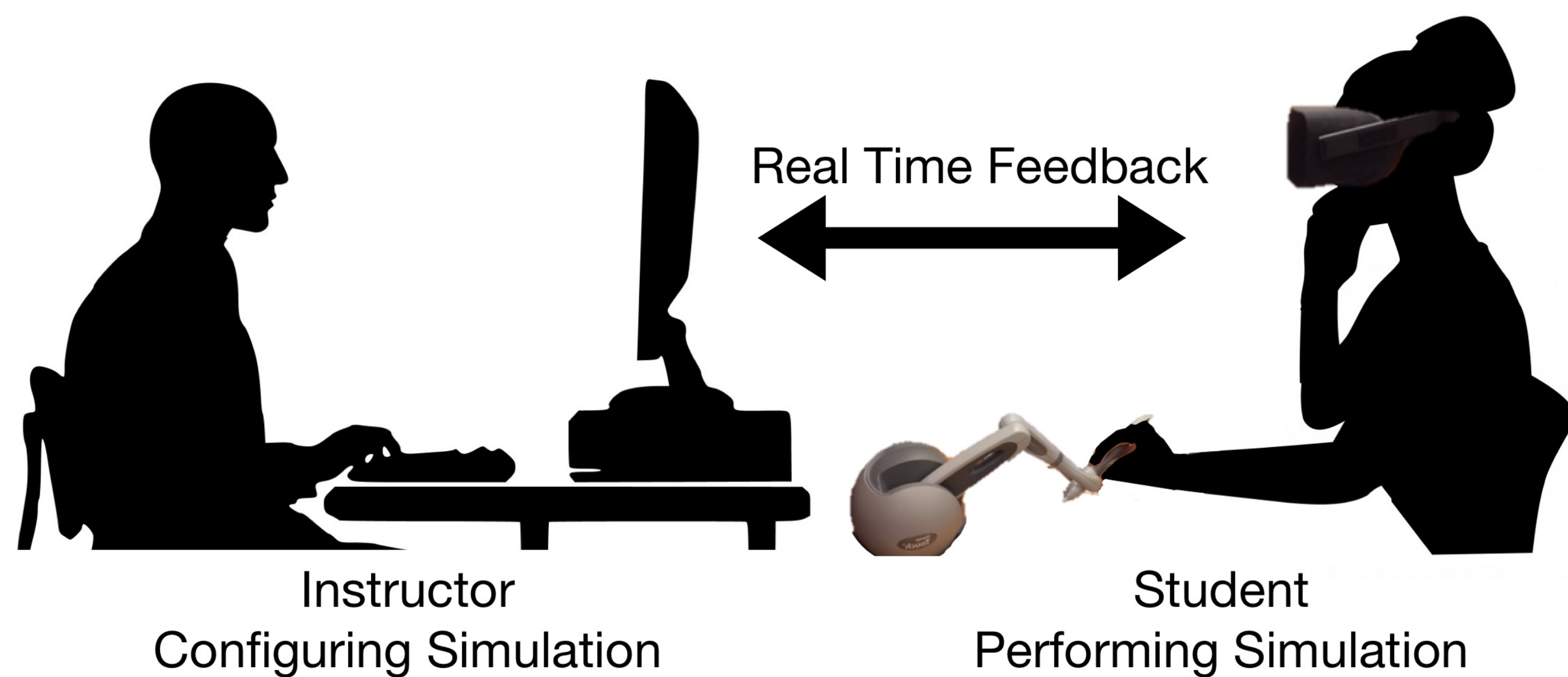


Haptodont: An Interactive Dental Simulation

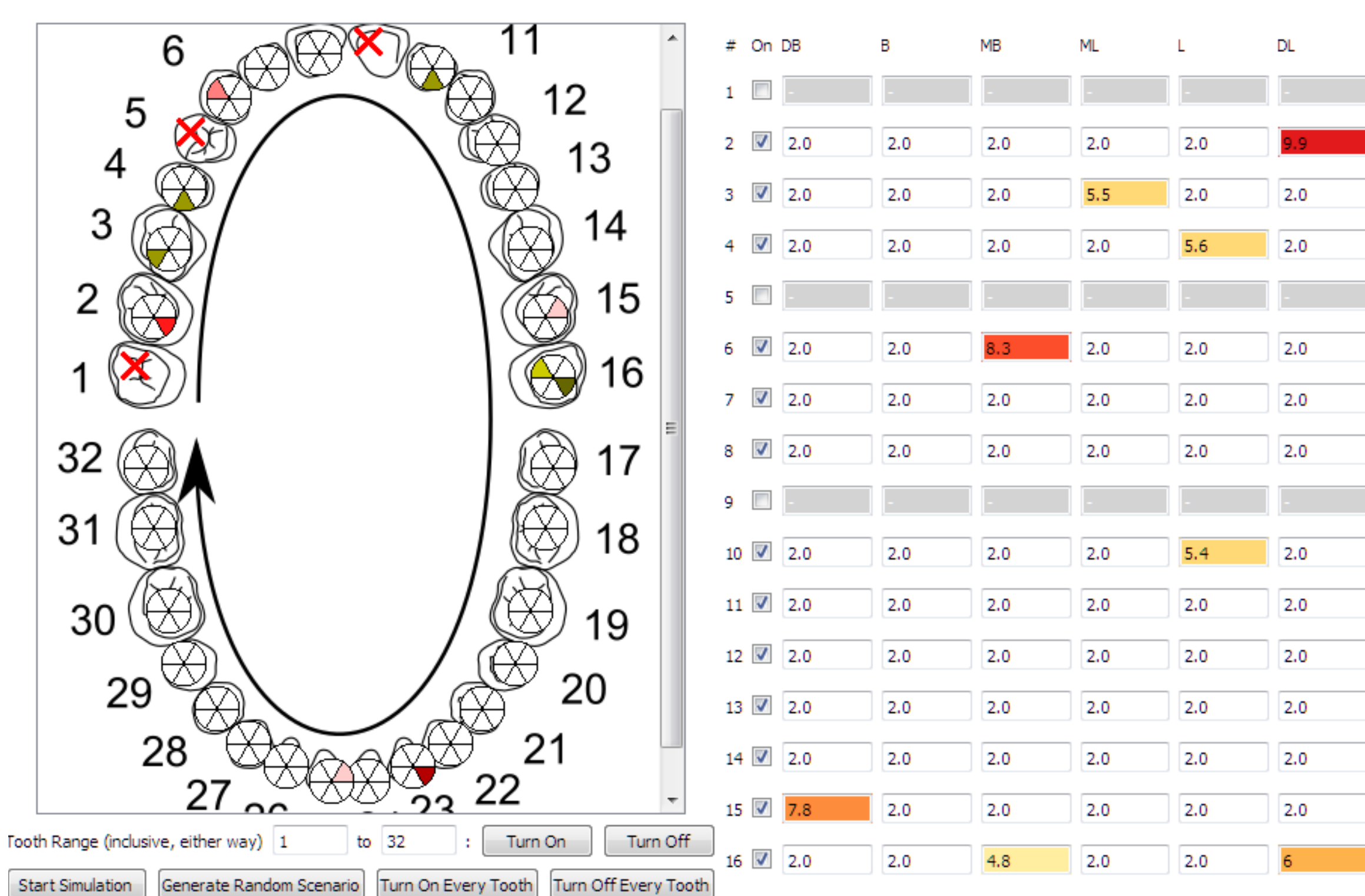
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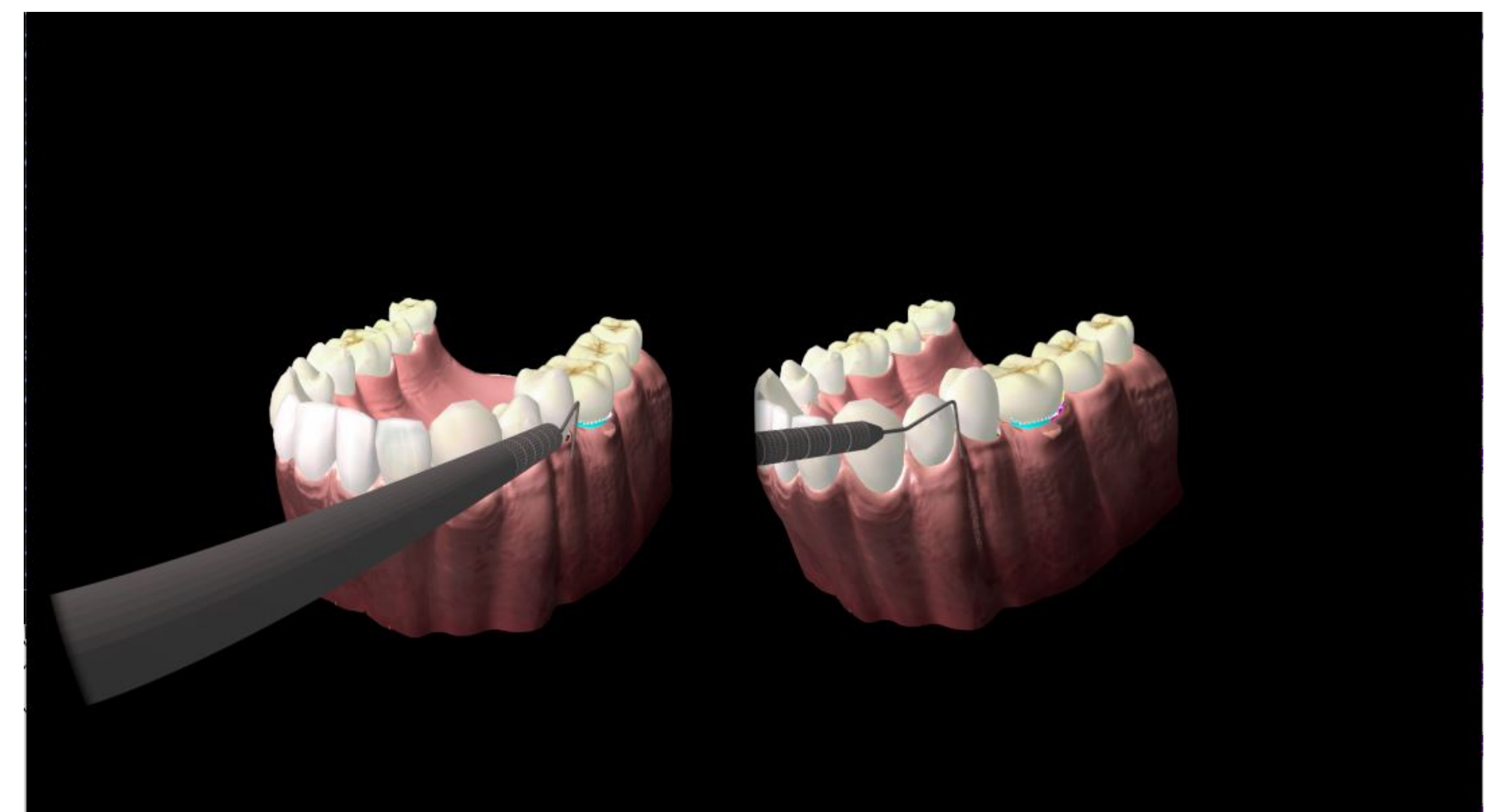
System Diagram of the Haptodont

- Conventional dental training involves actual patients or dental manikin
- We have been developing the Haptodont in order to investigate the use of haptic-based simulation as a cheaper, faster alternative



Dental Pocket Configuration GUI

- Configuration screen was developed using Qt, where an instructor inputs various tooth pockets configuration. The system was merged with CHAI3D and Oculus Virtual Reality libraries for model generation and an immersive display



Simulation view from VR Headset



Haptic Interfaces for Haptodont

- Through Haptodont, the students can probe the teeth through the haptic devices in an immersive environment
- The system is the first of its kind, instantly generating customized models out of nearly infinite combinations
- The simulation has been becoming more realistic based on feedback from NYU College of Dentistry

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AIM Applied Interactive Multimedia
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