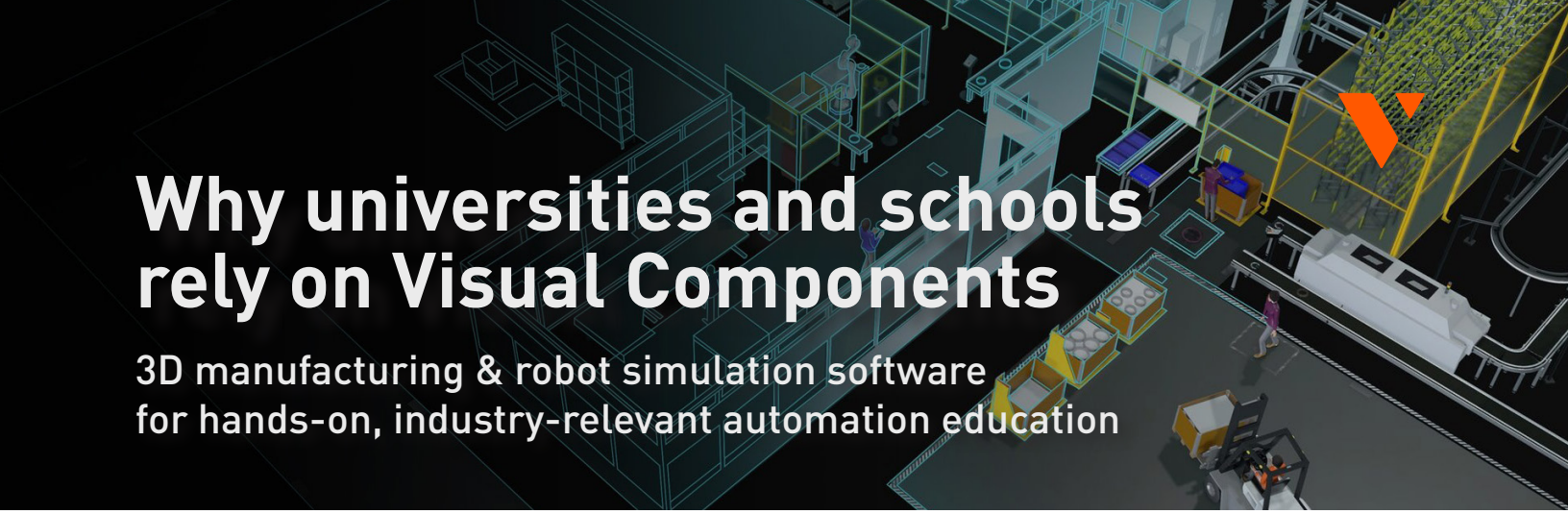


Why universities and schools rely on Visual Components

3D manufacturing & robot simulation software for hands-on, industry-relevant automation education

Why Visual Components stands apart

Engineering programs increasingly teach design, production systems, and robotics using virtual simulation — but many software options force a trade-off between ease of use, depth, and cost. Visual Components removes that trade-off, giving students one platform that scales from a first drag-and-drop layout to advanced robot programming, PLC-driven digital twins, and AI-assisted workflows.

Start Building, Not Setting Up

An out-of-the-box library of thousands of components, robots, conveyors, grippers, sensors, and machines lets students skip setup and get straight to system design and problem-solving.

Fully Open, Fully Customizable

Every component can be opened, inspected, and modified down to the last parameter. Built-in Python and C#/.NET scripting lets students go as deep as they want.

True Digital Twin Connectivity

Built-in connections to Siemens, Beckhoff, and Allen-Bradley PLCs, plus OPC UA and MQTT, link simulations to real controllers for virtual commissioning.

Works With Any Robot Brand

Native support for ABB, KUKA, Yaskawa, Universal Robots, FANUC, and dozens more lets one platform serve a mixed robot fleet.

Real offline programming, real robot code

Generate production-ready robot programs for dozens of brands directly from the simulation.

Ready for where the industry is heading

Human simulation, ergonomics, and open APIs for custom AI and agentic workflows.

Built for the classroom

- Affordable, full-suite education licensing — every module and robot brand included.
- Persona-based tutorial library, so instructors can hand students a ready-made learning path.
- Flexible deployment — campus computers, VPN-based access from home, or offline license borrowing.
- Widely adopted in industry, so students graduate with hands-on experience in a tool employers already use.