MAKEATHON

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WHAT IS MAKEATHON?

Makeathon is a design competition that takes place over the course of one weekend. This year, the event was held from January 29 - 31, 2016 and students were given the chance to participate in the classic Product Design Competition, or try out the newly added Case Competition and Fine Arts Showcase. Nearly 300 students from the University of Michigan and nearby colleges, gathered in the Stamps School of Art & Design for a weekend filled with innovation and creativity.

PRODUCT DESIGN COMPETITION

A staple of Makeathon, the original design competition enables participants to transform their ideas into functioning prototypes and a chance to bring their product to market. Students can build solutions in 3 categories – Environment & Energy, Health & Wellness, and “Around the House”.

CASE COMPETITION

Sponsored by National Instruments, the case competition challenged students to form multidisciplinary teams to build a robot capable of climbing up and down a set of stairs. Teams of mentors from NI were on-deck all weekend to guide students through the design process and teach/ troubleshoot technology.

FINE ARTS SHOWCASE

Also new to Makeathon this year, the Fine Arts Showcase sought to explore ‘making’ through a creative lens, allowing teams to display their artistic abilities through 2D and 3D art. Students created artistic pieces surrounding the chosen theme of ‘Power’.

FRIDAY PROTOTYPING

Participants arrived on Michigan's campus with pre-formed teams or created new teams of 4-5 students. After a short presentation on design thinking, teams used the rest of the night to brainstorm their problem statements, audiences, end users, and finally the product itself. Design mentors were on-deck to assist the students with ideation and rapid prototyping.

SATURDAY BUILDING

Students have full access to state-of-the-art wood shop, metal shop, laser cutters, CNC routers, 3D printers, power tools, and soldering equipment, in addition to a plethora of raw materials and tools. Engineering and product design mentors were always available to guide students with building and troubleshooting. Teams began building Saturday morning and a vast majority worked throughout the night!

SUNDAY PITCHING

The culmination of the weekend – final product expo. In a final showcase, teams presented their product to a team of judges, sponsors, other participants, and the general public. The winning teams for each category were each awarded $1000, in addition to a few sponsor prizes.

WINNERS

PRODUCT DESIGN COMPETITION

Reflected Sunlight Vertical Farming Environment & Energy
In order to have a carbon neutral, economically feasible vertical farming industry, the large energy costs caused by indoor grow lighting must be reduced. By supplementing LED grow lights with reflected sunlight, the team hoped to bring down energy bills and eliminate up to 30 percent of carbon emissions for vertical farmers.

Lighten the Mood Health & Wellness
Lighten the Mood is a smart room application that helps to maintain your circadian rhythm and melatonin levels by changing light colors (wavelengths) throughout the day. This product will help anyone in the world by regulating how much sleep they get and easing them in and out of one of the most important components of their life.

Smart Spice Rack Around the House
Perfect for the home cook, Smart Spice Rack can detect the spices required for the dish of any recipe on any website. The corresponding spices light up allowing the user to quickly find what they need for their dish.

CASE COMPETITION

Team Enigma
The team designed, fabricated, and coded for a compact robot that could descend a flight of stairs in a controlled manner. Its key features include human-controlled steering, wireless control through wifi, infrared height data collection, and real-time IO monitoring through the Internet.

Team Napstair
This team focused on designing and building a robot capable of climbing up stairs. Their key design feature was the use of two worm gears to direct enough power to our wheels in order to catch each step and lift the main body of the robot.

FINE ARTS SHOWCASE

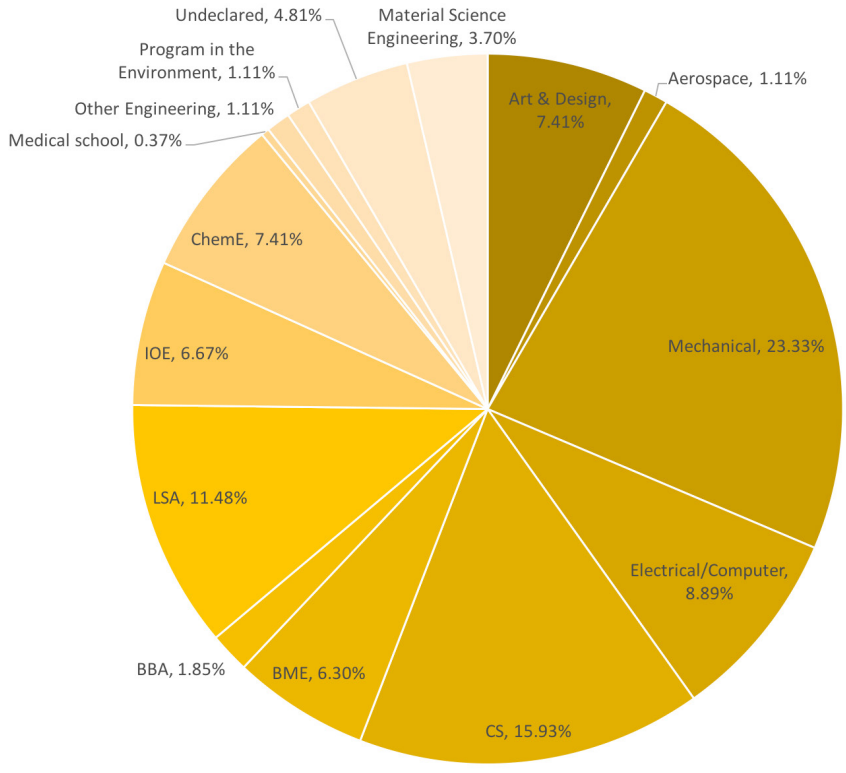
Virtual Reality Landscape
This team worked on creating a world that challenged your perceptions. They helped you enter a reality unlike our own. It is an experimental virtual reality experience coded in HTML and Javascript, with Google Cardboard technology, that explores the idea of power.

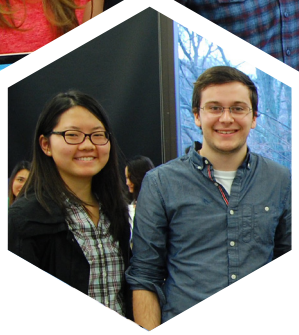
280
ATTENDEES

$6500
GIVEN IN PRIZES

♂ : ♀

63% : 32%





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