



Digital Twins & Virtual Simulation

Interactive experiences.
Practical business applications.

Real-time 3D development for industry, education,
healthcare training and product configuration.

INDUSTRIAL SIMULATION / XR TRAINING / WEB3D

Real-time 3D, built around the way your business works.

Huanshi connects physical products, working environments and digital experiences. We develop interactive 3D applications for industrial training, medical education, exhibitions and online product configuration.

Simulation that goes beyond appearance

We connect detailed 3D models with software interfaces, operating procedures and feedback, so users can explore equipment and practise meaningful tasks.

Software and hardware, working together

Our work spans real-time engines, VR headsets, body and hand tracking, physical controllers, business systems and deployment.

A flexible technical delivery partner

From a focused interactive module to a complete training platform, we agree the scope, demonstrate progress and prepare the application for its intended devices.

EXPLORE THIS PORTFOLIO

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One experience. Many ways to interact.

Real-time engines, devices and communication protocols.



Immersive VR & spatial computing

Headset experiences for standalone and PC-based VR, including Pico, Meta Quest and HTC Vive. Spatial applications can also be scoped for Apple Vision Pro. Six-degree-of-freedom input supports object handling and navigation.

HEADSETS / 6DOF



3D across screens

WebGL applications run in supported browsers, while native builds serve desktop and mobile use. Rendering, interaction and asset budgets are tuned for each delivery platform.

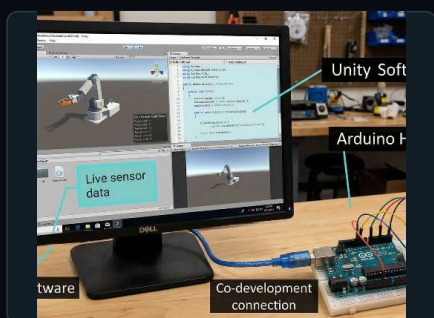
WEB / DESKTOP / MOBILE



Body & hand tracking

Kinect body tracking, Leap Motion hand input and spatial sensors turn physical movement into digital interaction. Suitable for exhibitions, teaching installations and touch-free interfaces.

KINECT / LEAP MOTION / SENSORS



Physical controls & integrations

Steering wheels, joysticks and custom instruments can exchange data with a 3D application through serial, TCP/IP and other agreed interfaces. Hardware feedback is matched to the simulation.

CONTROLLERS / SERIAL / TCP/IP

Your 3D / XR technical delivery partner.

Development support for agencies, integrators and solution providers.

You lead the customer relationship. We contribute the technical planning, 3D production and application development needed to deliver the agreed solution.

01 A clear scope and a practical proposal

We help shape requirements, break down the work and identify technical risks. Prototypes and demonstrations can support early decisions.

02 Source code and asset handover

Deliverables can include application source, editable project files and model assets. Ownership, reuse rights and third-party licences are defined in the agreement.

03 White-label collaboration

We can work as an extension of your technical team, with confidentiality arrangements and agreed boundaries for end-customer communication.

04 Delivery and ongoing support

Deployment assistance, handover documentation and a defined post-delivery support period are agreed with the project scope.

