CASE STUDY
THE GEORGIA AQUARIUM
VIDEO WALL
SOLUTIONS
LG Video Walls Engage Visitors and Streamline the Six Galleries’ Visitor Flow.

**GOAL**
Create a digital exhibit to replicate marine life at the entrance of the Georgia Aquarium in Atlanta – to deliver a visual and interactive experience for visitors.

**SOLUTION**
LG’s amazing display of innovation came to life with its Commercial-grade Full HD Video Wall, featuring a narrow bezel-to-bezel width and flexible configurations, allowing for multiple displays to be daisy chained at once.

**RESULTS**
The Georgia Aquarium created a lifelike digital exhibit with LG video wall displays that were creatively placed within an actual aquarium tank, providing visitors with engaging and effective entertainment platforms that offer exceptional picture quality and an immersive experience.

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Ryan Palley
Senior Manager of Audio/Visual at Georgia Aquarium
THE CHALLENGE
The Georgia Aquarium is the second largest of its kind in the world, housing thousands of fish, mammals and amphibians on display within six galleries. During an intensive restoration project in which one of its galleries would be completely reconstructed, the Atlanta-based aquarium wanted to continue to engage visitors in the gallery and keep visitor flow as streamlined as possible. The aquarium executives turned to LG Electronics for a digital signage solution to recreate a live exhibit with video wall displays capable of delivering superb picture quality during construction.

The Aquarium installed 36 LG 55-inch Full HD Video Wall Displays (Model 55LV77A-7B) inside of an emptied acrylic aquarium, which formerly housed “The Wall of Fish” exhibit. With the LG products’ stunning lifelike picture quality and immersive experience, the video walls provided the aquarium’s more than 2 million yearly visitors with an entertaining visual experience on par with a live exhibit.

“During construction of our new Sea Lion exhibit, we had to remove life support systems (LSS) that supported the Wall of Fish exhibit, leaving nothing but an empty acrylic box,” said Ryan Palley, Senior Manager of Audio/Visual at Georgia Aquarium. “LG’s video walls provided the best solution with lifelike picture quality capable of duplicating the feel of a live exhibit, to maintain the underwater experience while entertaining and informing.”

AN AMAZING DISPLAY OF DESIGN
The installation process faced several unique challenges, namely the space allotted for the video walls. The in-house audio/visual team installed the 36 LG displays, in two 6x3 matrices, inside of a former fish tank that measures 16 feet deep and is separated by a partition in the center. The tank only allowed five feet of working room to install mounting structure, brackets, power, data and displays.

With this limited space, the team was challenged to identify creative ways to install product without causing any damage to the tank and its waterproof design. The team implemented a floating support system that uses carpet pads to protect the product and the acrylic wall on which they are installed. The LG displays were carefully lifted and lowered into the tank given the narrow confinement, and then mounted with Crimson video wall mounts. The sleek design of
The LG displays worked to the team’s advantage – the super slim 3.5mm bezel-to-bezel depth allowed the displays to be seamlessly integrated into the aquarium’s environment. Another key benefit of each unit is their light weight – weighing only 50 lbs for easy installation in any setting.

**SUPERIOR PICTURE QUALITY FOR AN IMMERSIVE EXPERIENCE**
To achieve the level of picture quality and operational reliability desired, the aquarium chose the LG 55LV77A-7B to display Full HD 1080p content on each display in crisp, clear pictures. LG’s IPS panel technology ensures excellent color saturation and contrast, resulting in a display with superior picture quality that can be installed at virtually any angle or height, while still maintaining the integrity of the image.

Given the dimensions of the tank, the in-house team needed to create a 32:9 aspect ratio to showcase content in 2K resolution. The content transitions between the vivid colors and fluid movement of living corals, swimming sharks and macro invertebrates. Additionally, the LG video walls are used to communicate marine conservation messaging to help educate and inform visitors.

**BIG SAVINGS AND HIGH PERFORMANCE**
Designed for continuous operation in a public setting, the video walls’ LED screens display IPS technology and provide a temperature tolerance of up to 230° Fahrenheit (110° Celsius). This helps alleviate a common overheating problem that affects picture quality with some other digital signage screens. The Georgia Aquarium opted to control the LG video walls using a RS-232 system to operate a total of 11 hours a day. The RS-232 system automatically powers on the video walls 30 minutes prior to the aquarium opening, and powers off 30 minutes after it closes.

“We’ve benefited greatly by reducing our electrical consumption with the LG ENERGY STAR® certified displays,” said Palley. “We also chose to display the video walls in low lighting, cutting approximately 200 amps of energy for lighting alone – not to mention eliminating the energy typically needed to support aquatic life in the tank where the screens are installed.”

**AN ENHANCED EXPERIENCE**
The video walls became an integral solution of the signature experience the aquarium offers, which is grounded on entertaining, engaging and educating. The video walls have also been well received among staff, as they require very little maintenance, a testament to LG’s amazing display of reliability.

“The LG video walls are the first visuals that our visitors see when they walk into the Georgia Aquarium. It was imperative to choose the right signage and above all, the right partner, that could work with us to display our content and maintain a high quality experience for visitors,” said Palley. “We’ve been very impressed with this installation and want to continue to push the envelope with more exhibit enhancements such as this.”

**Innovation for a Better Life.**