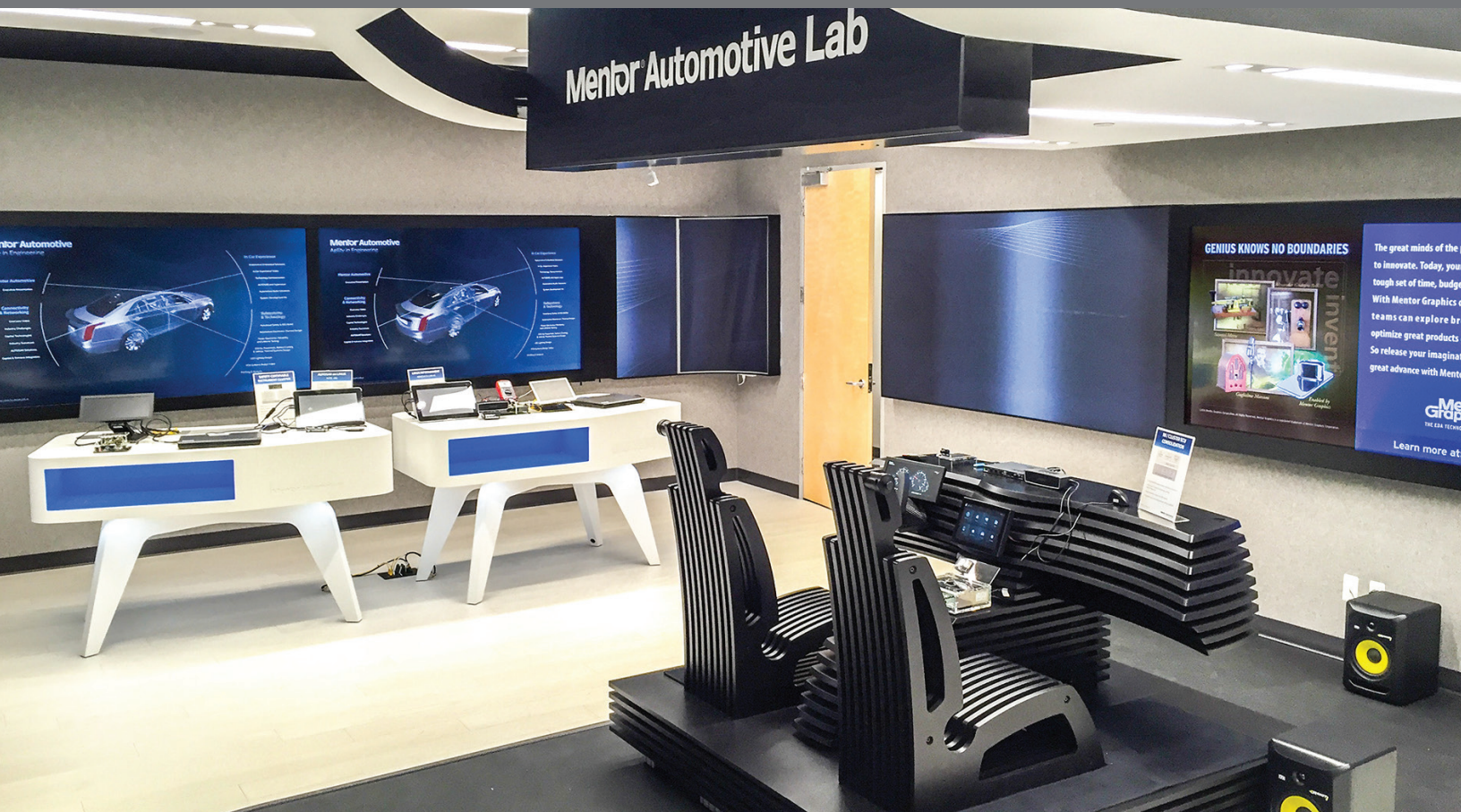




Products

Clarity Matrix LCD Video Wall System
Planar UltraRes Touch
Planar PS Series

Location

Novi, Michigan

Industry

Automotive

Application

Demonstration Center

Partners

Diversified
Downstream

PLANAR DISPLAYS HELP PAVE 'ROAD TO INNOVATION'

Mentor Automotive Lab

Mentor Automotive, a Mentor Graphics brand, is a technology leader in vehicle systems engineering and a creator of automotive solutions that span from in-car experience, to connectivity and networking, to subsystems and technology. Mentor's innovations include the software that is used to create the electronics in cars as well as the actual component base of the electronics for other car manufacturers to integrate. As a strategy for better showcasing their latest products, Mentor in fall 2016 opened a novel demonstration center in Novi, Michigan, very close to the epicenter of the nation's auto manufacturing industry.



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— John Cathey,
Diversified, Design/Build Sales

Created in collaboration with AV integrator Diversified and media systems designer Downstream, the new Mentor Automotive Lab is a custom-designed facility to test and demonstrate advanced solutions from the Mentor Automotive product portfolio.

