



SMARTSOURCE

BUILDING AN LED WALL WORTHY OF SHOWCASING A CLIENT'S SMART MANUFACTURING TECHNOLOGY



What can an audiovisual production company do to “out-innovate” an innovation-themed installation inside a customer’s premier annual in-person event? SmartSource found out by building the backbone of a visual narrative for a client’s annual innovation showcase.

The client is a global leader in industrial manufacturing. With a commitment to enable the next generation of smart manufacturing, its current focus is on Artificial Intelligence (AI), robotics, and augmented reality.

The showcase, an annual pilgrimage for thousands of the client’s customers, features over 100 interactive exhibits depicting the firm’s innovations of the preceding year. The firm leveraged SmartSource’s deep expertise in LED walls to help illustrate its innovation roadmap.

DOING THE MATH

The installation, featuring a curved 157-foot-long wall of innovation imagery and a separate 30-foot-long virtual reality (VR) display, presented several challenges:

- Delivering an immersive, high-resolution viewing experience at eye level—most LED walls are viewed from a distance; thus, they don’t require a resolution beyond what standard LED tiles offer
- Securing the curved, ground-supported walls onto an uneven surface—the concrete floors of an exhibit hall aren’t level enough to accommodate LED walls with hundreds of tightly knit tiles
- Projecting content in the optimal resolution and aspect ratios onto the tiles and adjusting images on the fly to achieve the optimal appearance and movement

DEPLOYING THE RESOURCES

SmartSource called on several internal resources to complete the project. A team of Solutions Architects provided exacting specifications for the LED tiles, cabling, support (truss) infrastructure, and electrical power and formatted the client’s video and graphics to fit the LED “canvas.” A crew of LED specialists painstakingly built, leveled, and cabled the larger wall and connected a bank of virtual reality headsets to a separate wall that displayed what attendees saw on their VR headsets.

To build what became a winding canyon of moving images and graphics on the main wall, SmartSource used 1.9-millimeter (mm) LED tiles (the industry standard is 2.6 mm) to deliver a high-resolution viewing experience. The construction process required continuous micro-adjustments to ensure the structure's integrity as it navigated curves. The content was also a work in progress, as technicians changed images and adjusted resolutions to deliver what became one continuous innovation story.

“This experience really wowed me, as this is the highest resolution and most immersive virtual automation experience I’ve seen.”

- Senior Product Manager



SMARTSOURCE

CAPTURING A VISION

On completion, the centerpiece of the installation consisted of:



While complex from a design and installation perspective, LED walls are the most flexible, visually stimulating, and immersive tools in the display toolbox. They are also a SmartSource specialty. So, how does a firm that channels innovation capture the technology, solutions, and future of manufacturing in one place and time? It calls SmartSource®.

Click [here](#) to see the wall in action.