

Massachusetts Institute of Technology Monday, January 31, 2011 techfair.mit.edu

TechFair To-Do Checklist

Get a booklet BEFORE Drop off your resume online techfair.mit.edu/drop Code the night away @ Hack-a-thon Sunday 1/30 @ 10 PM - 8 AM, Room 32-082 Facebook is sponsoring an all-night coding competition techfair.mit.edu/hack Get to THE FAIR early for freebies Monday 1/31 @ 10 AM - 3:30 PM **DURING THE FAIR** @ Rockwell Cage Attend TechTalks, collect stickers, enter raffle Sticker Passport (page 25) Hit up some MIT Student Booths Turns out MIT students are kind of talented. Check out a company demo Score a banquet invite from a company Monday 1/31 @ 6 PM - 8:30 PM @ Hyatt Regency, Charles View Ballroom (16th floor) Party it up at the TechFair Afterparty

AFTER

Monday 1/31 @ 9 PM - 11 PM @ E15 (Old Media Lab) Lower Atrium Last night before school starts! Sponsored by Microsoft Xbox Kinect. Music. Halo. Windows Phone 7. Xbox raffle!

Table of Contents

TechFair To-Do Checklist	0
Welcome	2
About the Team	2
Sponsors	
Platinum Sponsor: Oracle	4
Gold Sponsors	5
Silver Sponsor	8
Bronze Sponsors	12
Special Sponsors	14
Startup Sponsors	15
Student Exhibitors	
MIT startups	16
Individual student projects	18
Student groups	19
THINK	
Overview	20
Winners	21
THINK sponsors	22
Index	23
Notes	24
TechTalk sticker passport	25
Back cover schedule	

Welcome

A message from Emily Zhao, Managing Director

Welcome to the seventh annual MIT TechFair. The fair is student-run and open to all members of the MIT community. It will be action packed and awe inspiring.

TechFair is a truly unique event on MIT's campus. We are not a career fair, though many of the companies and laboratories attending offer competitive internships and full-time positions. We are a fun event that is about discovery, and we hope that you come to see all of the booths not just the ones with which you are already familiar. In addition to the fair, we also host a hack-a-thon, a banquet, and an afterparty.

TechFair was founded with the mission of bringing the latest technology to the MIT community. We actively sought out companies and laboratories that could bring interesting products and demonstrations. For MIT students, these companies also offer some of the best opportunities, work environments that are intellectually stimulating and promote creativity.

We also highlight talent found on campus: MIT students who tinker and hack in their dorm rooms late at night. Student Relations, TechFair's newest committee, released online applications for student projects and startups as a trial in December. We were overwhelmed by the quality and quantity of applicants. MIT students are truly innovative, and, if not for the companies, come to see your peers!

The past eight months have been a journey. When the newly elected executive team first gathered in May, we did not know what we wanted to accomplish and we did not know each other well. After an intense semester of meetings, workshops, and retreats (on top of schoolwork), we united under a vision and learned to depend on one another. I feel truly honored to be working with such a talented and motivated team. We have 40 people on our organizing board. All of the great ideas that make TechFair 2011 stand out from past years, such as Student Relations, the afterparty, creative marketing hacks, the new website, and brilliant logistics solutions, must be attributed to them.

With that, I hope you enjoy TechFair. Watch out for opportunities to get involved with our organizing board in the Spring.

Sincerely, Emily Zhao Managing Director, TechFair 2011

Team

Emily Zhao '12 Managing Director Jeff Chen '12 Associate Director Corporate Relations techfair-cr@mit.edu Jeff Chen '12 & Kuan Cheng '12, directors Bonny Jain '14 Akhil Raiu '14 Alex C. Wang '14 Judy Deng '14 Rohan Kamdar CME '12 Paige Finkelstein '14 David Kim '13 Wenting Zheng '13 Jonathan Gootenberg '13 Joshua Ma '14 Oliver Huang '14 Animish Sivaramakvishnan CME '12 Marketing techfair-mkt@mit.edu Susie Fu '12, director Heidi Ashley '12 Ramya Swamy '14 Cathy Zhang '13 Jonathan Batscha '14 Bonny Jain '14 Carolyn Zhang '14 Jessica Chen '14 Jennifer Wang '14 Ranna Zhou '14 Logistics techfair-log@mit.edu Emily Zhao '12, director Ravi Charan '14 David Luciano '14 Julie Wang '14 Diana Hsieh '13 Tiffany Peng '13 Maja Wichrowska '13 THINK techfair-think@mit.edu Nick Dou '12, director Alyx Daly '13 April Li '12 Vo Thanh Minh Tue '14 Iris Xu '14 Somak Das '14 Allen Lin '11 Chen Dan Dong '14 Oliver Song '14 Jet Zhou '11 Student Relations techfair-tf@mit.edu Nick Chornay '12, director Ravi Charan '14 Ramya Swamy '14 Akhil Raju '14 Jennifer Wang '14 Information Technology techfair-it@mit.edu Susie Fu '12, director

