

# The Greatest Show & Tell on Earth

## It's Perfectly Acceptable to Bring Work Home with You for Maker Faire

Matthew Jaster, Senior Editor

If you consider yourself a manufacturer, engineer, gearhead, inventor or simply a techophile, then you should consider a trip to Maker Faire this year. Maker Faire is a family-friendly showcase of invention, creativity, and resourcefulness. The event is described by its creators as “part science fair, part county fair and part something entirely new.”

Bottom line, it's an eye-popping, cerebral celebration of the Maker Movement — individuals who create and market DIY products that are recreated and assembled using unique supplies and materials typically developed in garages or basements with limited manufacturing resources. It can be argued that the gadgets, robots, drones, simple machines and wearable devices created at Maker Faire events are somewhat responsible for bringing engineering mainstream.

### The Statistics Don't Lie

Maker Faire celebrated 221 Faires in 2017 and engaged more than 1.58 million attendees globally in 45 countries around the world. The 12th annual Maker Faire Bay Area welcomed some 1,200 Makers and 125,000 attendees. World Maker Faire New York, the East Coast flagship event, has grown in eight years to 750+ Makers and 90,000 attendees.

“Eight years in with our partner, the New York Hall of Science, bringing World Maker Faire to the East Coast, and the enthusiasm and engagement from the maker community is still strong,” said Dale Dougherty, co-founder of Maker Faire and CEO of Maker Media. “It's a testament to the maker culture and people wanting to connect around something that satisfies their deeper curiosity for exploring and problem-solving, and putting their talents and ingenuity to work. They know they will find these connections and opportunities at Maker Faire.”



All photos courtesy of Maker Faire.

### Unique Tech Trends

So what types of projects have been displayed at Maker Faire events?

Users can create their own robots and motion control using Arduino, an open-source electronics platform based on easy-to-use hardware and software. Arduino boards are able to read inputs - light on a sensor, a finger on a button, or a Twitter message - and turn it into an output - activating a motor, turning on an LED, publishing something online. You can tell your board what to do by sending a set of instructions to the microcontroller on the board. ([www.arduino.cc/en/Guide/Introduction](http://www.arduino.cc/en/Guide/Introduction))

Kinetic Steam Works, a Bay Area collective dedicated to steam powered kinetic art and education, came together in 2005 to explore, restore and share the artifacts of clockwork modernity. KSW is a small group of industrial artists building with steam that created a project where large wooden gears were used to drive a 110-year-old automatic pencil sharpener. ([www.youtube.com/watch?v=CS6v8sQ34sQ&feature=youtu.be](http://www.youtube.com/watch?v=CS6v8sQ34sQ&feature=youtu.be))

Fablab O Shanghai presented its “Dishu Machine” a robot capable of making large paintings of Chinese poetry using water on the ground. The machine is a composition of 3D printed and laser cut materials and employs a combination of stepper motors, a water pump, Arduino Uno x CNC Shield and a custom G-code transcoder. (<http://archive.fabacademy.org/archives/2017/fablabshanghai/students/190/week9a.html>)

### The Future of Engineering & Manufacturing

While these unique and clever projects might entice our readers to sit in the garage for the next three weeks and invent something, the truth is that 50 percent of Maker Faire attendees bring their children. This is the key takeaway from an event like Maker Faire. We need the next generation of engineers, manufacturers and scientists to get their hands dirty and create the technologies of the future. This passion for STEM activities can start right here.

To find the next Maker Faire event near you, visit <https://makerfaire.com/map/>. 