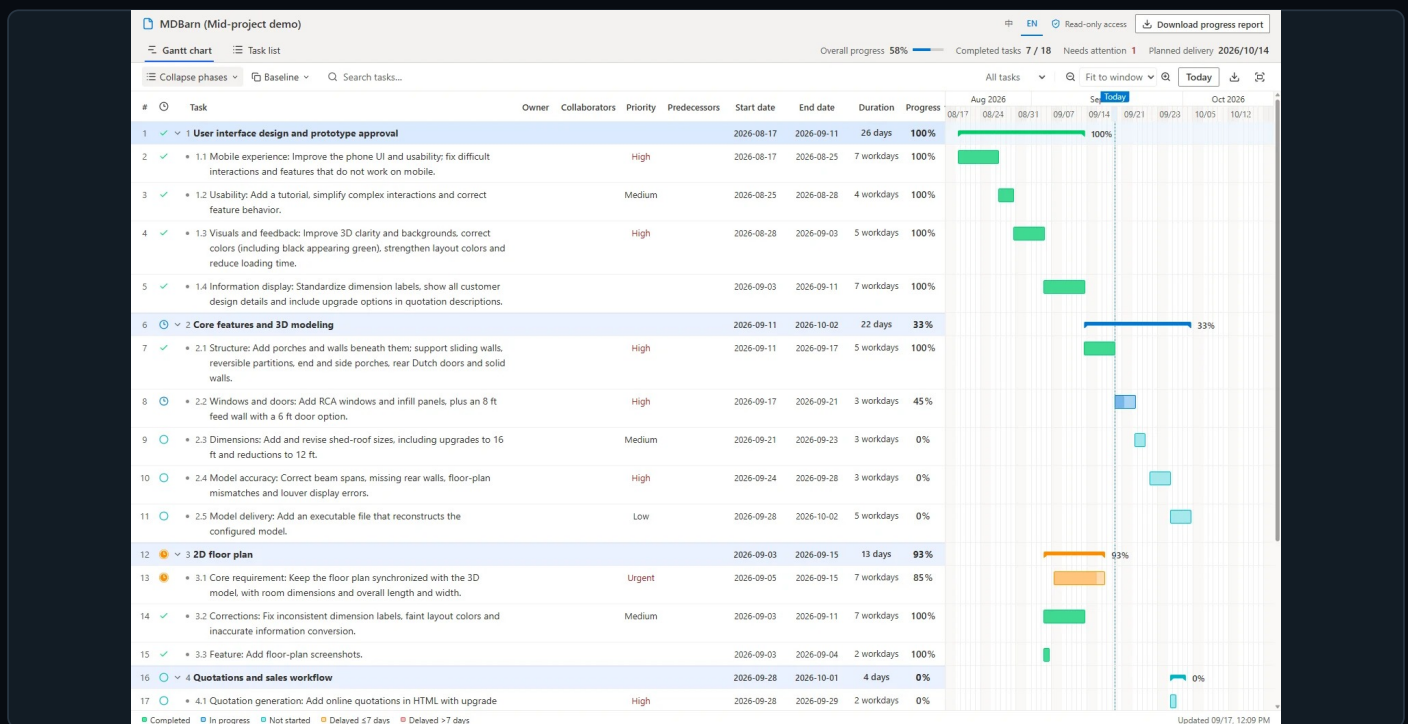
Start with a brief, a prototype or one clearly defined module.

A focused first step makes the next investment easier to assess.

See how your project is moving forward.

A shared plan, visible tasks and reviewable milestones.

Our own project-planning system gives each customer a shared view of their project. Follow task status, planned dates and dependencies through an online Gantt chart, with progress updated during development.



English view of the shared project schedule. The linked sample is illustrative.

01 Understand the plan

Requirements become defined tasks, owners and dependencies.

02 Review progress

A shared view helps identify changes and discuss schedule risks.

03 Approve milestones

Review visuals, models and interactions before the next stage.

Open the project collaboration example [↗](#)

Digital printing equipment. A complete virtual workflow.

Heidelberg Versafire EV training simulation.



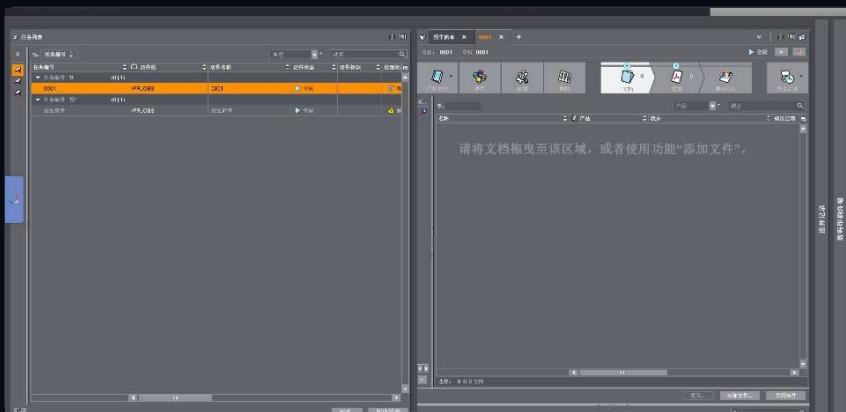
Explore the equipment in a virtual workshop before practising its operating tasks.

The challenge

Expensive equipment, limited workshop access and consumable costs can restrict hands-on practice. A training environment gives learners more opportunities to repeat procedures.

