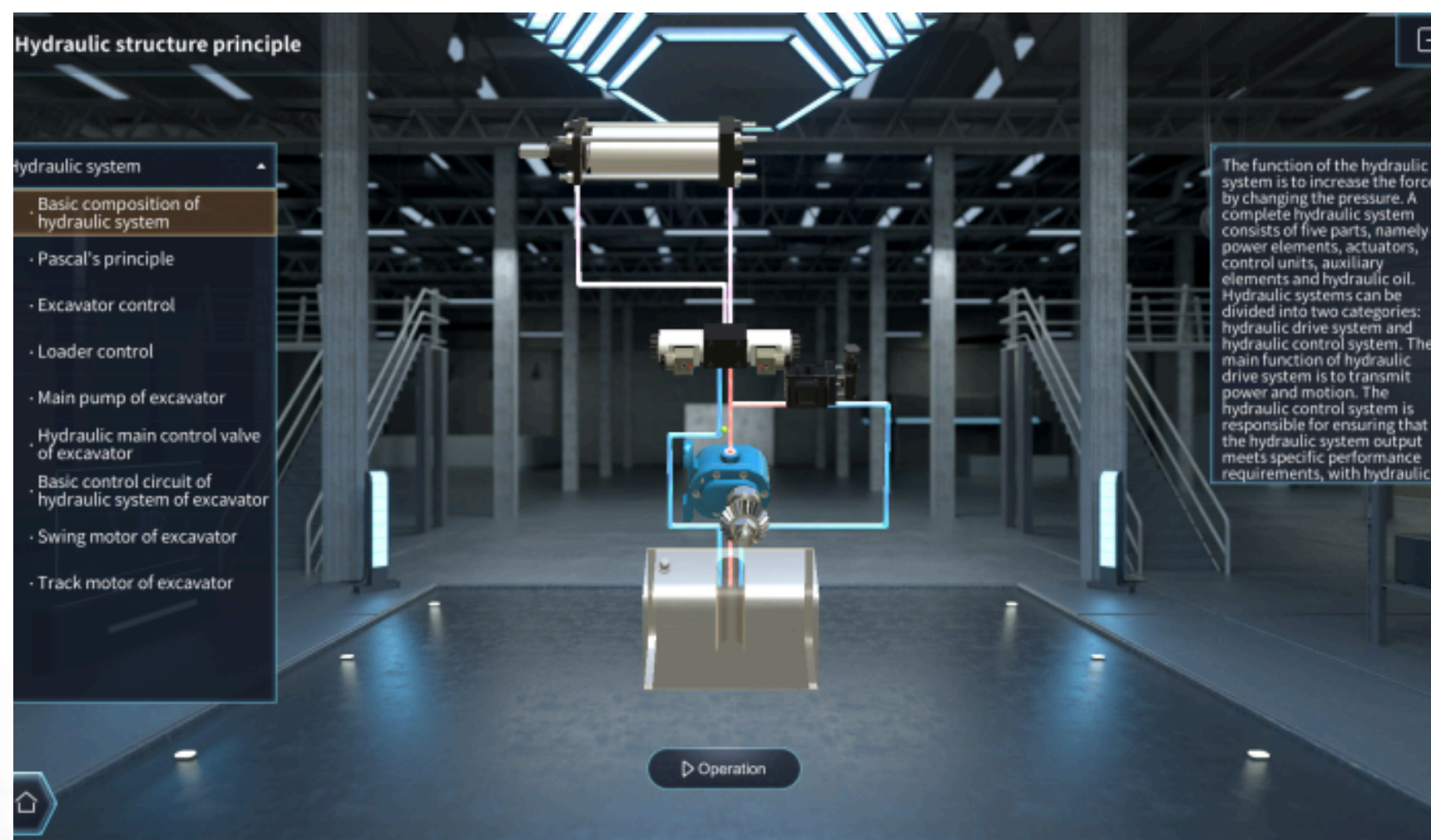
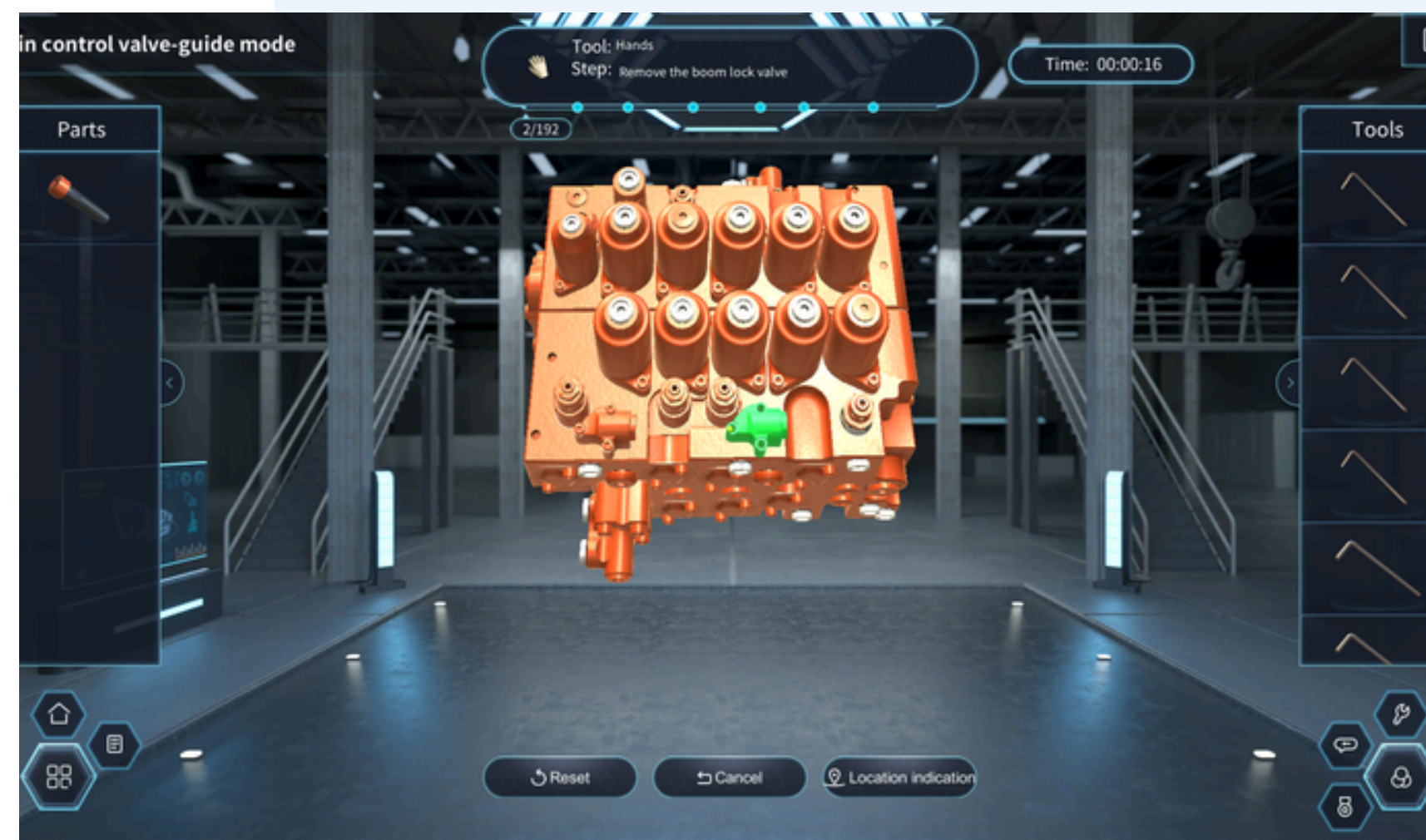


