

HUMVEES!

FISHING!

SPEAKERS!

STAR WARS!

MALÖRT

# HOW YOUR WORLD WORKS



TECHNOLOGY

## THIRTY-SIX HOURS AT THE MOST IMPORTANT HACKATHON ON EARTH

Here's what happens when 400 prodigies and 1,500 cans of free Red Bull descend on Silicon Valley.

BY ALEXANDER GEORGE



In two days, Timothy Su, 21, created an app that exchanges money between payment platforms, such as Venmo and Bitcoin.

PHOTOGRAPHS BY  
DARCY PADILLA

**E**ven inside the Computer History Museum, August in Silicon Valley is too warm for a hoodie, so most of the 400 young engineers and programmers gathered here are wearing graphic T-shirts and baggy gym shorts or cargo pants. Many wear running shoes, but some are barefoot, and almost all have slumped posture and unstylish haircuts. Speakers on tripods at the edge of the room play dubstep, bass-heavy electronic music that reminds one of the sound effects from video games. "It's like you're a machine!" one engineer exclaims. Work surfaces are covered with oversize monitors, ergonomic mice, empty cans, and Sun Chips crumbs. Every item in sight serves the sedentary, stress-fueled, often solitary nature of inventing the future with ideas and a keyboard. This weekend, however, is anything but solitary.

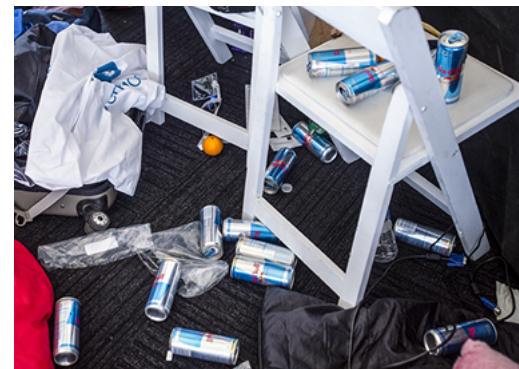
This is Hack the Planet, an especially prestigious hackathon. But that word, *hack*, doesn't mean the same thing it does in news stories about data breaches at Bank of America or Ashley Madison. In the context of this event and the thousands like it that take place around the world, to hack means to create: A hackathon is an invention competition with a time limit. Participants have 36 hours to make a gadget or an app that improves lives.

As for what makes this event more prestigious than most: Major League Hacking, the organization that hosts Hack the Planet and sanctions more than 150 hackathons every year, invited only college and graduate students and a handful of high schoolers who demonstrated both the creativity to come up with unusual ideas and the coding and engineering acumen to execute them. Jon Gottfried, an MLH cofounder, explains that he and the commissioners call up past winners and fanatical participants from other hackathons but also entrants like Stefanie Cohen, 23, who's known for creative hacks involving visual art. The builders who meet these criteria are exceptional, which is why sponsors such as Microsoft, Oculus, and venture-capital titan Andreessen Horowitz give Major League Hacking the cash to rent the second floor at the Computer History Museum and hand out soldering guns and Bluetooth transmitters. In return, those companies get to scout for new hires. For the few who don't already have work lined up, meetings here often lead to full-time jobs after graduation or lucrative summer internships.

By 11:00 Friday night, a quiet chaos that will last through the weekend has descended over the hall. Some programmers work alone, but some form teams. A few met weeks before tonight through the event's Facebook group. Others met at the team-building session a few hours ago, at which one Hack the Planet organizer wrote participants' ideas on a whiteboard.

Brijen Thananjeyan, Krishna Bharathala, and Jeffrey Chen, all 19, went to high school together. They take turns strapping an Oculus Rift headset around their heads, testing the virtual room they're designing in which users can draw on the walls. "The marks are pink," Bharathala says. "And I can't figure out how to change them."

Jenna Seco, 20, and Dan Stepanov, 24, who are dating, work with three other people on a calculator app that, when given the right number sequence, unlocks a secure messaging system for use in ISIS-controlled territories. At the next table, Shariq Hashme, 21, Justine De Caires, 17, and Anthony Lobko, 19, are building a noninvasive glucose meter for diabetics, but the lightbulb that sends light through the finger to the sensor keeps melting



Above, Fernando Faria, 22, tests an Oculus Rift system built by another hacker that teaches motor skills to people with cerebral palsy. At left, branded swag and hackathon fuel (Red Bull).

## HACKED APPS

Impressive creations born at previous hackathons.



**GroupMe**  
A group-messaging app that preceded now essential workplace chat providers, this was built at the TechCrunch Disrupt Hackathon in 2010. Skype bought it a year later for an estimated \$43 million.



**Workflow**  
Created at the 2014 Mihacks at the University of Michigan, this app can trigger a set of functions under preset conditions, such as automatically uploading photos. It won an Apple Design Award.



**Cosmos**  
A team of four built this text-based Web crawler at a University of Michigan event and is now expanding it at an accelerator so exclusive that fewer than 1 percent of applicants are admitted.

the adhesive holding it in position. More experienced engineers stand by to help competitors who are stuck, easily spotted by their heavy sighs, rapid foot tapping, and muttered profanity. The mentors, barely older than the competitors, point out problems in their code.

A few competitors spend the entire weekend awake, like Shane Engelman, 27, a former U.S. Air Force serviceman, or at least try to, like Aki Gao, 21, who drank five Red Bulls within the first two hours and 13 more over the course of the hackathon. Most sleep intermittently, either on pads in gender-segregated, darkened conference rooms or under the main room's fluorescent lights. Many of those napping are wearing Pebble-branded pajamas or resting on Microsoft-branded neck pillows—freebies.

Sunday morning, time is called at 10:00, and the programmers set up their creations like students at a science fair. Four finalist judges, veterans of the software and hardware industries, are looking for functionality, technical complexity, creativity, and whether they'd actually use the end result. They give top honors to an app that lets you make music with your voice while waiting on hold on the phone. Sponsors, who all offer their own awards, announce other winners. BMW's motorcycle division has the most coveted prize: a trip to the Munich headquarters to pitch the idea to management. That one goes to an app that links experienced motorcycle owners with curious newbies.

Participants are, or pretend to be, indifferent to the results. When asked whether he was upset about not winning the BMW prize, Engelman says, "That's not why I come to these things." Watching the intense collaboration happening around the room, you can see his point. A trip to Germany might be the highlight of a young adult's life, but the social communion among 400 people in the same place who enjoy talking about nodes and API—that is why they come. It's the chance to code and hack and solder, yes. Of course. It's the opportunity for internships and job offers. But really, they come for the humans.

Copyright of Popular Mechanics is the property of Hearst Magazines, a division of Hearst Communications, Inc. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.