

## 2018 COMMUNICATIONS AWARDS PROGRAM

*Project Name:* STEM Funshop at the Port of Los Angeles  
Port of Los Angeles

*Short, Descriptive Summary of the Event:* On Saturday, March 10, 2018, the Port of Los Angeles hosted its annual *STEM Funshop* at Banning's Landing in Wilmington. The free community event offered students of all ages an opportunity to explore future careers in Science, Technology, Engineering and Mathematics fields relevant in the Port of Los Angeles environment, marine science, and maritime industry.

Among the many activities that were available throughout the day, attendees had a chance to build bridges, tinfoil boats and paper towers with Port engineers; explore the latest technology on the Port Police dive boat and hazmat truck; examine air quality with Port Environmental Scientists; and learn how Port Pilots work with ships. In addition, various exhibitors from the Greater LA County – Aquarium of the Pacific, Dana Middle School, LA Maritime Institute, Mammal Care Center, Metro, Natural History Museum, PAGO Toys, and Port of LA High School – donated their time and energy to engage the community through various STEM-based exhibits.

Despite steady rainfall, an estimated 700 visitors attended this year's STEM Funshop event.



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## 1. Communications Challenge/Opportunity

In recent years, there has been a strong push to promote STEM (Science, Technology, Engineering, Mathematics) education and with good reason. While “[the number of STEM jobs will grow 13 percent](#)” between now and 2027, the same study found “the national STEM pipeline loses young people at every level of the education system,” with [only 26 percent](#) of college graduates receiving certificates and degrees in STEM fields.

To better prepare local students for possible careers in STEM, educational agencies like the Los Angeles Unified School District (LAUSD) created magnet programs and charter schools whose primary focus is on STEM. Government entities like the Port of Los Angeles (POLA) also sought to broaden students’ view of future career possibilities in STEM through teaching them about ports, the maritime environment, and the industries that facilitate goods movement and global trade.

Our workforce consists of engineers, environmental scientists, port police officers, port pilots, financial analysts, and other staff members whose day-to-day responsibilities require STEM skill sets. Over the past few years, we received and facilitated more requests for Port speakers in these fields. While POLA engineers began visiting classrooms each year to celebrate Engineering Week, we saw the program was limited in the number of students it reached. From experience, we felt a free community event would provide community members an opportunity to participate and receive information more readily, which led to the decision of hosting an annual free community event called *STEM Funshop at the Port of Los Angeles (STEM Funshop)*.

Our primary objective when we host the *STEM Funshop* is to generate interest in STEM jobs at the Port of Los Angeles and in the maritime and trade industries. A challenge we face is creating exhibits and stations that encourage the youth to see the importance of STEM jobs and the fun they can have in these fields. After a year off in 2017, we came back and not only enhanced previous activities by tapping into past participants we had the first two years, but introduced STEM experts in the local community who would help us develop new ideas for future events and participate in the event as a partner.

STEM continues to be a major facet of education and workforce development in the nation, state and city. Through the *STEM Funshop*, the Port of Los Angeles has been able to show the community – particularly harbor area youth – the fun in STEM-related maritime careers, while stimulating a future workforce at the same time.



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## 2. Nexus to the Port's Overall Mission

The *STEM Funshop* supports the overall mission of the Port of Los Angeles. The *Port of Los Angeles Strategic Plan Update 2014* (Strategic Plan) identifies “Strong Relationships with Stakeholders” as one of its four strategic plan objectives.

This year's iteration of the *STEM Funshop* directly supported school programs by giving local harbor area schools (Dana Middle School and Port of Los Angeles High School) a platform to highlight their respective robotics and environmental programs to fellow educators, parents, and students – essential stakeholders of the Port.

One initiative under the Port's “Strong Relationships with Stakeholders” objective is to “attract visitors to the LA Waterfront of Wilmington and San Pedro.” The Port achieved this by hosting the free community event at Banning's Landing in Wilmington (one of the “public access facilities and services in port areas adjacent to the Wilmington and San Pedro communities”). The event also gave us an opportunity to raise awareness of several community partners (LA Maritime Institute Topsail and Mammal Care Center) in the San Pedro area by exhibit their STEM programs. These initiatives helped the Port to foster strong, important relationships with various facets of the community.

## 3. Planning and Programming

The primary goal of the *STEM Funshop* is to educate community members – especially elementary, middle school, and high school students – about maritime and trade industry careers available at the Port of Los Angeles, in the science, technology, engineering, and mathematics fields.

We started the now-annual event after [President Obama mandated](#) “a clear priority for STEM education: within a decade, American students must ‘move from the middle to the top of the pack in science and math.’” Given how much STEM education our port engineers, environmental scientists, port police and port pilots apply at their respective jobs, we thought, “What better way for students to learn about STEM than from the people who directly work in these fields every day?”

In addition to creating Port-specific exhibits that were age-appropriate, engaging, and positive, we determined a free community event required the participation of local schools (Port of Los Angeles High School and Dana Middle School) and organizations that promoted youth programs (Aquarium of the Pacific, LA Maritime Institute Topsail, and Natural History Museum, among others). Their participations were an optimal way to highlight and promote local STEM programs and capture how STEM looks outside of the Port.

