



MAGES SDK
A POWERFUL TOOLSET

- Streamlines the process of creating high-quality medical XR simulations for training, assessment, teaching, and treatment.
- Allows you to author, create, update, future proof simulations with the best technology can offer, in a fraction of time and cost.




- Provide accurate user task performance assessment, capable of reflecting the educational impact, enabling trainees to identify their missing skills and weaknesses and improve them.
- Efficacy of MAGES built simulations proven in multiple PUBLISHED clinical trials.

 **MAGES SDK - FREE**
€0 Forever

[\[Unity Asset Store\]](#)


 **MAGES SDK - PREMIUM**
€2000 / Month incl. 10 Creator Seats

[\[More info\]](#)




Realistic

High-quality, immersive simulations that provide a realistic learning experience.



Adaptable

Easy-to-use authoring tools that simplify creating and updating simulations



Versatile

Scalable solution designed to meet the demands of any medical training program



Innovative

Embedding research into tech, for keeping your simulations up-to-date.

[\[MAGES SDK Introductory Video\]](#)

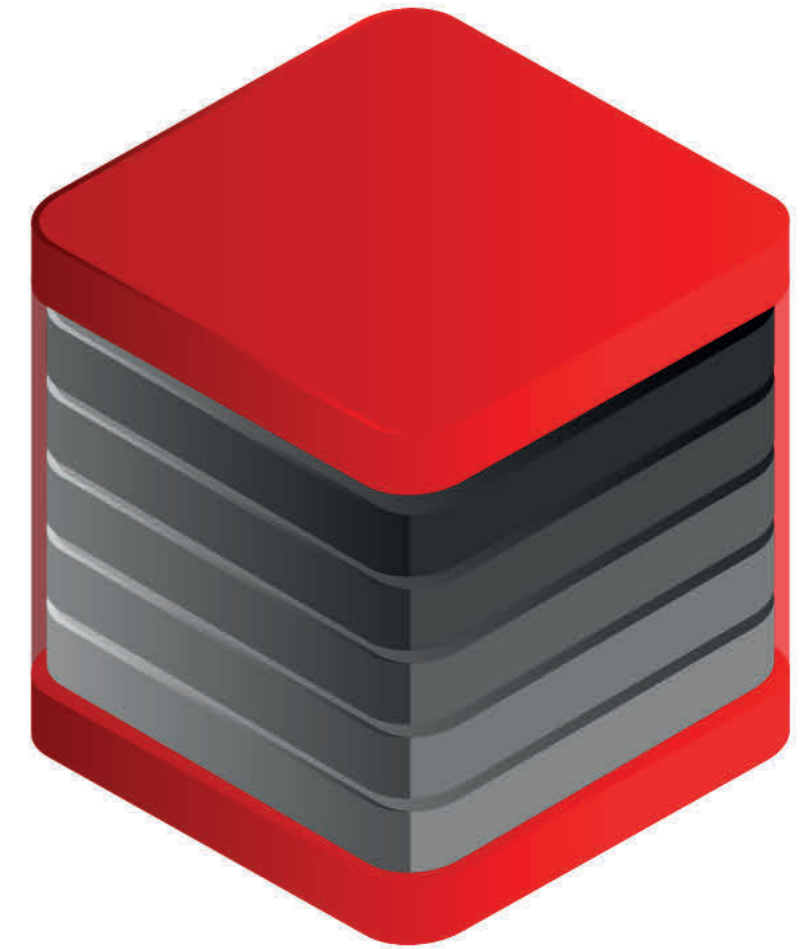


MAGES SDK NXT

MAGES NXT is the next step in XR development, evolving from the groundbreaking low-code MAGES 4.0 SDK to a no-code SDK. It incorporates 20 years of research, highlighted in a recent IEEE paper, to create a powerful XR platform based on cutting edge science manifested in over 50 research publications.

The **no-code** MAGES SDK simplifies XR development, making high-fidelity medical simulations accessible to all, advancing training technology.

Select, combine, and use modules with easy-to-understand interfaces, making development seamless for non-programmers.