Finance
Cyril Lan '11, director

Sherry Wu '14

Joshua Ma '14

Human Resources

Jeff Chen '12, director Jessica Chen '14

Kenny Lam '13

Jennifer Wang '14

Cathy Zhang '13

techfair-finance@mit.edu

Ranna Zhou '14

Biotechnology

Evelyn Wang '12

techfair-hr@mit.edu





Oracle

oracle.com/college

At Oracle, exceptional is expected. We provide the world's most complete, open, and integrated business software and hardware systems. With more than 370,000 customers in over 145 countries around the globe, Oracle technology can be found in nearly every industry.

It takes an astonishing group of people to drive Oracle's future. Now is a great time to join Oracle in the creation of next generation software and hardware innovations. No matter which role or team you choose, you'll work with the most advanced technology.

We seek ambitious, energetic individuals to join us in these roles:

- · Computer Scientists
- · Software Developers
- · Hardware Engineers
- · Chip Designers

...and many more.

Ideal candidates will have a BS/MS/PhD in CS, EE, ME, CE or related degree for full-time regular and internship opportunities.



Photo by Jeremiah Owyang

Dropbox

dropbox.com/jobs

At Dropbox we're revolutionizing the way that people think about and access their files. In particular, we make it easy to securely share files with other people, sync them across multiple computers, access them from anywhere, and keep them safe. Dropbox was founded by Drew Houston and Arash Ferdowsi in 2007, and received seed funding from Y Combinator. Today, Dropbox is well-funded by Sequoia Capital, Accel Partners, and Amidzad. Since launching publicly in September 2008, we've attracted millions of users and are growing rapidly. We've been featured in the New York Times and on TechCrunch, and have won awards from places like PC Magazine and CNET. Our passion is making a product that rocks and putting it in millions of people's hands. We're located in the heart of San Francisco. We offer competitive salaries and benefits, interesting challenges, and a fun work environment. We're locking for great people to join us.

Why work at Dropbox? When it comes down to it, you want to work on things you enjoy. You're free to choose what you work on at Dropbox because we want you to own a project and feel passionate about it. Since we don't wait for product cycles, this means that you can start a project on Monday and have it seen by millions on Friday. Dropbox is working on big problems - the kind of challenges that give you bragging rights. We deliver petabytes of data across Windows, Mac OSX, Linux, Android, iOS, Blackberry, and browsers all over the world. We have millions of users and only a handful of engineers, and we're looking for more people to join us!

Facebook

Hack-a-thon Sponsor

facebook.com/careers/puzzles.php

Facebook is actively looking for incredibly intelligent undergrad, grad and PhD students for full-time positions and summer internships. Because we're growing so quickly, there is enormous opportunity for individuals to have an impact and to grow as our service and company grows. We've got 500+ million users so far, but we have so much more to do and build... and that's where your kung-fu comes into play.

The web is shifting from a vast encyclopedia of information to a social environment that reflects our real identities, and the relationships and information we care about. Facebook is at the forefront of that change. We're leading a social movement by building ground-breaking technology that gives people the power to share and makes the world more open and connected. As we grow quickly in every way, each of our employees has the opportunity to have an enormous impact. We're looking for dynamic people who get excited by big questions and unsolved problems.

TechFair Hack-a-thon

An all-night coding competition sponsored by Facebook. You bring those programming skills, we'll bring the fuel. Win a trip to Facebook headquarters in Palo Alto!

