UC San Diego UC San Diego News Center

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UC San Diego Qualcomm Institute Gears Up for Maker Faire San Diego



Is it still considered "a walk in the park" when drones, robots and 3D glasses are involved?

Researchers at the University of California, San Diego Qualcomm Institute will find out next weekend as they take over San Diego's Balboa Park for <u>Maker Faire San Diego</u>, a celebration of the global, tech-influenced doit-yourself community known as the Maker Movement.

Part high-tech science fair, part county fair,

and part something entirely new, Maker Faire – which takes place Oct. 3 and 4 – is an all-ages gathering of tech enthusiasts, crafters, educators, tinkerers, hobbyists, engineers, science clubs, authors, artists, students, and so much more. The Balboa Park Cultural Partnership, San Diego Makers Guild and Tijuana Innovadora have partnered with the City of San Diego to put on this first-ever event showcasing innovators and creators from our binational region. More than 20,000 people are expected to attend Maker Faire San Diego (MFSD) over two days.

"Maker Faire is a community-wide incarnation of what we do here at UC San Diego every day," says QI Director Ramesh Rao. "Our researchers seek creative solutions to the problems they may confront and then tinker with outcomes until they've developed something truly innovative. This is the essence of Maker culture, and it's also the essence of the modern research university."

QI researchers will represent their institute at four different "Maker Zones" throughout the Faire: The "Family" Zone (at the San Diego Natural History Museum), the "Robotics" Zone (at the San Diego History Center), the "Imaging" Zone (at the Museum of Photographic Arts) and the "Drones" Zone (at the San Diego Air & Space Museum). At the Family Zone, visitors of all ages can pretend they're archaeologists excavating a mock dig site, and then see some of the artifacts visualized on one of QI's high-tech OptlPortable display walls and on a 3D printer. Visitors are also encouraged to see the <u>Maya: Hidden Worlds</u> <u>Revealed</u> exhibit inside the Natural History Museum – QI Special Projects Coordinator Dominique Rissolo, who is an expert on Maya archaeology, was a consultant on the exhibit.

Says Rissolo: "UC San Diego is a leader in student-centered innovation, and 'maker' is part of our DNA. We are excited to be more active in Balboa Park this centennial year and to bring a bit of campus to the Faire."

At the Robotics Zone, Faire-goers will have a chance to help build a <u>MIP Balancing Robot</u> and also see a few MIPs roaming around the Prado. Students from the UC San Diego <u>Engineers for</u> <u>Exploration</u> program will also demo an automated "camera-trap" (for catching images of unsuspecting wildlife) as well as high-tech birds' nest finders and LiDAR scanning. Researchers will also showcase innovative tools that allow people to build their own robotic gadgets.

At the Imaging Zone, visitors can "fly" through 3D images of some of Balboa Park's most iconic buildings and play QI affiliated artist Sheldon Brown's interactive multi-person game – called <u>Assembly</u> with their smartphones. Also on display will be autonomous aircraft used for visualizing archaeological sites and other important regions from the air.

At the Drone Zone, QI researchers will display several drones conceived of and built in the QI labs (including a Paradrone). These drones have been used in scientific missions around the world, and footage of these deployments will showcase how drones can aid in exploration and conservation. Outreach efforts in the area of near-space ballooning will also be featured.

Visitors to the park's Japanese Friendship Gardens can make use of another QI-developed technology, all from the comfort of their own smartphones. The <u>Haiku Hunt</u> app – available for Android phones at the <u>Google Play</u> store – provides a 21st-century scavenger hunt for those visiting the nearly 100-year old gardens.

"The Maker Faire is a unique opportunity for our students to share with the community their passion for engineering and creating new technologies," says QI Principal Design Engineer Curt Schurgers, a co-director of Engineers for Exploration and one of the researchers exhibiting at the Faire. "They have dedicated countless hours to building technologies that can help researchers, such as our collaborators at the San Diego Zoo, and this is what interdisciplinary studies is truly all about."

Maker Faire San Diego is open to the public on both days from 10 a.m. to 6 p.m. Tickets are \$10 for children/\$15 for adults (prices are subject to change). For more information, visit <u>sdmakerfaire.org</u>.

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