Multiplayer with Geometric Algebra Interpolation

Networking
Hardware Agnostic Device Manager



Analytics

Competency and Performance Analytics
Session and User Data Container



Geometric Algebra Deformable Animation, Cutting, & Tearing

Realistic and Efficient Multi-user Interaction System



Editor With Action Prototypes

No-code Gamified SceneGraph Editor
JARIA, Just Another ARTificial Intelligent Assistant



Semantic Annotation of Actions & Objects

Interaction With Deformable Soft and Rigid Bodies

Accomplish more with MAGES

Healthcare Institutions

Whether you're a hospital, medical school, or surgical training center, MAGES SDK streamlines the process of creating high-quality medical XR simulations for training, assessment, teaching, and treatment

Med-Tech Companies

Author, create, update, and future-proof the best-in-class XR simulations for your medical devices with MAGES SDK.

XR Content Creators

Empowers you to create high-quality immersive simulations, providing a realistic learning experience, 8 times faster, at 8 times less cost.

Unlock unlimited potentials with **MAGES**



Multiplayer with Geometric Algebra Interpolation Networking

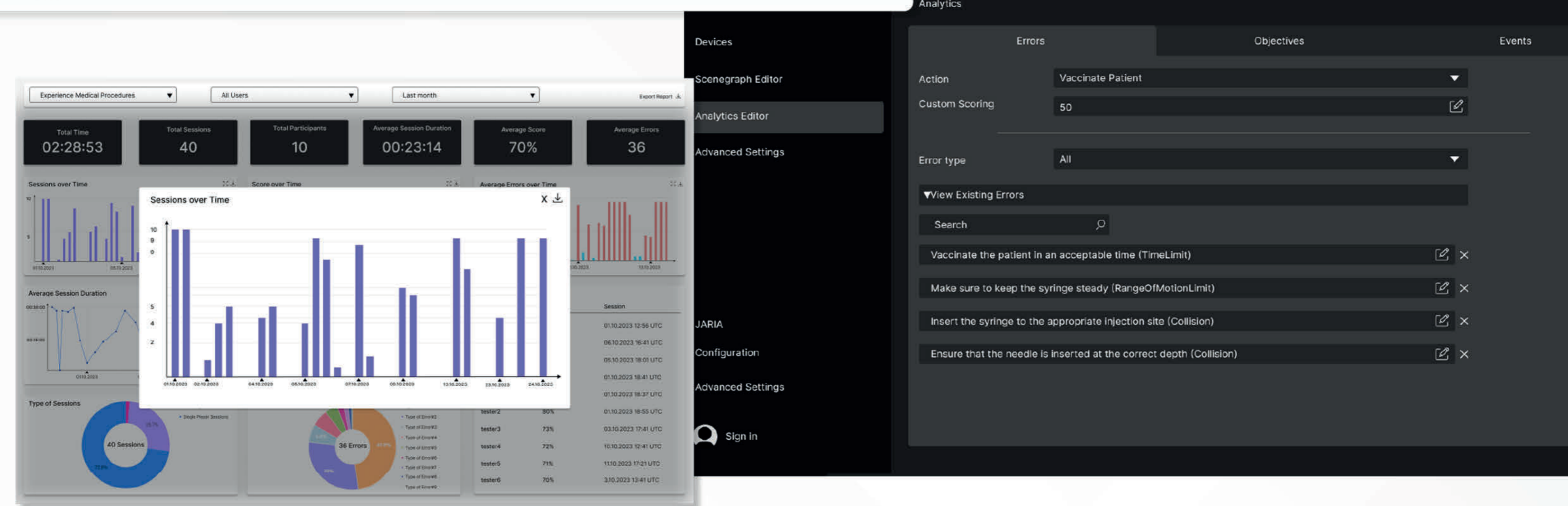


Effortless collaborative XR with a lean **Multiplayer Engine**, ensuring seamless and efficient interactions.

- a. Networking:** Connect up to 300 users from all over the world for advanced collaborative experiences.
- b. Device Manager:** Seamlessly integrate various hardware devices. Supporting XR and traditional input metaphors.