Sunday 1/30 10 PM - Monday 1/31 8 AM, Room 32-082 (Stata Basement TEAL Room)

Lockheed Martin

lockheedjobs.com

Driven by innovation and integrity, Lockheed Martin employees dream big and then turn those dreams into reality. Lockheed Martin is a leading systems integrator and global security company principally engaged in creating systems vital to the safety and security of free nations. We design and manufacture platforms such as aircraft, ships, satellites, and land vehicles that support the U.S. armed forces and allied nations. We also partner with the Department of Homeland Security to assist in keeping Americans safe from the adversaries of freedom. As the foremost Federal IT contractor, Lockheed Martin manages and secures large databases and other IT systems for a diverse set of government agencies. We apply our cyber security technologies to keep government and business computer networks operating freely. We also design the next generation of alternative energy solutions and develop satellites to bring space exploration down to earth. Governments worldwide look to us as a partner in their efforts to build the institutional mechanisms that promote stability, peace, and economic development. We have 1,000 facilities in 500 cities and 46 states across the U.S. and business locations in 75 countries and territories. With 136,000 employees worldwide, Lockheed Martin generated sales of \$45.2 billion in 2009. You can explore engineering careers in any of Lockheed Martin's diverse lines of businesses and work on some of the most important projects in the world! Our Vision: Powered by Innovation, Guided by Integrity, We Help Our Customers Achieve Their Most Challenging Goals. Our Values: Do what's right - Respect others - Perform with excellence.

MathWorks

mathworks.com/company/jobs/

MathWorks, founded in 1984, is the leading developer of mathematical computing software. Engineers and scientists worldwide rely on its products to accelerate the pace of discovery, innovation, and development. MATLAB®, the language of technical computing, is a programming environment for algorithm development, data analysis, visualization, and numeric computation. Simulink® is a graphical environment for simulation and model-based design (MBD) of multidomain dynamic and embedded systems. The company produces nearly 100 additional products for specialized tasks such as data analysis and image processing.

MathWorks products are used throughout the automotive, aerospace, communications, electronics, and industrial automation industries as fundamental tools for research and development. They are also used for modeling and simulation in increasingly technical fields, such as financial services and computational biology. MathWorks software enables the design and development of a wide range of advanced products, including automotive systems, aerospace flight control and avionics, telecommunications and other electronics equipment, industrial machinery, and medical devices. More than 5000 colleges and universities around the world use MathWorks solutions for teaching and research in a broad range of technical disciplines.

Microsoft

Afterparty Sponsor

microsoft.com/university

Microsoft is the worldwide leader in software, services and solutions that help people and businesses realize their full potential. We're motivated and inspired by how our customers and partners use our software to find creative solutions to business problems, develop breakthrough ideas, and stay connected to what's important to them. We run our company in much the same way. Our employees come as they are and do what they love. We're a global company, located in over 100 countries, but we often act like a startup. We do software – but we also do hardware, services, research, and community outreach. We work hard, but we value work/life balance, and each of us defines what that means to us. So why not explore what we do, where we do it, and what life is really like at Microsoft? You just might be surprised. We're still hiring for the following fulltime and internship positions:

- Program Manager: Drive the technical vision, design and implementation of next-generation software solutions.
- Software Development Engineer: Make decisions about design and feature implementation, using your mastery of technical tools to make a product vision a reality.
- Software Development Engineer in Test: Own it, break it, fix it, and own it again. Ensure a
 product's quality by making sure it performs as users expect it to.

Stop by the Microsoft-sponsored TechFair Afterparty: E15 (Old Media Lab) Lower Atrium 9 -11 PM

Palantir

palantir.com/college

Palantir Technologies is working to radically change how groups analyze information.

We were founded in 2004 by a handful of PayPal alumni and Stanford computer scientists. Since then, we've doubled in size every year while retaining our early-stage values: a startup culture, strong work ethic, and rigorous hiring standards.

We currently offer two products: Palantir Government and Palantir Finance. Both are platforms for integrating, visualizing, and analyzing the world's information. We support many kinds of data including structured, unstructured, relational, temporal, and geospatial. Our products are built for real analysis with a focus on security, scalability, ease of use, and collaboration.

Palantir Government is broadly deployed in the intelligence, defense, and law enforcement communities, and is spreading rapidly by word-of-mouth. Palantir Finance is in use at some of the world's leading hedge funds and financial institutions.

Palantir is headquartered in sunny downtown Palo Alto, CA with offices in Tysons Corner, VA and London, UK.

23andMe

23andme.com

23andMe, Inc. is a leading personal genetics company dedicated to helping individuals understand their own genetic information through DNA analysis technologies and web-based interactive tools. The company's Personal Genome Service™ enables individuals to gain deeper insights into their ancestry and inherited traits. The vision for 23andMe is to personalize healthcare by making and supporting meaningful discoveries through genetic research. 23andMe, Inc. was founded in 2006, and the company is advised by a group of renowned experts in the fields of human genetics, bioinformatics and computer science.

