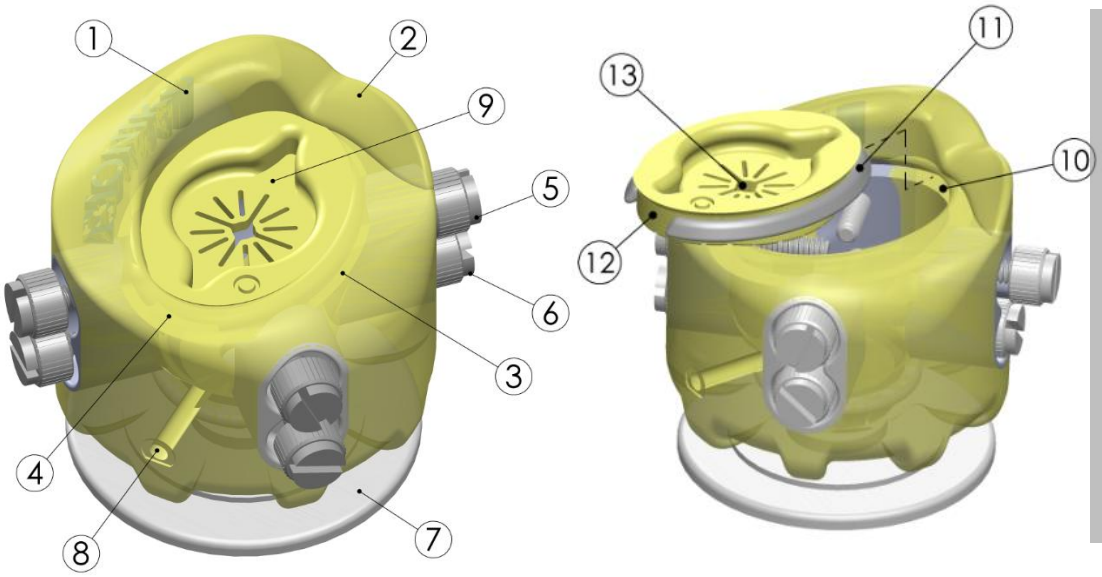
FLEX ORBIT
Modular Training Platform

BIONIKO MODELS

INSTRUCTIONS FOR USE

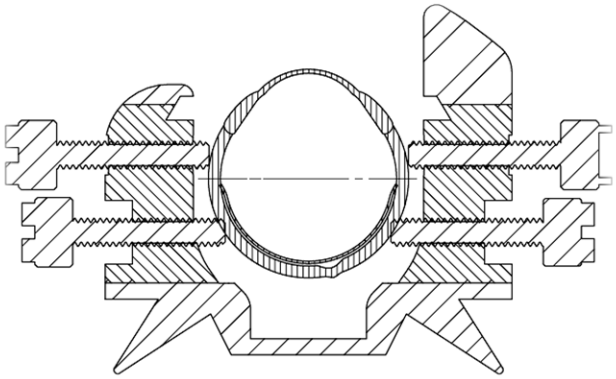
Watch an instructional video: www.youtube.com/user/BionikoDesign



1- SUPERIOR (BROW)
2- NASAL (BRIDGE)
3- INFERIOR
4- TEMPORAL
5- ANTERIOR SCREW
6- POSTERIOR SCREW
7- SUCTION CUP
8- DRAIN/PORT
9- SOCKET ADAPTER
10- ADAPTER GROOVE
11- SNAP RING
12- SNAP RING GAP
13- SOCKET BASE

Notes: For research use only.

For use with animal or donor tissue

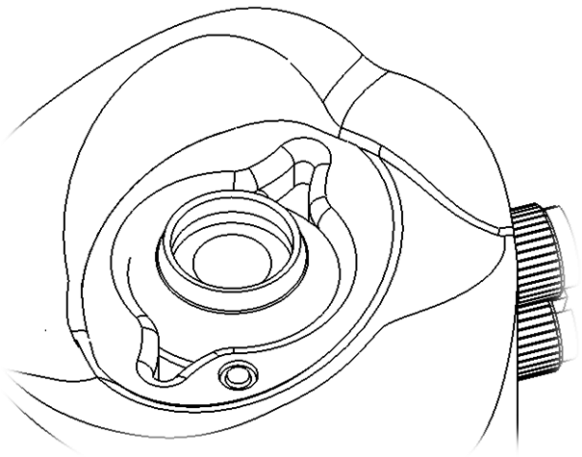


*Socket adapter is not needed for use with animal or donor tissue.

1. **Retract the four anterior screws.**
2. **Line the Orbit** cavity with a thin gauze pad. This acts as a fluid barrier and helps retain tissue.
3. **Position the globe** such that the globe equator is at or below the anterior screws.
4. **Adjust posterior screws** to adjust eye depth. Inserting these screws will support the eye higher in the orbit; retracting these screws will support the eye deeper in the orbit. All screws should be even for best results.
5. **Adjust the anterior screws to** restrict anterior eye movement. All screws should be even for best grip.
   TIP: Needles can be inserted into or through the **FLEX-ORBIT** body for additional eye fixation.
6. **Increase intra-ocular pressure** (IOP) if desired; adjust screws so that the anterior screws lie slightly above the equator of the eye. The external pressure of the screws against the sclera increases IOP.
7. **Position FLEX-ORBIT** according to the desired approach (temporal, superior). 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!