Analytics Competency and Performance Analytics



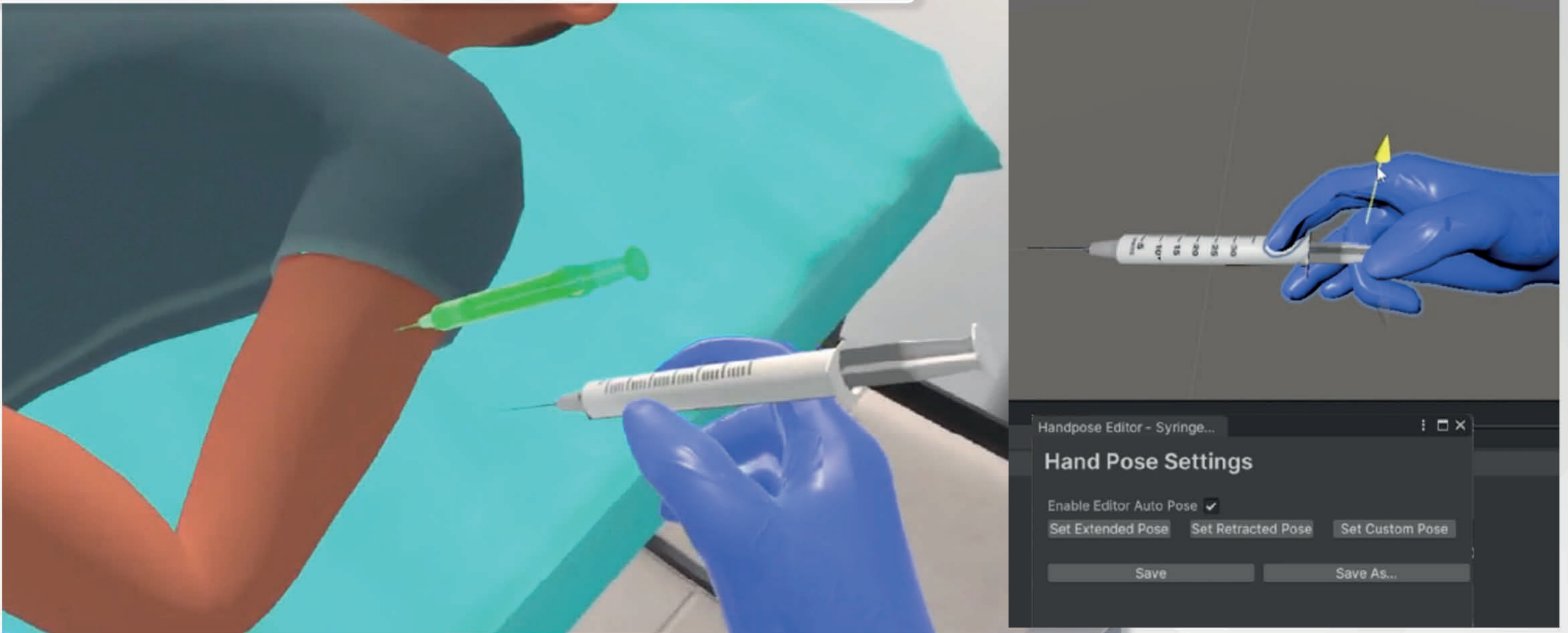
Advanced neural **Analytics** for tracking user progress with precision, optimized by geometric algebra for a more efficient XR development.

- a. Data Container:** Efficiently manage and organize your data.
- b. Analytics:** Analyze and assess user competency, performance, and engagement.