The approach

We combine a detailed 3D press with a simulated software interface. Learners move between the machine and its controls, from job preparation and operation to maintenance and fault handling.



Simulated production software.

**Practice.
Assess.
Repeat.**

Teaching and assessment workflows support structured skills training.

Connect every action to a visible response.



Exploded view of the equipment structure.

Linked machine and screen states

The 3D machine and its operating interface share the same process logic. A prompt on screen leads to the corresponding action on the equipment.

Maintenance with a sequence

A waste-toner replacement task can require opening the correct door, releasing the latch and changing the container before the fault is cleared.

Repeatable assessment

Operations can be recorded and compared with the expected procedure, supporting review of task completion and learner performance.

Structure, software and procedure in one training experience.

[View the current printing-equipment case study ↗](#)

Exhibitions that visitors can explore from anywhere.

Browser-based walkthroughs and interactive cultural content.



Salt-culture digital experience

A walkable environment brings traditional salt-making processes into an interactive setting. Visitors can explore the site and engage with brine collection, preparation and crystallisation.

AR object viewing, location-aware content and virtual-guide features can be incorporated into the agreed visitor journey.



History & public education

Immersive galleries connect historical spaces, archival media and guided learning.



Industrial parks & investment

Present a site, its buildings and supporting business information in a navigable 3D environment.



Universities & campus heritage

Bring campus landmarks, archives and collections into an accessible online tour.

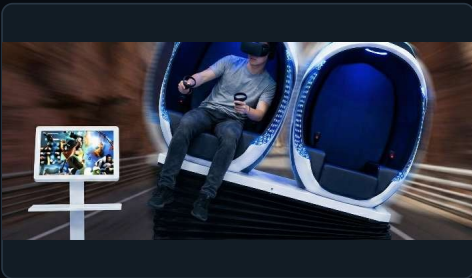
Practise the response. Experience the consequences.

Physical interaction connected to a controlled virtual environment.



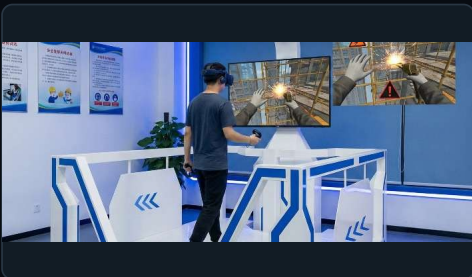
Fire-extinguisher training

An instrumented extinguisher links physical handling to the VR scenario, so learners practise the operating sequence with a familiar prop.



Three-axis motion platforms

Motion cues such as tilt and vibration are synchronised with the virtual experience through the platform control system.



VR walking & work scenarios

Headset and controller input supports exploration of hazardous workplaces and rehearsal of the appropriate actions.



Multi-headset teaching

A local-network control interface helps instructors start and manage content across multiple VR terminals.

REHEARSE HIGH-RISK SITUATIONS IN A VIRTUAL SETTING

Explore anatomy. Understand development.

Spatial learning through VR and body-tracked interaction.



VR anatomy teaching

A spatial environment for exploring the skeletal, muscular, nervous, circulatory and respiratory systems. Learners can select structures, inspect labels and understand their relationships in three dimensions.

TEACHING TOOLS

Layered systems and transparency / structure selection and separation

Cross-sections and internal views / annotations and teaching snapshots



Embryonic development through body interaction

An interactive timeline presents prenatal development. Kinect-based gesture input lets visitors explore the content without wearing a headset, while animated responses make the exhibit approachable.

Exposure scenarios & relaxation environments.

Configurable experiences for structured, supervised sessions.



A controlled virtual setting

Pico-based VR software brings graded environments and relaxation content into a professional-led workflow. Scenario parameters and session data can be managed through a supporting application.

Session control and connected data

Optional integrations include heart-rate sensors, HRV / SDNN metrics and hospital information systems. Encryption and offline storage requirements are defined for the deployment.



Graded environmental scenarios

Vary the objects, surroundings and interaction demands of an environment to match the session plan.