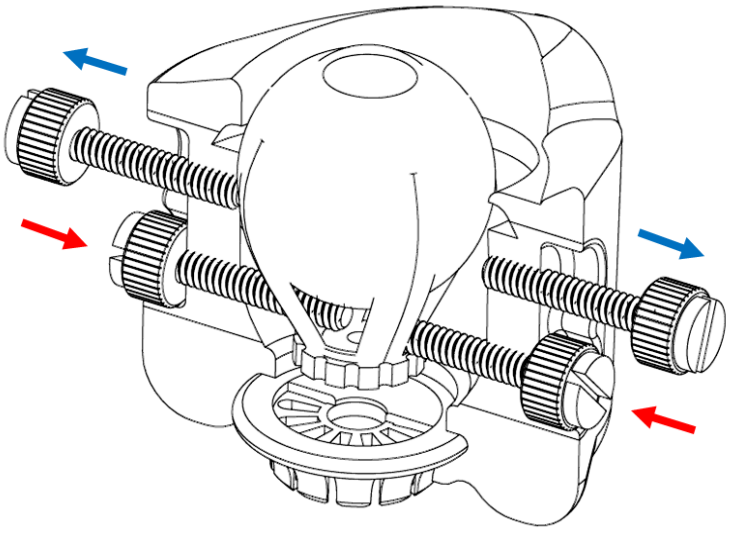
For use with BIONIKO anterior segment models



1. **Insert socket adapter**. Moisten the snap ring and squeeze into adapter groove (10). The snap ring gap, should be towards the temporal side of the orbit.
2. **Insert a BIONIKO model**. Moisten the socket eyelid. Insert an edge of the model under the superior eyelid and push the other side into the socket until the model is secure.
3. **Position FLEX-ORBIT** according to the desired approach (temporal, superior). **Fix** the **FLEX-ORBIT** in place by pressing downward on a smooth surface to engage the suction-cup.
4. **Remove used model** by inserting a blunt object in either corner of the eyelid and leveraging the model out.
5. **Remove socket adapter** by inserting a finger through the center of the socket base and pulling out.

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

For use with BIONIKO whole globe models



1. Open all the **FLEX-ORBIT** screws and lubricate cavity surfaces.
2. Insert the **whole globe** model with the OPTIC NERVE (5) on the nasal side (2).
3. Insert posterior screws to secure the model BASE (6) to the **FLEX-ORBIT**. Confirm RECTUS MUSCLES (3) are properly positioned; screws should pass between them (see figure).
4. Keep anterior screws retracted to allow the eye model to move freely inside the **FLEX-ORBIT** without restriction.
5. **Position FLEX-ORBIT** according to the desired approach (temporal, superior). **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!

Accessories (sold separately)

There are several accessories available that can complement and enhance the simulation/training experience and fidelity of the **FLEX-ORBIT** platform:

- **POSTERIOR-SEGMENT** model: Allows attachment of anterior segment models, such as the RHEXIS and KERATO tasks, providing them with the realism and mobility of whole globe models.
- **EYELID** model: Attaches to the adapter groove (10) on the FLEX-ORBIT, adding the realism and restriction of eyelids.

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.
- To clean the orbit after use, wash with water and anti-bacterial soap. Peroxide based sterilants such as Sporox ® II can be used for high level disinfection. **Do not use solvent based cleaning agents like: alcohol, bleach, etc**. **NOTE: DO NOT AUTOCLAVE**!

FAQ

- **Q:**Why is the **FLEX-ORBIT** sticky?

A:When new, the **FLEX-ORBIT** material feels "sticky". This is normal with elastomers and it will gradually smooth out with regular use. In the meantime, use water to lubricate surfaces.

- **Q:**Is there a way to further restrict tissue movement?

A: The **FLEX-ORBIT** allows needles to be inserted into or through its soft body for additional movement restriction of tissue or for perfusion of the eye (control IOP).

- **Q:**What are the drain ports used for?

A:The drain/ports can be used to remove excess fluid from the orbit cavity, perfuse the orbit cavity with fluid (to control temperature for example), or to allow small conduits (cables, tubing) to enter/exit the **FLEX-ORBIT**.

FEATURES AND BENEFITS

AVAILABLE

Training on demand for individual pace and needs

PORTABLE

Teach in the classroom, train in the OR and practice at home

REPEATABLE

Standardize training and assessment without model variability

AFFORDABLE

Surgical simulation tools at textbook cost

SIMPLE

Ready to use with minimum setup and assembly

SYNTHETIC

No refrigeration or special disposal required