

MAKE SHOP ARTIFACTS: MAKING YOUR FUTURE

More than a dozen artifacts displayed inside the Make Shop during Spring Make Festival allow guests to see first-hand the endless possibilities of curiosity and creativity. Guests are able to follow the intricate patterns of a laser-cut leather dress created by fashion designer Alexander McQueen, and discover the real-world uses of 3D printing with a cup that allows people with Parkinson's disease to take a drink without spilling. Plus, see the Museum take shape piece-by-piece as sections of the historic building are 3D printed daily and connected to create a 6-foot-long model. All of these artifacts showcase the power of making and proves there is a maker in all of us.

Kangaroo Cup

Chicagoan Lily Born hated seeing her grandfather, who suffers from Parkinson's disease, unable to hold a cup without spilling. She was only 7 years old when she challenged herself to create a non-spill cup, called the Kangaroo Cup. Now a teenager, Lily and her company, Imagiroo, have sold tens of thousands of cups worldwide and donated many more to organizations that help adults and children with mobility issues. 3D printing allowed Lily and her team to quickly prototype design changes, resulting in the plastic version that is produced by her company today.

Chicago Flag

This mosaic of the Chicago flag contains 126 squares, each one individually created by LTMaker Lab students from Lane Tech High School. Restricted to an only 4-inch square, color scheme and one main building tool, students had no limits on how they could use that space to design something that represented their civic pride and tied back to their community.

3D-printed Museum of Science and Industry Model

Three 3D printers are hard at work printing the very building it sits in. Each day, a new piece of MSI is 3D printed and added to the growing model. The model was designed using software based on actual measurements of the building and then turned into a printable 3D file. By the end of the Spring Make Festival, a full 3D-printed model of MSI will be complete.

Black Lattice Laser-cut Dress

Alexander McQueen's name was synonymous with the sublime integration of technology in his fashion designs as well as his technology-infused, theatrical fashion shows. This simple McQ dress designed in 2012 is perforated using a laser-cut lattice pattern that gives the already supple leather a feeling of movement and grace.

3D-printed Human Lung

From manufacturing to medicine, 3D printing has impacted a wide range of industries. Models created from real medical data, like a 3D-printed human lung, could help doctors visualize and diagnose disease, leading to more targeted, patient-specific care.

CuteCircuit Galaxy Dress

The Galaxy Dress contains 24,000 LED lights embroidered throughout the gown. A camera

discretely tucked into the gown's bodice captures your image and illuminates it across the skirt. The hardware and software integrated in the dress create a personalized garment for every wearer.

Gold Laser-etched Bracelet and Necklace

As a child, Anina Net was equally fascinated by playing dress up and playing with code. She founded 360Fashion Network where she and her team blend technology and fashion using high- and low-tech tools. After sketching her ideas and making paper prototypes of her designs, she coated the flexible material in gold and laser etched the pattern onto it. The resulting cuff bracelet and choker necklace light up with the help of batteries hidden in the clasp.

“Redscape Two”

“Redscape Two” is a stunning, vibrant red Tyvek paper sculpture created by Chicago artist Richard Shipp. He hand cuts each paper artwork, often using a single type of cut, teasing out complex shapes and volumes from a simple piece of paper.

3D-printed Foot

Models like the 3D-printed foot are helping doctors at Lurie Children's Hospital train to create customized foot braces before they ever see the patient. Using a CT scan of the patient's foot, an exact replica of the bones and joints structure is 3D printed with two different materials at the same time. The structure is then cast in silicone, to mimic the soft tissue of a real patient's foot.

Hand-whittled Wooden Chain and 3D-printed Chain

Since its invention in the 1980s, 3D printing has opened the door to a world of opportunities, making it possible to create things that would be extremely difficult or impossible. The wooden chain on display in the Make Shop was whittled by hand from a single piece of wood for a 1932 “Popular Mechanics Magazine” contest. In contrast, the 3D-printed replica, also on display, was designed on a computer and printed in just 41 hours.

RadioShack 1977 Build-Your-Own Computer Kit

In the 1970s, home computers were just starting to emerge but, due to low demand, fully assembled computers were not widely available. DIY kits, like the RadioShack kit from 1977, included all the needed parts, but the popularity of the kits declined when more fully assembled computers came to market in the 1980s.

Gravity Indicator

You might think you couldn't 3D-print something in space unless you were an astronaut. But Dylan Taylor, a real estate executive, designed the first privately-commissioned piece printed on the International Space Station. The ability to use 3D printers in space for tools like the gravity indicator, which gives astronauts a visual clue when they've left a gravitational environment, will make it easier for humans to live, work and explore space.