Akamai

akamai.com

Akamai has created a digital operating environment for the Web. Our global platform of thousands of specially-equipped servers helps the Internet withstand the crush of daily requests for rich, dynamic, and interactive content, transactions, and applications. When delivering on these requests, Akamai detects and avoids Internet problem spots and vulnerabilities, to ensure Websites perform optimally, media and software download flawlessly, and applications perform reliably. Hundreds of enterprises worldwide use our global platform to sell, inform, entertain, market, advertise, deliver software, and conduct their business online. Through our EdgeControl they also gain insight into worldwide Internet conditions and access to tools to manage their online business. Today Akamai handles tens of billions of daily Web interactions for companies like Audi, NBC, and Fujitsu, and organizations like the U.S. Department of Defense and NASDAQ -- powering brand new business models that serve the changing online economy.

Boeing

boeing.com

Boeing is the world's leading aerospace company and the largest manufacturer of commercial jetliners and military aircraft combined. Additionally, Boeing designs and manufactures rotorcraft, electronic and defense systems, missiles, satellites, launch vehicles and advanced information and communication systems. As a major service provider to NASA, Boeing operates the Space Shuttle and International Space Station. The company also provides numerous military and commercial airline support services. Boeing has customers in more than 90 countries around the world and is one of the largest U.S. exporters in terms of sales. Headquartered in Chicago, Boeing employs more than 158,000 people across the United States and in 70 countries. This represents one of the most diverse, talented and innovative workforces anywhere. More than 123,000 of our people hold college degrees — including nearly 32,000 advanced degrees — in virtually every business and technical field from approximately 2,700 colleges and universities worldwide.

Cisco

cisco.com

Founded in 1984, Cisco pioneered the development of Internet Protocol (IP)-based networking technologies. This tradition continues with the development of routing, switching, and other networking-based technologies such as application networking services, collaboration, home networking, security, storage area networking, TelePresence systems, unified communications, unified computing, video systems, and wireless. Cisco and our valued partners sell Cisco hardware, software, and services to businesses of all sizes, governments, service providers, and consumers. An integral part of Cisco's business strategy is strong corporate social responsibility. Beyond our investments in social programs and commitment to environmentally conscious operations and products, we are proactively engaged with global governmental, scientific, and social leaders to develop solutions to climate change, to create economic and educational opportunities, and to address other pressing social and environmental issues.

Cooliris

cooliris.com

Cooliris, Inc. was founded in January 2006 with a simple mantra: "Think beyond the browser." We now work toward revolutionizing the way the world thinks about and interacts with content on all devices. Our company's flagship product is Cooliris, a free browser add-on that provides a lightning fast, cinematic way to discover the Web.

Our other products include:

- Cooliris Express: a tool that enables users to quickly and easily embed a Flash-based Cooliris
 Wall with their custom content on any website, blog, or social network.
- LiveShare: a fun mobile and web application that makes it easy for you and your friends take
 pictures at cool events and share them all in one live photostream.
- Discover: a popular iPad application that lets users explore, find, and enjoy information from Wikipedia in a rich magazine-like interface.

Interactive Intelligence

ININ.com

Interactive Intelligence Inc. is a global provider of unified business communications solutions for contact center automation, enterprise IP telephony, and business process automation. The company has developed an IP communications software suite that's scalable and standards-based, offering single-platform architecture with inherent multi-channel processing to deliver comprehensive applications minus the cost and complexity introduced by multi-point vendors. We are researching ways to use artificial intelligence to help solve problems such as speech analytics and data mining. Founded in 1994 and backed by more than 3,500 customers worldwide, Interactive Intelligence is an experienced leader delivering a comprehensive solution-set composed of premise-based and communications-as-a-service (CaaS) offerings, including software, hardware, consulting, support, education and implementation.

Meso Scale Diagnostics, LLC (Meso Scale Discovery)

mesoscale.com

Meso Scale Diagnostics, LLC. (MSD) is a rapidly growing company specializing in the field of multiplexed biological measurements, providing cost effective and valuable information for drug discovery, high throughput screening and proteomics research to scientists in pharmaceutical, biotechnology, government and academic research organizations.

Located in Gaithersburg, Maryland, MSD develops, manufactures and markets cutting edge instruments and assay kits based on its proprietary electrochemiluminescence detection technology.

Mozilla

college.mozilla.com

Mozilla is a global community dedicated to building free, open source products and technologies that improve the online experience for people everywhere. We work in the open with a highly disciplined, transparent and cooperative development process, under the umbrella of the non-profit Mozilla Foundation. As a wholly owned subsidiary, the Mozilla Corporation organizes the development and marketing of Mozilla products. This unique structure has enabled Mozilla to financially support and cultivate competitive, viable community innovation.

