August 25, 2015

stratasys®

MakerBot Thingiverse Announces Winners of Thingiversity Summer STEAM Challenges

Five Winning Designs Help Teachers Integrate 3D Printing in the Classroom; Winners, Schools Receive MakerBot Replicator Desktop 3D Printer

BROOKLYN, N.Y.--(BUSINESS WIRE)-- MakerBot Thingiverse, the world's largest 3D printing design community, is pleased to announce the winners of the education-focused Thingiversity Summer STEAM Challenges. Over the course of two months, nearly 900 members of the Thingiverse community submitted designs across the five challenge categories of Science, Technology, Engineering, Art, and Math (STEAM). After much deliberation, the first-place winners in each category were each awarded a MakerBot Replicator Desktop 3D Printer. All of the winning designs are available free on Thingiverse.

This Smart News Release features multimedia. View the full release here:
http://www.businesswire.com/news/home/20150825005690/en/

The winning design of the See the World challenge is a fully functional model of the Vienna Giant Wheel. (Photo: Business Wire)

"We are blown away by the creative designs the Thingiverse community submitted for the Thingiversity Summer STEAM Challenges, ranging from solar-powered LED lamps to a gravity battery to a 3D printed version of the Vienna Giant Wheel," said Eric Mortensen, Thingiverse community manager, who oversaw the judging process. "Thingiverse is a place where educators, designers, and engineers come together to exchange ideas, and the winning designs are a testament to the creative power and innovative potential of this community."

The Thingiversity Summer STEAM Challenges are part of MakerBot's broader education

[initiative](#), which aims to provide teachers, professors, librarians, and students with access to the resources and tools they need to embrace 3D printing. MakerBot Replicator 3D Printers are in more than 5,000 schools throughout the United States, and 79% of teachers who use MakerBot Replicators also use Thingiverse in the classroom[1]. Teachers can use the winning designs of the Thingiversity Summer STEAM Challenges in their classrooms as inspiring examples for students, or they can invite students to revisit and reimagine the designs. According to Laura Taalman, senior product manager at MakerBot, the larger goal of the STEAM Challenges was to generate "3D-printable designs that inspire people of all ages to think about STEAM topics both in and out of the classroom, and to add to the library of models on Thingiverse that can serve as resources to teachers and students in their future STEAM projects."

Challenge 1 - Science: Make It Float

The goal of this challenge was to create a 3D model of a boat or other floating object to test the principles of buoyancy, displacement, and the scientific method. The object was required to be able to float in water while holding the largest amount of coins. The winning entry was [GO-GO AirBoat](#) by [David Choi](#), an electronics designer in Brooklyn, NY. David's design consists of a 3D printed boat that is rigged with a payload sensor and motor. Choi hopes the AirBoat will help teach the fundamentals of mathematics, physics, and electronics.

Challenge 2 - Technology: Light It Up

The submissions for the Light It Up challenge had to incorporate LED lights for wearing, using, or watching. Entrants were encouraged to incorporate switches and solar power in order to teach basic circuits, designing for assembly and LED components. The winning entry was [Solar Hive](#) by [Christoph Queck](#), a mechanical engineering student from Germany. The Solar Hive is an LED lamp that consists of random, 3D printed boxes in the shape of a honeycomb. The resulting design combines geometry and electronics to create a work of art that blends in with the environment.

Challenge 3 - Engineering: Catch the Wind

In this challenge, participants designed a 3D model that harnesses the power of the wind such as a pinwheel, a bubble-maker, or a kite, to teach the principles of energy transfer and movable assemblies. The winning entry was [Wind Energy Stored in Gravity](#) by [Mike Blakemore](#), the CEO of a software development company in Santa Barbara, CA. Mike developed a printable machine that transferred energy generated from a wind turbine into a "gravity battery." The design demonstrates the transfer of energy from one form to another and examines a new model for renewable energy storage.

Challenge 4 - Art: See the World

The See the World challenge asked participants to create a 3D model of an outdoor landmark from around the world in order to teach how to design from a reference. The winning entry was [Vienna Giant Wheel (Riesenrad)](#) by [Chris L.](#) from Vienna, Austria. Chris's design is a fully functional model of one of Vienna's most famous landmarks. His goal was to create a model that was both highly accurate and easily scalable. Keeping 3D printing in mind, Chris designed, printed, and painted 15 gondolas, two stands, and one wheel.

Challenge 5 - Math: Build a Castle

The goal of this challenge was to make your own 3D printed sand castle molds to showcase innovative use of geometry, mold design, and tessellations. The winning entry was [Math at the Beach](#) by [Will Webber](#), a collection of math-based things that can be used to enhance sand castle designs. The collection includes rollers to add texture to the sand, mathematical shape and bucket molds to create 3D shapes, polygon cookie cutters, and more.

Entries in the Thingiversity Summer STEAM Challenge were judged based on their design's creativity, printability, educational value, and relevance to the challenge topic. First-place winners received a MakerBot Replicator Desktop 3D Printer, and had their design featured on Thingiverse. The winning designs and all other entries are available on Thingiverse, where users can print, modify, and share the models for free.

In further support of its commitment to educators, MakerBot is also donating MakerBot Replicator Desktop 3D Printers to five schools. When the Challenges were first announced, schools were invited to explain why they should receive a 3D printer. From nearly 90 schools that applied, ten finalists were selected (full list available [here](#)).

From these ten finalists, five schools will be chosen to receive a 3D printer by the five winners of the Thingiversity Summer STEAM Challenges. With their own printer and the MakerBot 3D Ecosystem, the schools will be able to incorporate 3D printing into lesson plans and teach important skills. Thingiverse will offer additional STEAM Challenges in the fall.

MakerBot provides a range of resources for educators on the new [MakerBot Education Resource Center](#). [MakerBot in the Classroom](#), for example, is a free handbook that includes an introduction to 3D printing and a range of hands-on 3D design lesson plans.

About MakerBot

MakerBot, a subsidiary of [Stratasys](#) Ltd. (Nasdaq:SSYS), is leading the Next Industrial Revolution by setting the standards in reliable and affordable desktop 3D printing. Founded in 2009, MakerBot sells desktop 3D printers to innovative and industry-leading customers worldwide, including engineers, architects, designers, educators and consumers. MakerBot has one of the largest installed bases and market shares of the desktop 3D printing industry, with more than 80,000 MakerBot Desktop 3D Printers in the world. The robust MakerBot 3D Ecosystem makes 3D printing easy and accessible for everyone. To learn more about MakerBot, visit [makerbot.com](#).

[1] Online surveys and telephone interviews were conducted over four months with 1,300+ respondents using MakerBot Replicators in an educational institution.

View source version on businesswire.com:
http://www.businesswire.com/news/home/20150825005690/en/

MakerBot
Johan-Till Broer
+1-347-238-2409 (o)
+1-312-282-9368 (m)

johan.broer@makerbot.com
makerbot.com

Source: MakerBot