**G**

Geometric Algebra Deformable Animation, Cutting & Tearing

Realistic and Efficient Multi-user Interaction System



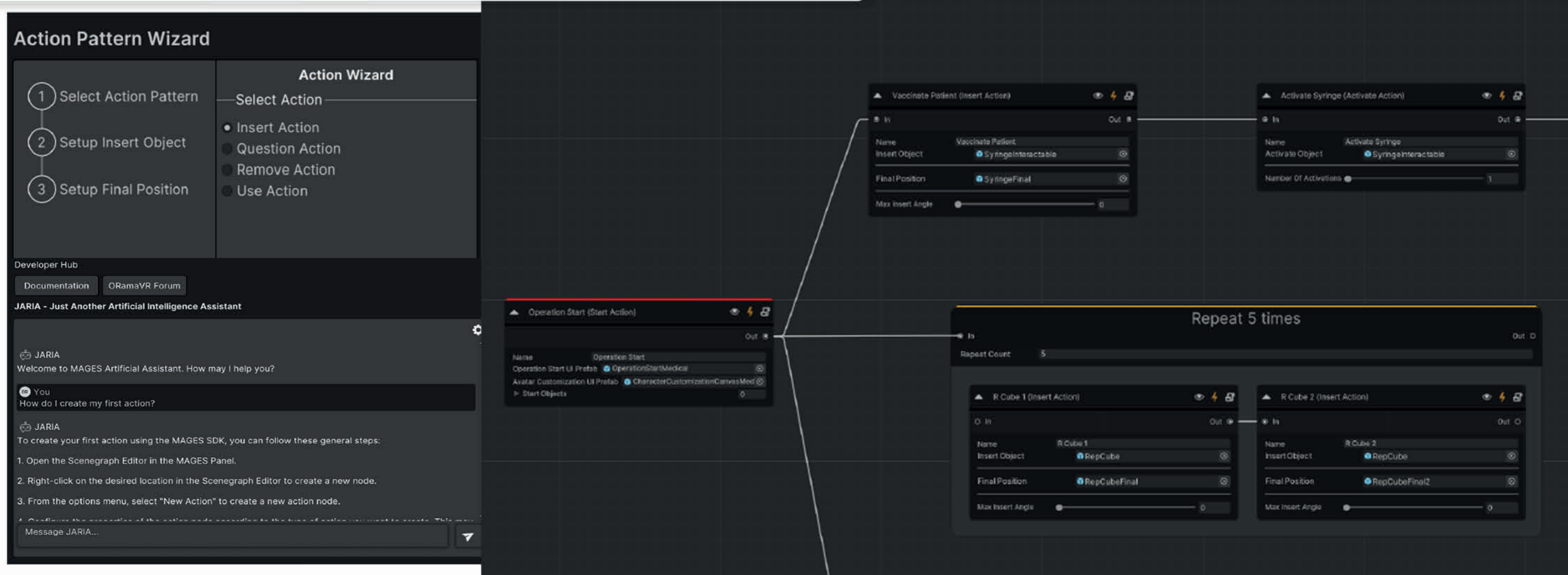
Precise control over tissue animations with **real-time deformation, cutting, and tearing**, for enhanced realism in XR.

a. Interaction: Create realistic user interactions.

E

Editor With Action Prototypes

No-code Gamified Scenegraph Editor



No-code visual scripting for easy XR content creation, making complex scenario prototyping straightforward.

