Discovery Museum & Planetarium Projects the Past and the Future

ACADEMIC NEEDS
Science and space museum wanted to share high-definition video content with large groups of users in exhibit galleries and auditoriums.

EXPERT SOLUTION
Optoma’s TH1020 and TH1060 deliver 1080p resolutions for beautiful and detailed video images to educate and inspire students and museum visitors.

RESULTS
The Discovery Museum & Planetarium has found creative ways to share content, including space shuttle footage and a real-time video conference, to bring history and science alive. “...the projector creates interaction and invites conversation.” said Adam Zuckerman, director of exhibits and public programs at the museum.

Optoma Projectors Let Museum Share Shuttle Liftoff, First in Flight Conference and More with Museum Visitors

Each year, more than 55,000 children see, hear and touch science, technology and ideas at the Discovery Museum & Planetarium in Bridgeport, CT. In fact, the museum offers sixty-five exhibits that encourage exploration with the senses. Recently, however, the museum decided to boost the visual impact of its programs and activities with state-of-the-art projection technology.

“Projectors are fantastic for educational science museums because they allow us to share the huge amount of video and visual imagery about science that exists with large groups of people all at once,” said Adam Zuckerman, director of exhibits and public programs at the museum.

The Discovery Museum, which functions as both a tourist attraction that features science and space science exhibits, as well as an informal science education center, needed two projectors. Optoma’s sales experts made a site visit and identified units that provided the right combination of high resolution, brightness and robust operation to meet the stringent demands of a busy facility. “There are so many projectors on the market, it is daunting,” said Zuckerman. “After talking to Optoma’s salesperson, I was sure we were getting the features we needed.”

Built to Educate
The Discovery Museum needed considerable projection power for both its exhibit gallery and auditorium. The museum’s 20,000 square foot facility includes changing and permanent interactive exhibit galleries, as well as a planetarium, an auditorium, classrooms and more.

As the museum grew and changed, it found that its old projectors couldn’t keep up with the demand for projection power. It wanted to put new bright, high-resolution projectors into its auditorium and exhibit gallery. “Before this, we had a projector in one of the gallery spaces that was barely capable of standard television definitions, so we were incredibly limited in that space,” said Zuckerman. “For the auditorium, we had been borrowing a projector from one of the classrooms when we needed it.”
Projecting Light and Sound

For its Light and Sound exhibit gallery, the museum chose the Optoma TH1020, a native 1080p DLP projector that delivers 3000 ANSI lumens and 2200:1 contrast ratio. In this gallery, visitors encounter a variety of interactive exhibits. With the projector, the museum can now share educational content on an eight-foot wide by six-foot high screen. These videos help visitors understand the differences between light beams and sound waves, as well as size scales ranging from the vastness of outer space to the smallest molecules.

“In the unsupervised exhibit gallery, the projector creates interaction and invites conversation,” said Zuckerman. “Clusters of people who walk up to the screen at the same time, whether it’s a family group or complete strangers, end up helping each other interact with the information for a more in-depth learning experience.”

Durability and reliability were key requirements for the projector, since the 6.4-pound projector, which is mounted on the ceiling, runs constantly from opening to closing, in the gallery. In addition, the projector’s auto standby mode was an important feature to further preserve lamp life and reduce cost of operation.

Creating Shared Experience

In the auditorium, the Optoma TH1060, a native 1080p high-definition DLP projector, now provides widescreen images on a 16-foot wide screen for life science demonstrations, movies and other content to audiences of summer camp participants and school groups. The projector’s 4500 ANSI lumens and 2500:1 contrast ratio ensure high-quality viewing, while flexible connectivity

commemorated the 110th anniversary of Gustave Whitehead’s successful flight in an airplane he built (two years before the famous Wright brothers’ flight). On August 14, 1901, Whitehead accomplished a successful powered flight, flying a distance of approximately 800 meters with his home-made, engine-powered monoplane “No. 21”. As part of the festivities, the museum projected a teleconference between the mayor of Bridgeport, CT, and the mayor of Leutershausen, Germany (where Whitehead was born).

“The projector allows us to share the meeting of the mayors with an auditorium of people, including a group of dignitaries that included our U.S. senator and several state legislators,” said Zuckerman. “We even got to have a virtual tour of the museum in Germany that is dedicated to Gustave Whitehead. His grandson and great granddaughter were even here to see it. ”

Today and Beyond Experience

These first forays into creative projection of content are just the beginning. The museum intends to continue to inspire and educate by creatively sharing content in both its auditorium and gallery with its Optoma 1080p projectors.

“As a science museum, we really want people to come here and feel like they’ve experienced something that they couldn’t experience at home or somewhere else,” said Zuckerman. “Having the latest and greatest projection technology is important because it lets us achieve that.”

“Projectors are fantastic for educational science museums because they allow us to share the huge amount of video and visual imagery about science that exists with large groups of people all at once.”

-Adam Zuckerman, director of exhibits and public programs, Discovery Museum & Planetarium