VR Software for Practical Training on Maintenance of Construction Machinery Hydraulic System

The VR software for maintenance and training of hydraulic systems in construction machinery is a practical teaching product designed and developed for **vocational colleges** and **applied undergraduate colleges** to assist in the teaching of construction machinery. This software is based on the hydraulic system of **LiuGong CLG922E excavator** and **CLG856H loader**, and is **modeled 1:1** according to the real structure. The software adopts the most advanced VR virtual simulation technology, which simulates the disassembly and principle demonstration of core components such as the walking motor, main control valve, and rotary center of engineering machinery through real data collection and university research.



Text description, model display, and work animation of the construction machinery hydraulic system structure principle



Interactive training exercises on disassembly of walking motor, main control valve, manual pilot valve, foot pilot valve, rotary center, rotary motor, and main pump



Interactive training exercises on assembly of walking motor, main control valve, manual pilot valve, foot pilot valve, rotary center, rotary motor, and main pump



Regarding slow and weak movement of excavator arms, no movement of the entire excavator, inability of the excavator to turn, slow and weak operation of loader arms, etc

Highlights

- The software is a teaching software developed for **the hydraulic system of construction machinery**. From disassembly training to installation training, it can freely switch between guidance mode, training mode, and assessment mode, record the training operation steps and duration, and comprehensively and effectively improve students' practical hands-on operation ability.
- The software not only provides teaching of theoretical knowledge points in professional materials, but also simulates practical operations such as **the disassembly and assembly of walking motors, main control valves, manual pilot valves, foot pilot valves, rotary centers, rotary motors, and main pumps**, achieving a seamless connection between theory and practice.
- The structural principle module allows for arbitrary dragging, free rotation, and scaling of the model; Clear and intuitive structure and principle analysis support operations such as **pausing, replaying, and model explosion**.
- Equipped with the leading **Desktop, All-In-One Virtual Holographic Interactive Desktop**, providing enhanced operational experience and advanced presentation effects.

Functionalities

Modules

Content

Structure Principle

Cognitive learning of basic components of hydraulic systems, Pascal's principle, excavator control, loader control, excavator main pump, excavator hydraulic main control valve, etc.

Disassembly Training

Disassembly of walking motor, main control valve, manual pilot valve, foot pilot valve, rotary center, rotary motor, and main pump.

Assembly Training

Assembly of walking motor, main control valve, manual pilot valve, foot pilot valve, rotary center, rotary motor, and main pump.

Fault Diagnosis

The excavator boom moves slowly and weakly, the excavator has no movement, the excavator cannot turn, the loader arm works slowly and weakly, and the loader cannot turn.