOR SEGMENT (12) gently squeeze the globe to release the SUPPORT RING (4).

Re-attach the ANTERIOR SEGMENT (12) by placing the SUPPORT RING (4) under two muscle insertions first. Gently squeeze the globe to insert under the third and fourth muscle insertions ([see video](#)). Once the anterior segment is under the muscles insertions, press on all sides to make sure the support ring is properly seated and no gaps are visible.

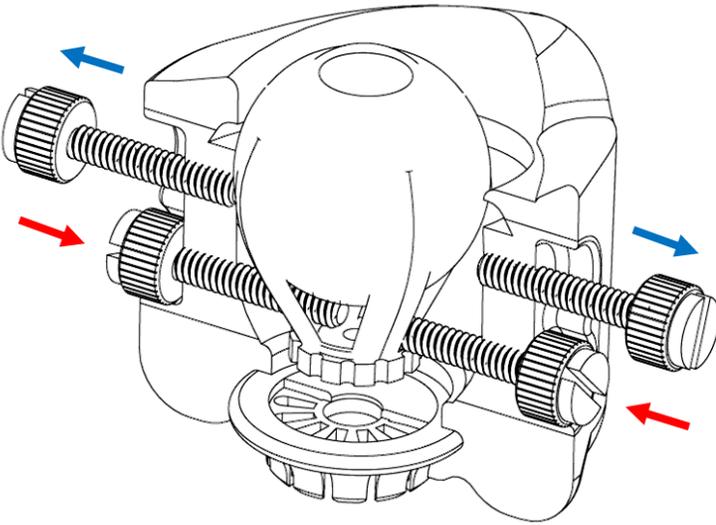
### OPTICAL ELEMENT

To remove the OPTICAL ELEMENT (1), push the lens out of the CORNEAL RIM (2).

To re-insert the OPTICAL ELEMENT (1), gently "jiggle" the lens side to side to get the elastic CORNEAL RIM (2) around the lens edge. **Do not push the lens in.**



## SETUP WITH BIONIKO FLEX-ORBIT



1. Open all the **FLEX-ORBIT** screws and lubricate cavity surfaces.
2. Insert the **FUNDUS** model with the OPTIC NERVE (8) on the nasal side.
3. Insert posterior screws to secure the model BASE (9) to the **FLEX-ORBIT**. Confirm RECTUS MUSCLES (6) are properly positioned; screws should pass between them (see figure).
4. Keep anterior screws retracted. This allows for the **FUNDUS** model to move freely inside the **FLEX-ORBIT** without restriction.
5. Fix the **FLEX-ORBIT** in place by pressing downward on a smooth surface to engage the suction-cup.

**NOTE: Lift the suction release tab to remove FLEX-ORBIT from surface. DO NOT PULL ON THE ORBIT!**

## INSTRUCTIONS FOR CARE

Follow these recommendations to maximize the life of your models:

- Store in a **cool, dry** and **dark** place (a drawer will be fine). Extended exposure to some indoor lights or sunlight (UV) may affect material properties. Prolonged exposure to humidity or high temperatures may adversely affect material properties.
- Do not place **heavy objects** on top of the model's box. Prolonged compression may deform the models.

## FAQ

- **Q:**Do I need to lubricate the model when simulating surgery?
- **A:**For best results lubricate the PARS PLANA region with water or water based lubricant gel as needed.
- **Q:**What happens when my anterior segment has too much use from surgical simulation?
- **A:** Anterior segment replacements are available in packs of 5 (no lens). Anterior segments with lens are also available in case the lens is damaged or lost.