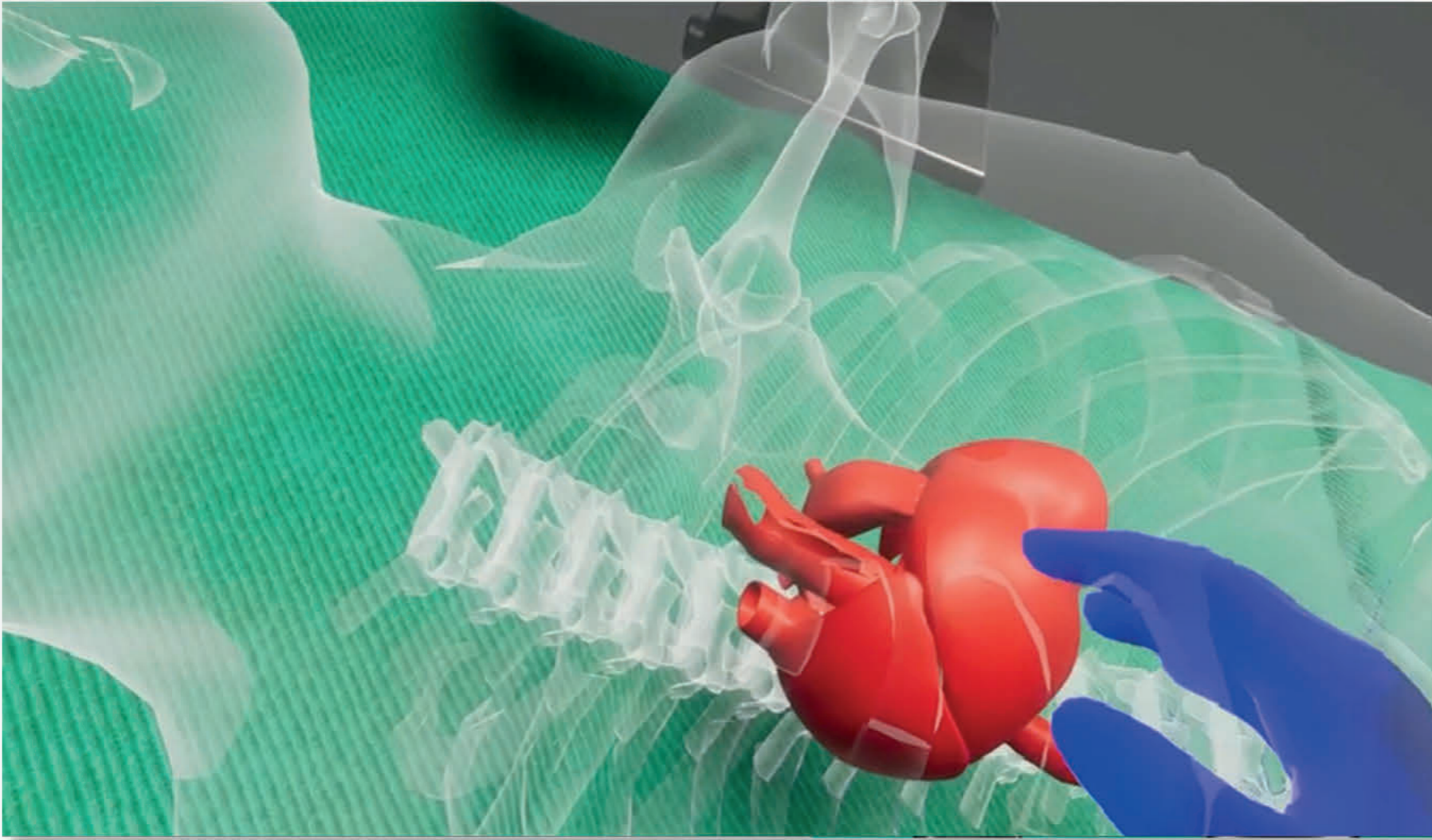
a. SceneGraph: Build advanced, non-linear, immersive and gamified medical scenarios.

b. JARIA: Custom AI co-pilot assistant for streamlined development and documentation exploration.



S Semantic Annotation of Actions & Objects

Interactions With Deformable Soft and Rigid Bodies



Real-time elasticity simulations for physically-principled tissues and organs, delivering unparalleled realism in surgical XR.

Upcoming Features

a. Dissected Physics Module for Multiplayer:

MAGES NXT introduces the groundbreaking "Dissected Physics Module" which allows you to offload physics and render computation to the edge/cloud.

b. Distribution, Licensing & Cloud Analytics:

MAGES SDK simplifies app licensing and distribution, offering a smooth path to market. In-depth insights are delivered via a central platform by the upcoming Cloud Analytics feature.

c. Cutting-Edge Progressive Tearing and Cutting:

MAGES SDK set a new standard for XR simulations with its advanced Geometric Algebra engine. It enables real-time, realistic tearing and cutting on soft-body models for lifelike surgical experiences across all devices, including mobile XR HMDs.

[\[VIDEO\]](#)

d. XR Recorder for Automatic Assessment and Debrief:

XR Recorder captures detailed sessions in compact files (1 MB/min), allowing for replay and in-depth post-training review."

[\[VIDEO\]](#)

e. Digital twin of the Surgical Robotic training experience:

MAGES SDK introduces a novel tool to simulate any robotic simulation (e.g. laparoscopic) with ease and native support. Our IK solvers can simulate a plethora of robotic articulations.

[\[VIDEO\]](#)

f. Embodied AI for assistant virtual characters:

By integrating speech-to-text and text-to-speech technologies with Large Language Models (such as GPT), developers can create virtual characters tailored to their content. Users can then communicate directly with the embodied AIs to request assistance directly from the virtual environment.

[\[VIDEO\]](#)