Schlumberger

careers.slb.com

Schlumberger is the world's leading oilfield services company. We provide highly specialized, cutting-edge technologies and advanced expertise that are essential to satisfying the ever rising worldwide demand for energy. Operating in increasingly extreme environments, we face the global challenge of optimizing petroleum exploration and production in environmentally responsible ways. We are constantly seeking exceptional people to join our team in meeting this challenge. Opportunities exist for a borderless career in which individuals are encouraged to develop career paths that suit not only the needs of the company but also their personal circumstances and aspirations. At Schlumberger, we believe that diversity spurs creativity, collaboration, and understanding of customers' needs, we employ over 105,000 people of more than 140 nationalities working in approximately 80 countries. For additional information and employment opportunities please visit us online at careers.slb.com.

Synaptics

synaptics.com

Synaptics is the leading worldwide developer of user interface solutions for mobile computing, communications and entertainment devices. Our mission is to enrich the interaction between users and their intelligent devices.

Synaptics products emphasize ease of use, small size, low power consumption, advanced functionality, durability and reliability, making them applicable to a multitude of markets, including notebook computers, PC peripherals, mobile phones, and portable entertainment devices such as MP3 players.

WALZ Group

walzgroup.com

Walz is the nation's leader in managing critical communications between organizations and their customers and constituents.

Companies across multiple industries – financial services, mortgage servicing, government agencies, legal and foreclosure firms, court systems, insurance companies, healthcare and pharmaceutical firms – are required to send "critical" documents to their customers, borrowers, constituents, partners, policy holders, clients, or other key stakeholders.

Over 2,500 companies – including 34 of the Fortune 100 – utilize Walz solutions to manage their critical documents

Adobe

adobe.com/university

Adobe revolutionizes the world through digital experience. For 25 years, the company's award-winning software and technologies have redefined business, entertainment, and personal communications by setting new standards for producing and delivering content that engages people virtually anywhere at any time. From rich images in print, video, and film to dynamic digital content for a variety of media, the impact of Adobe solutions is evident across industries and felt by anyone who creates, views, and interacts with information. Adobe is one of the world's largest and most diversified software companies.

TATA

att.jobs

AT&T Inc. is a global leader in communications and a recognized leader in Business-related voice and data services, including global IP services, hosting, applications, and managed services. Businesses all over the world, deploy AT&T services to improve productivity, manage overall costs, and position themselves to take advantage of future technology enhancements.



Azure Dynamics

azuredvnamics.com/careers

Azure Dynamics Corporation is a world leader in the development of electric and hybrid electric vehicle drive systems for medium and heavy duty commercial trucks and buses. Azure offers an exciting opportunity to be "part of the solution" as a company with innovative technology addressing climate change issues and the increasing cost of fuel. Azure is a public company traded on the TSX in Canada, the OTCQX in the United States.

Foursquare

foursquare.com/jobs

Foursquare is a location-based mobile platform that makes cities easier to use and more interesting to explore. By "checking in" via a smartphone app or SMS, users share their location with friends while collecting points and virtual badges. Foursquare guides real-world experiences by allowing users to bookmark information about venues that they want to visit and surfacing relevant suggestions about nearby venues. Merchants and brands leverage the Foursquare platform by utilizing a wide set of tools to obtain, engage, and retain customers and audiences.

General Electric

ge.com

GE IS IMAGINATION AT WORK - From jet engines to power generation, financial services to water processing, and medical imaging to media content, GE people worldwide are dedicated to turning imaginative ideas into leading products and services that help solve some of the world's toughest problems. GE attracts leaders with an extraordinary combination of attributes: vision, passion and deep sensitivity to the big issues that challenge the world around them. A remarkable thing happens when you bring together employees who are driven to make a difference: they do.

Google

google.com/students

Larry Page described the "perfect search engine" as something that "understands exactly what you mean and gives you back exactly what you want." Google is not a conventional company, and we don't intend to become one. We share attributes with the world's most successful organizations, but as we grow, we're committed to retaining a small-company feel. Every employee is integral to our success. Googlers thrive in small, focused teams and high-energy environments, believe in the ability of technology to change the world, and are as passionate about their lives as they are about their work.

NAVAIR

www.navair.navv.mil/nawcwd

The Naval Air Systems Command (NAVAIR) serves the nation and the Navy by providing advanced warfare technologies. NAVAIR's mission is to provide full life-cycle support of naval aviation aircraft, weapons and systems operated by Sailors and Marines. This team researches, designs, develops and tests aeronautical and aeronautical-related systems. NAVAIR's products include state-of-the-art sensors, aircraft, weapons, training, launch and recovery equipment & communications technologies.