We decided that a great location for this event would be Banning's Landing Community Center on the LA Waterfront in Wilmington. The community center has a large open room where numerous exhibits could be set up and an outdoor space that could accommodate additional booths, a dock for a boat, and mobile educational exhibits.

For this year's *STEM Funshop*, we brought back several exhibits from past events that consistently resonates with new and old visitors alike. Those activities included: a build-a-bridge with *Dots* gumdrops and toothpicks; a pulley system; a tinfoil boat activity that examined how much weight a boat can hold; a paper tower activity; a port pilot simulator that allowed students to dock ships in the harbor using real pilot technology; an air quality monitoring equipment activity; and a tour of the port police dive boat.

*Objective:* Bring at least 400 participants to the LA Waterfront to learn about STEM at the Port of Los Angeles. Receive positive feedback on this event from students and community member attendees.

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*Target Audience:* Elementary school, middle school, and high school students in the harbor area.

*Secondary Audiences:* Parents, educators, and other community members.

### 4. Actions Taken & Outputs



*Strategies:* We decided to host the event on one Saturday in March, from early/late morning until early afternoon. Our experience showed us that this particular timeframe and date would allow for the most amount of participation from our community. We also knew getting schools to participate on a school day would be difficult due to different school calendars and requirements, which would hinder the amount of students that could come. Since our primary target for this event were local students, we wanted to make sure that the event was free, so all community members and youth organizations could attend if desired.

*Tactics:* When it came time to promote the event, we wanted to make sure people had a clear understanding of the event and ensure that we invited the right people.

Our graphics division created a descriptive flyer and banner that listed specific activities that would be at the event. Because many of our community members speak Spanish as a first or second language, we made sure to publish double-sided flyers that had the relevant information in English and Spanish. As a way to jump on the current trend of social media cutouts at events, the team created Instagram and Snapchat cutout frames that were used as photo opportunities throughout the event.

As it got closer to the event, we recruited volunteers to assist our staff at the event. We invited high school students from our *VolunTEENS* program (volunteer program for harbor area high school students) to assist our staff at the event. Twelve *VolunTEENS* volunteered their time and received community service hours. We also received volunteers from the Girl Scouts of Greater Los Angeles, who expressed interest in exhibiting at a future *STEM Funshop*.

To engage and promote to younger crowds, we started posting the flyer on the Port's social media pages (Facebook, Twitter, and Instagram) a month before the event. We also implemented several social media-specific activities, such as a Facebook events page and Boomerang videos on Instagram, prior to the event.

The Wilmington Chamber of Commerce listed the event on their website as well.

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*Implementation Plan:* Staff began working on the event at the beginning of January 2018. One community relations staff member coordinated the cooperation of a cross-division team of six staff members that regularly contributed to the event. Approximately 25 staff members from various divisions worked for five hours at the event; staff members were from communications, graphics, engineers, port police officers, port pilots, port environmental scientists, and construction and maintenance.

In December 2017, our graphics division completed a descriptive flyer and promotional banners that listed specific activities that would be at the event. We mailed out the banners to elementary, middle, and high schools starting in January 2018 and also had them available to pick up at local after-school programs like the Boys and Girls Club. The construction and maintenance team hung the promotional banners at five specific locations in and around the LA Waterfront; these locations were areas most frequented by community members.

Starting in January 2018, we began reaching out to our primary audience by mailing out flyers to various schools in San Pedro and Wilmington and local youth programs. For our general audience, we built anticipation for the event through our social media pages – namely, Facebook, Twitter, and Instagram. We also invited some schools with STEM-related programs and classes to not only attend the event, but to participate in the event by hosting a booth and showcasing their work and programs.

We were able to get almost everything for this event done in-house, including event activities, assets printing, video production, audio visual, and most event set-up and breakdown. Purchases for the event included activity materials like *Dots* gumdrops, toothpicks and foil; banners; and an ad placement. Overall event costs were approximately \$3000. Some staff overtime was also incurred for this weekend event.

### 5. Outcome and Evaluation

With steady rainfall expected for the day, our objective for this event was to bring at least 400 participants to the LA Waterfront to learn about STEM at the Port of Los Angeles. In the end, we estimated more than 700 people attended this event, which was nearly double our target number. In addition to the local community's support, we had a GATE Program from Lynwood Gardens successfully charter a school bus for the day and brought their students for the day.

Another event objective was to receive positive feedback on this event from students, parents, educators, and other community attendees. Throughout the event, staff members consistently received positive feedback from various attendees about the event. One student summed up his experience at the event: "I think it's really cool once you look inside the technologies [and see] all the wires [and] circuits... so you can actually make a robot out of scratch. It was amazing." The AV team created a post-event recap that would capture audience feedback and double as a future promotional piece: <https://www.youtube.com/watch?v=0y4K2SCTOOI>.

The Port of Los Angeles provides resources and experiences that broaden students' view of the Southern California region, international trade and their future career possibilities. We look forward to continuing and expanding this annual event in the years to come.