Clients from around the world and leaders from the automotive sector are brought in to the Automotive Lab to view demonstrations of Mentor’s upcoming vehicle technologies and software. Mentor also uses the space to host events aligned to key megatrends in the automotive industry, with the goal to learn, share, and collaborate on a variety of leading topics that are helping drive automotive electronics innovation.

Supporting the strategic concept

The Automotive Lab is a collaborative, engaging space that is designed around what Mentor calls a ‘Road to Innovation’ concept. “The idea is to build a unique, immersive experience that begins as soon as participants walk through the doors,” said James Lake, global audio visual services manager with Mentor Graphics.

To enable this idea, Mentor employed display solutions from Planar, a Leyard company, throughout the space for use in varying roles. Beginning in the Automotive Lab’s entryway, which Mentor calls the “the Pit” and represents the threshold of the ‘Road to Innovation,’ two 46-inch Clarity® Matrix® LCD Video Wall Systems (2x1) and one 46-inch Planar® PS Series LCD display are utilized for introductory signage.

Featuring Full HD resolution, LED backlighting, and a 3.7mm tiled bezel width, Clarity Matrix provides outstanding tiled visual performance and an ultra-thin installation depth. The Planar PS Series—designed with LED backlight technology and an ultra-slim profile—is engineered for demanding digital signage applications and 24x7 operation.

“We show multiple forms of content through those first displays including custom information specific to each visitor,” Lake said. “This is our initial opportunity to introduce the Automotive Lab, connect with visitors, and begin to build the Mentor Automotive brand.”

From there, the ‘Road to Innovation’ leads into the actual demonstration room where Mentor can give presentations and visitors are allowed to engage with content on four 84” Planar UltraRes Touch 4K LCD displays. With 32 touch points, multiple users can collaborate and interact with the displays at the same time. The Planar UltraRes Touch displays are protected against damage by a bonded glass surface called Planar® ERO™ (Extended Ruggedness and Optics™) technology, which adds durability while minimizing the effects of glare, thus enhancing clarity.

Another highlight of the Automotive Lab includes a custom-built cockpit that includes a simulated car seat positioned in front of an 82” Planar PS Series LCD display. The cockpit system allows Mentor to demonstrate first-hand the benefits of its hardware systems and advanced electronic designs.

Displays help drive Automotive Lab design

Because the visual impact of the Planar displays plays such an integral role in reaching clients, it became a primary aspect for shaping the design of the Automotive Lab. “Much of the functionality of the space was planned around the multi-touch 4K Planar UltraRes Touch displays, which act as the primary focal point for both demonstrator and client,” said Diversified Design Engineer Darin Meadows. “We started with what clients would see and then based everything else off that.”

Creating an atmosphere that would leave a lasting impression with clients required leveraging the latest display technology. “The car simulation is so highly visible, and to express what a driver would experience in a car requires the best resolution and a powerful, graphic-intensive experience,” said John Cathey, commercial AV systems design/



build sales with Diversified. “That’s a big reason why Planar was chosen—for the ability to emulate that level of visual activity. But also, the decision was based on the need for something that was consistent and dependable. Based on Planar’s reputation, it was an easy decision to have their displays as the visual centerpiece in the Automotive Lab.”

Remote power supplies enable for seamless integration

For the Clarity Matrix video wall located in the entryway, Diversified was able to off-board the processor and power displays to an intermediate distribution frame located in a room 100 feet away, eliminating the requirement to store dedicated equipment behind the displays and providing for a more seamless integration. “This also allowed the design team from Downstream to incorporate a tight wrap on those displays without the need for ventilation,” Meadows said.

Flexible systems can be quickly tailored to client needs

One of the main advantages that the 4K multi-touch Planar UltraRes Touch displays provide Mentor is the flexibility to quickly access and demonstrate high-quality content on the fly.

“We love the interactive displays for the 4K imagery, but one of the ways the technology has been particularly effective is the extensive amount of quality content that is readily available at our fingertips,” said James Price, automotive & aerospace marketing with Mentor Graphics. “In the middle of a discussion, we can instantly get to the right content and assets that are relevant to what we need. If a client expresses interest in the electrical system of an autonomous car, straight away we can get into a presentation or a customer endorsement video on that very topic. It’s very flexible in that way.”

Depending on the client and their interest, the touch screen interface also allows Mentor to quickly jump between mediums such as a PowerPoint, video, wireframe schematic or a webpage. “And because the displays are so large, we can have multiple windows open and different presentations occurring at the same time,” Price said. “Overall, the displays have been very effective for our specific purposes.”

Going mobile and global

In addition to the flagship site in Novi, Mentor also employs 58-inch Planar PS Series displays as part of a mobile demonstration unit that is used with trade shows and onsite customer events. And based on the impact that the Novi demonstration center had made, Mentor now sees the Automotive Lab as an inspiration for global expansion. “We’ve started rolling this out around the world,” says Price. “We now have a small demonstration unit over in the UK and a purpose-built facility in Nagoya, Japan. We also have plans for further expansion into Germany and China.”

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*- James Price,
Mentor Graphics
Automotive & Aerospace Marketing*