

MediaMation Utilizes Digitization and Pneumatics to Alter Theater Experience

Matthew Jaster, Senior Editor

“For your safety, please keep your hands, arms and legs inside the vehicle at all times.”

We’ve heard this statement countless times at amusement parks, but we may start hearing it at the local multiplex (which sounds rather difficult when you’re gripping a large bucket of popcorn and a gallon of soda).

Imagine a car chase in your typical big-budget summer spectacular, but instead of watching the action unfold, the audience is participating in it.

On a hairpin turn, the cinema seats tilt to the left — only to swing back to the right when the car is travelling straight ahead again. The audience can feel the unevenness of the road surface, smell the fragrant undertones of burning rubber and take in exhaust fumes. Water splashes into their faces as the car drives through a puddle. At the same time, they can feel a draft of air blowing through their hair.

This is the concept behind MediaMation’s MX4D Motion EFX seats. With these premium theater seats, the audience essentially goes along for the ride. Festo, a supplier of pneumatic and electrical automation technology, assists in the process.

Jeremy Shubert, sales engineer at Festo, says the company has enabled the MX4D cinemas to run reliably for years for various entertainment enterprises. “The addition of the Festo Motion Terminal reduces the total air consumption as well as provides diagnostics and reduces control complexity,” Shubert said.

The Festo Motion Terminal VTEM controls all kinds of motion and triggers all the effects. This versatile pneumatic control system integrates digital functions into a single valve. Preprogrammed function modules and motion apps eliminate the need for costly system structures. The motion apps “Proportional directional control valve” and “Proportional pressure regulation” control the flow rates and pressures to ensure fast and powerful yet gentle and precise motion sequences.

So the car chase unfolds in a much more realistic (and terrifying) way on the screen in front of you.

“Controlling dynamic vertical loads with pneumatics is a challenging task that the Motion Terminal makes easier,” Shubert said. “Components such as the SDAP position transmitter that mounts directly into the actuator slot provides robust feedback of the actuator position.”

This is all possible with the latest advancements in digitalization and piezo technology. Each individual film sequence gets its own preset controls and operation, giving the audience a fast and intuitive viewing experience.



The motion profiles for the films are processed in a controller CPX-CEC directly on the Festo Motion Terminal. Many hardware components previously required are now superfluous. With the VTEM, three valves control the three actuators of each cinema seat, while one valve is responsible for pressure regulation.

“The Festo Motion Terminal makes everything much easier for us. Installation, commissioning, diagnostics and fault-finding can now be realized with far fewer components,” said Dan Jamele, CEO of MediaMation.

And it’s also getting some “theater to arena” activity in the gaming industry.

MediaMation has partnered with Hammer Esports and TCL Hollywood Chinese Theatre to enhance the gaming theater concept. The modular system allows theaters to transform seamlessly into esports arenas, with tournaments organized and hosted by Hollywood Esports.

Featuring the MX4D motion EFX seats, participants can immerse themselves in the full schedule of game play and competitions. A GameMaster/DJ will synchronize the seating with the game play, so that spectators get to experience the motion and intensity of the game itself. This concept was recently featured at the Electronics Entertainment Expo (E3) in Los Angeles.

Festo is proud to be involved in technology that is altering the entertainment industry.

“The Motion Terminal essentially enables a company like MediaMation to continue to push theater design into the future,” Shubert added.

And potentially make your Sunday afternoon matinee five times as thrilling.

For more information, visit www.mediamation.com or www.festo.com. **PTE**