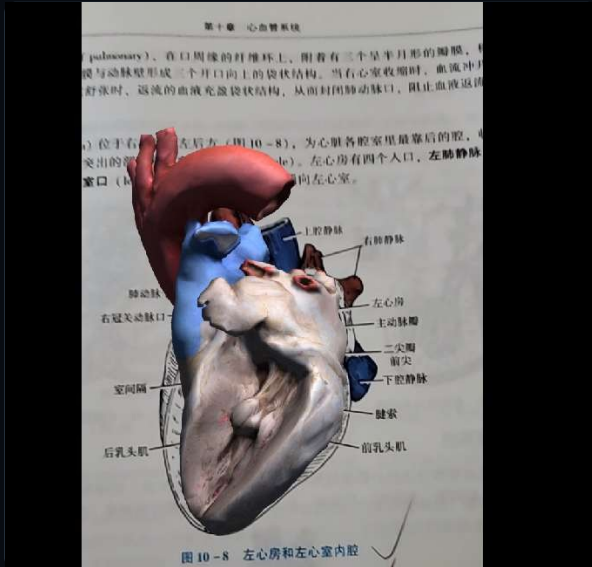
Public-speaking & classroom settings

Virtual audiences and classroom situations provide adjustable settings for supervised practice.

Software capabilities and integrations are scoped per project; clinical use is determined by the responsible professionals.

Spatial learning, with a lower barrier to entry.

Bring three-dimensional anatomy to books, phones and browsers.

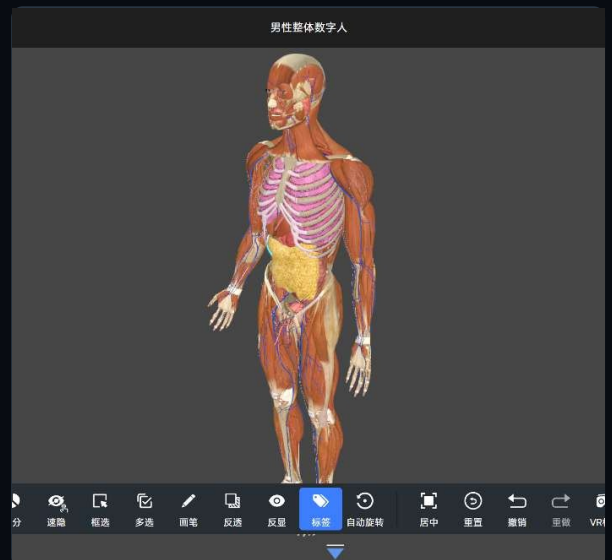


AR anatomy textbooks

Image-based recognition connects printed learning material to interactive 3D structures. Students can rotate and inspect models alongside the textbook, with learning activities adapted to the lesson.

Online 3D anatomy

A browser-based workspace makes anatomical structures available without a dedicated VR headset. Users explore body systems, select structures and change visibility to understand spatial relationships.