OPNET Technologies Inc.

www.opnet.com/careers

Founded in 1986, OPNET Technologies, Inc. (NASDAQ: OPNT) is a leading provider of solutions for IT service assurance. OPNET's best-in-class solutions address: application performance management, network performance management, and network R&D. OPNET's solutions deliver broad visibility and monitoring across infrastructure domains as well as deep data collection and analytics to enable powerful root cause diagnosis. OPNET's solutions have been operationally proven in thousands of customer environments worldwide, including corporate and government enterprises, defense agencies, network service providers, and network equipment manufacturers.

REAL Software Systems

realsoftwaresystems.com

The creation, protection, and economics of Intellectual Property (IP) enable the pursuit of innovation and distribution of knowledge. Adapting businesses models rooted in the development and distribution of IP spur the creation of medicines, literature, music, movies, games and many more innovations. REAL Software Systems provides contract management and accounting solutions for intellectual property licensing and distribution. The Alliant™ software solution is used in multiple converging markets such as Entertainment, Publishing, and Digital & Mobile Media.

Volkswagen ERL

vwerl.com

Blending German engineering with American ingenuity, the Volkswagen Group Electronics Research Laboratory (ERL) accelerates automotive innovation by expanding and extending Volkswagen Group of America's technical intelligence at our facilities in Silicon Valley. The ERL also works with research and development teams in Germany and at the Volkswagen Group of America headquarters in Herndon, VA. Volkswagen Group of America marries the science of engineering, the art of styling and the power of innovation to produce vehicles that excite the eyes, stir the soul and deliver powerful yet responsible performance.

Lincoln Laboratory

Non-Profit Sponsor

www.ll.mit.edu/employment/

Lincoln Laboratory's mission is to apply science and advanced technology to critical problems of national security. A Department of Defense federally funded research and development center, LL emphasizes prototyping and demonstrating operation systems under live test conditions to meet real-world requirements. Candidates have the opportunity to engage in research and development activities in: space control, air & missile defense technology, communication & cyber security, intelligence, surveillance, and reconnaissance systems and technology, advanced electronics technology, tactical systems, homeland protection and air traffic control.

UPOP

MIT Program Sponsor

upop.mit.edu

The Undergraduate Practice Opportunities Program, UPOP, introduces MIT undergraduates to the "firm skills" they need to translate their technical training into thriving careers. Firm skills fall into two educational tracks of engineering effectiveness/communication and strategic career planning. The curriculum is designed to help students prepare for the cultural change from academia to the workplace. UPOP students receive academic training, hands-on industry practice, mentoring and networking opportunities, and individually tailored coaching in the context of authentic team challenges. UPOP is the sophomore year of the Gordon-MIT Engineering Leadership Program.

Aurora Flight Sciences

www.aurora.aero/careers

Aurora Flight Sciences was founded in 1989 and has been a leader in innovation for unmanned aircraft systems and composite aerospace structures ever since. Aurora is a small and nimble player in the aerospace field, but with an unmatched breadth for its size, with projects ranging from leading edge research in autonomy and controls, through development and detailed design of complete aircraft, to the manufacture of close-tolerance aerospace structures.

Circle Twelve, Inc.

circletwelve.com

Circle Twelve is the maker of the DiamondTouch table - the world's first multi-user touch technology. It allows multiple people to interact simultaneously on a computer touchscreen while identifying who is who. DiamondTouch supports all standard Windows software and is ideal for face-to-face, small group collaboration for business and education.

LiquidPiston

liquidpiston.com

LiquidPiston Inc., a VC-funded startup with MIT roots, is developing the next generation of combustion engines. Improved thermodynamics result in 50% average efficiency, a threefold improvement over conventional diesel engines, while the engine is only one quarter the size and weight. The LiquidPiston engine is also whisper quiet and scalable to serve a variety of markets. Having recently raised a series B-round of investment, we are seeking highly talented engineers looking to transform the world.

Prepr Foundation

preprfoundation.org

Prepr Foundation came into existing in the summer of 2010. Our primary initiative is to promote open education by means of financial assistance, content delivery and guidance for entrepreneurship.

Tap 'n Tap

tapntap.com

Tap 'n Tap is a Cambridge-based startup founded in 2008 to bring the best user experience to Android Tablets. TnT is proud to be shipping to market one of the few complete software stacks deployed in the early market for tablets with self-designed and optimized operating system, UI and applications.

