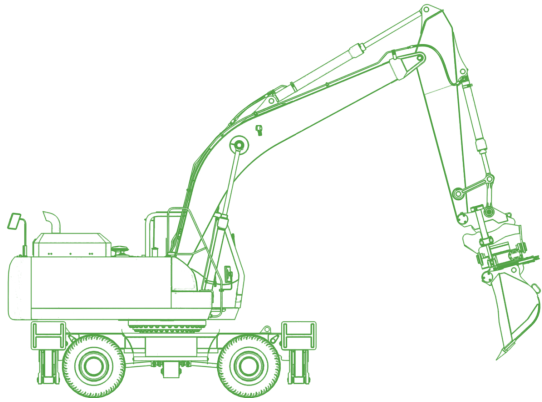


Wheeled Excavator Training Pack



Simulated Equipment Specs /

Product name: Wheeled Excavator
Included attachments (3): standard heavy duty bucket, narrow heavy duty bucket, tiltrotator bucket, with magnetic quick coupler

Operating capacity: 21 t (23 US t)
Engine power: 119 kW / 160 hp
Swing speed: 13.3 RPM

Overview /

CM Lab's Wheeled Excavator Training Pack is the only simulator on the market that authentically replicates authentic machine behaviors and soil, ensuring real-world training opportunities to help reduce the risk of accidents, improve situational awareness, and increase productivity – especially important for urban worksites.

Key features & benefits /

The exercises focus on safety, technique, and situational awareness. Automatically detecting safety violations — including contacts with power lines, hydrants, or people, hazardous load trajectories, and turnovers — the Training Pack captures objective scores to indicate technical proficiency, including completion time, movement accuracy, and bucket efficiency.

Progressive learning program covering standard excavator duties such as trenching, loading, handling and unloading materials in a realistic worksite.

Best-in-class vehicle simulation ensures trainees understand how the equipment works and what is required for efficient safe operations.

Performance metrics and reporting provides instructors with objective real-time feedback on operator aptitudes, habits, and overall scoring.



Best-in-class simulation provides real learning benefits

Composed of proprietary and patented algorithms, the Smart Training Technology™ ensures precision engineering of the simulated equipment, delivering the most transferable operator skills anywhere, outside the actual equipment.

The training is designed for operators destined to work in complex urban settings where focus and situational awareness is needed to control equipment and comply with strict safety protocols.

Trainees learn safe, precise driving and digging techniques to work in tight spaces, including live quick coupler changes for standard, narrow, and tiltrotator bucket attachments. While honing bucket control and capacity, operators develop a deeper understanding of engine and hydraulics behavior, significantly improving cycle times and overall productivity, while lowering equipment wear and tear.

Better understanding of the hydraulics, tipping behavior, wheel bounciness on various terrain, combined with the soil simulation ensure safe and efficient maneuvers. The simulated machine behavior helps operators gain a better understanding of engine actions and machine stability driving and operation in dense urban environments.

The Training Pack replicates true engine sounds, including hydraulics, variable RPMs, engine idling, and horns, that are critical audio cues for safe operation and productivity.

Supported hardware platforms

The training pack runs on CM Labs' motion-enabled **Vortex Edge Max**, the fully immersive **Vortex Advantage**, and the desktop **Vortex Edge Plus**.

Learning program

The Excavator Training Pack features progressive learning exercises—from beginner to advanced—designed to teach skills and build confidence:

- ✓ Controls familiarization
- ✓ Live quick coupler attachment changing
- ✓ Driving skills in urban environment
- ✓ Loading and Unloading a Trailer
- ✓ Arc Swipe
- ✓ Truck Loading
- ✓ Test Weight
- ✓ Freeform sandbox in urban environment to practice skills, creative problem solving, and good judgment

Instructors can also use the optional **Intellia Instructor** to trigger unexpected weather events.

Performance measurement

The Wheeled Excavator Training Pack gives trainers objective insight into performance and abilities. Trainers can measure performance metrics, such as:

- ✓ Completion time
- ✓ Cycle Time
- ✓ Cones touched or knocked over
- ✓ Volume of material excavated per bucket load and in total
- ✓ Safety violations & collisions: human contact, contacts with power lines, fire hydrant, vehicles, vehicle flip, and unsafe parking



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