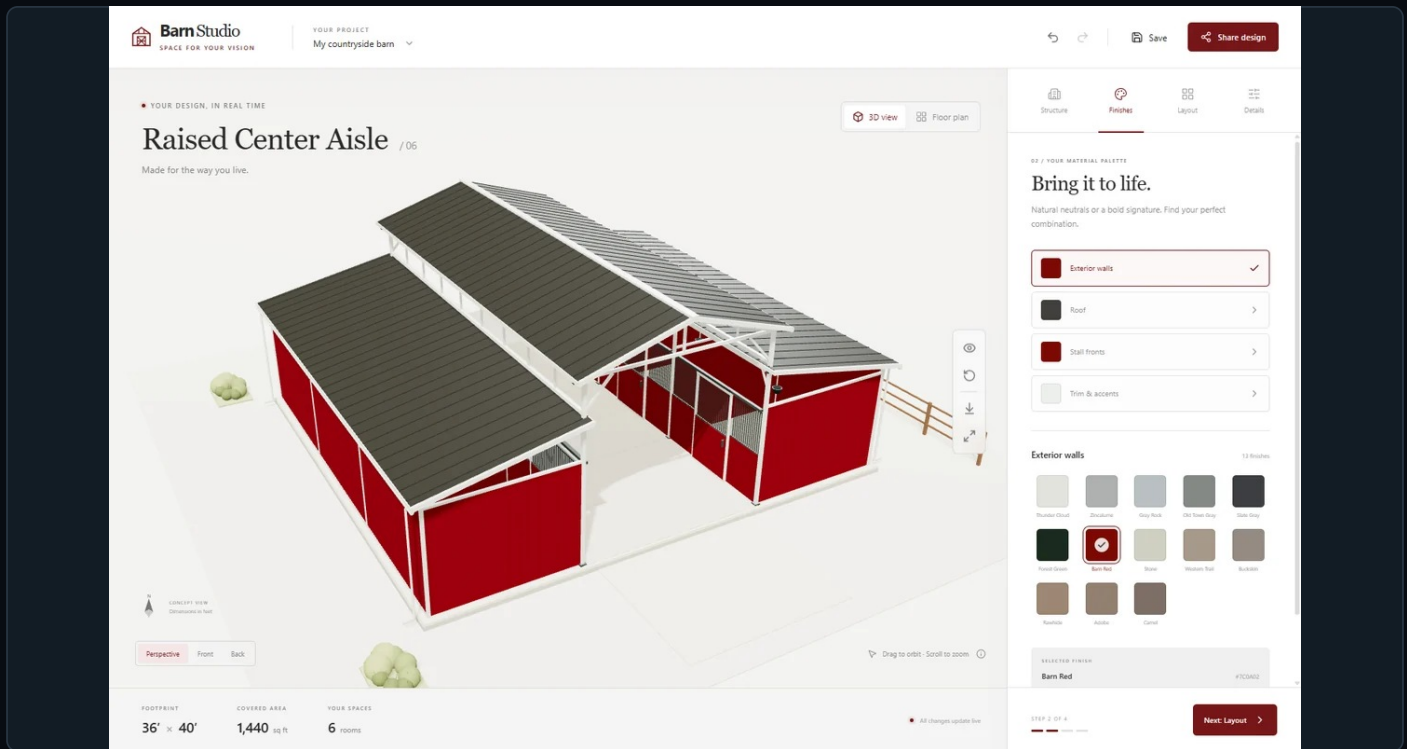


Explore the browser-based anatomy application.

[Open online anatomy ↗](#)

MDBarnmaster 3D barn configurator.

Change the configuration. See the proposal take shape.



The current configuration interface brings the 3D model and product options together.

For modular barns, a configurator helps customers understand the design while giving the sales team a more structured way to prepare a proposal.

01 Configure the details

Choose layouts, dimensions, doors, windows, partitions and finishes.

02 Keep 2D and 3D in step

A linked floor plan and dimensions reflect changes to the 3D proposal.

03 Connect design and quotation

Product rules can drive a bill of materials and pricing for the configured design.

Try the online barn configurator [➤](#)

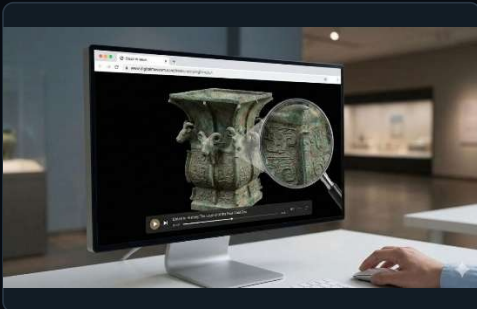
More ways to make complex ideas tangible.

Interactive solutions shaped around the content and audience.



Maritime history in VR

A first-person trading voyage brings the Maritime Silk Road to life. A physical steering wheel can connect the ship-handling experience to the virtual world.



Digital museum collections

Photogrammetry and detailed 3D assets support close inspection of artefacts, with contextual stories and browser-based access.



Physics & chemistry in VR

Interactive molecular visualisations make abstract processes visible. Learners can vary parameters such as temperature and observe the simulated response.



Greenhouse digital twins

A 3D dashboard connects the greenhouse layout with environmental readings. Equipment controls and IoT integrations can be added to the monitoring workflow.

LET'S BUILD SOMETHING USEFUL

Bring us the idea. Let's make it interactive.

Share your product, training task or project brief.
We can start with a prototype or a focused module.

EMAIL

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WEBSITE

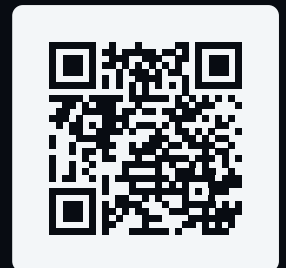
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