We are in high-growth mode and are looking to hire the smartest, most ambitious Android developers to implement innovative system solutions and cutting edge applications.

MIT Student Exhibitors

This year TechFair sought to expand and explore our purpose as a technology exposition. In addition to showcasing companies, this year, we feature a number of groups around campus, from student groups to startups. MIT is and has always been a center of innovation and technology, and indeed the Institute's alumni are well represented among the companies here at TechFair. As such, it is appropriate to also showcase the creativity of current MIT students. In the case of individual exhibitors, many projects on display represent the toil and genius of individual students (though depending on how you view it, the knowledge is not, strictly speaking, their own), while some projects are affiliated with MIT laboratories, or even arose from the Mechanical Engineering department's capstone class, 2.009. On the other hand, some students are here at TechFair with their very own freshly-minted startups, continuing this school's rich entrepreneurship tradition. Whatever the motivation, all of these projects are intriguing, useful, or both, and we sincerely hope that you appreciate the display of technology at MIT alongside the rest of TechFair.

Blossom Coffee

Jeremy Kuempel '10, Course 2

The Blossom is a coffee machine thatw can tightly control brew parameters to produce superior tasting coffee and aid experimentation. It is easy to operate, easy to clean and headed for home usage. Blossom also aims to create a network of stores to spread knowledge about gourmet coffee, distribute the Blossom machine, and provide an elegant and classy Third Place for people to gather outside of home and work.

Cardigo

cardigo.org

Michael Lo '12, Course 2 | Nathaniel Fox '12, Course 2

Cardigo is a very simple construction toy that allows the user to build complex structures out of familiar planar objects such as index cards, playing cards, or business cards. The Cardigo piece is a small plastic clip that holds cards together, allowing the user to build with them.

Forever Bold Business Cards

foreverbold.com

Kevin Rustagi '11, Course 2 | Robert McIntyre '11, Course 6

Forever Bold is a company that takes commodities and makes them-and you-stand out. With a unique application of laser-engraving, we are launching v. 2.0 of our laser-engraved business cards, now aluminum. Forever Bold. Technology + Design.

hiFlii

hiflii.com

Latif Alam '12, Course 6 | Keshav Puranmalka '12, Course 6 & 18 | Krishna Gupta '09, Course 3 & 15 | Phillippe Siclait '11, Course 14 |

George Courtsunis '09, Course 6 | Sean Leow '12 Course 15 | Nitin Mangal '12, Course 15

hiFlii changes passenger travel experience by (1) integrating pieces of the passenger value chain and (2) introducing social and location-based services in a personal and relevant manner.

LeafLabs, LLC

leaflabs.com

Drew Shapiro '12, Course 6 | Jessica Barber '10, Course 6 & 8 |
Andrew Meyer '10, Course 6 | Hanna Mendes Levetin '10, Course 18 | Barry Bradlyn '09 |
Martí Bolivar '08, Course 18 | Perry Hung '08, Course 6

We produce high-powered microcontroller development boards for quickly hacking up real-time audio filters, VGA videos, and motion control systems. All designs and software are open-source.

Manifold Studios

manifoldstudios.com

Jeremy Rossmann '13, Course CMS | Daniel Fremont '13, Course 8 | Edward Obropta '13, Course 16 | Andres Lopez-Pineda '12, Course 6

Manifold Studios is an iPhone game development studio. Their first game, WarSquared, is a steampunk-themed, real-time, strategy game that can be played over multiple iPhone screens. An early version is available now on the App Store and the full version 1.0 will be available in February.

Rensa

2.009 Green Team

Rensa is a reusable-bottle washer and a water dispenser made for use in gyms. The device will wash any bottle between 2.50 and 4.25 inches in diameter, using soap and hot water. Tests show this kills 99% of the bacteria. Rensa also can fill a bottle with chilled, filtered water at 3 times the rate of a regular drinking fountain. Intended for free use, Rensa is fast, efficient, and offers a great alternative to buying disposable water bottles after a long workout.

Sana Mobile

sanamobile.org

Sana's mission is to revolutionize healthcare delivery for rural underserved populations. To this end, Sana provides an open-source Android-based telemedicine platform for clinical research and best-practice health care delivery. Based on the work and contributions of students, volunteers, partner organizations, and sponsors, Sana offers an open source data collection and collaboration platforms for clinical research and best practice health care delivery.

Audio Modulated DRSSTC Tesla Coil

Tyler Christensen '14, Course 6

This high voltage generator is a Double Resonant Solid State Tesla Coil which is audio modulated so that it can play notes, and then be programmed to play songs. This is done by essentially turning the arc on and off at audio frequency. The driver runs in a self resonant feedback mode to allow for very high primary currents through the IGBT transistor bridge, sometimes up to several thousand amps.

FI Wire Suit

domalley.wordpress.com

Luke O'Malley '14, Course 6

Made of black dress clothes, the EL Wire Suit is an outfit initially built to test electroluminescent wire (EL wire). The wire, which glows when a high voltage signal is applied, is used in the sign-making, safety, and even in entertainment by artists such as Daft Punk. The suit is highlighted with the material and flashes the suit to the beat of music and other environmental noise.

The Musical Wearable

vangware.wordpress.com

Yang Yang '11, Course 4

The Musical Wearable is a joyous artifact that when worn, allows the wearer to make music from movements of dance. When dancing, people move their bodies in different ways. They may each also have individual rhythms and styles. By mapping different movements to different sounds, the Musical Wearable creates music that responds to and reinforces the act of dance.

Stuff Charles Made

www.etotheipiplusone.net

Charles Z. Guan '11, Course 2

Various projects with a focus on experimental electric vehicles. Includes small electric scooters featuring miniature electric hub motor tech and wireless motorized electric inline skates. Electric all-terrain skateboard. Custom Segway with all-analog balancing controller. The infamous LOLrioKart. Also, 30-pound class combat robots and a fused-deposition modeling 3D printer.

WiiBook

Charles Franklin '14. Course 2 & 6?

The WiiBook is an old Apple iBook that has been converted into a fully functional Nintendo Wii. All of the original computer parts were removed, and replaced with parts from a Wii that was taken apart, effectively making a portable Wii.

MIT Electric Vehicle Team (EVT)

web.mit.edu/evt/

The MIT Electric Vehicle Team is a group of over 30 active undergraduate and graduate students at MIT who are dedicated to the research, design, and operation of electric vehicles (EVs). The team has completed one EV conversion and started a second conversion in June 2009. In addition, the team is active in education and community outreach. EVT is supported by the Sloan Automotive Laboratory, Electrochemical Energy Laboratory, and Edgerton Center at MIT.

MIT Solar Electric Vehicle Team (SEVT)

solar-cars.scripts.mit.edu

The MIT Solar Electric Vehicle Team is a student organization dedicated to demonstrating the viability of alternative energy-based transportation. The team was founded in 1985 and since 1993 has worked under the auspices of MIT's Edgerton Center. Since its creation, the SEVT has built ten vehicles and competed successfully in national and international races, most recently the 2009 Global Green Challenge in Australia.

MIT Motorsports: Formula SAE (FSAE)

web.mit.edu/fsae/

A pair of freshmen, Rich J. and Nick G., founded the MIT Formula SAE in 2001; to which the late Carroll Smith commented "It's about damn time MIT got a team going." Since then, the team has seen the integration of a 2.007 section and developed a two-year design cycle between competitions. After a flawless four days at FSAE West in Fontana in June 2010, MIT FSAE placed 8th overall and 2nd in fuel economy, the team's best finish to date.

IDEAS/MIT Global Challenge

globalchallenge.mit.edu

The world has problems. You have ideas. IDEAS and the MIT Global Challenge are an annual invention and entrepreneurship competition that award up to \$150,000 (up to \$25,000 per team) to innovative service projects that positively impact underserved communities. Contact us at kmytty@mit.edu

MIT Mobility Lab: Leveraged Freedom Chair (LFC)

mlab.mit.edu/lfc/

Conventional wheelchairs are unsuited for the rough roads and long distances faced by the disabled in developing countries. The LFC's unique lever drivetrain enables users to travel faster than conventional wheelchairs on tarmac and off road like no other mobility aid available.

THINK Competition

As an educational outreach program under TechFair, the MIT THINK Competition encourages and celebrates the efforts of the next generation to create Technology for Humanity guided by Innovation, Networking, and Knowledge. The mission of the MIT THINK Competition is to recognize talented and motivated high school students across the United States who:

- · Explore the innovations driving today's technological development.
- · Seek resources from experts in various fi elds by networking and collaborating.
- · Use their knowledge to address today's technological challenges for the benefit of humanity.

A Unique Learning Experience

THINK is more than a science and technology competition. It aims to inspire students, especially those with limited resources, by showing that extraordinary results can be achieved with personal initiative and hard work. Passion and persistence can transcend current limitations to fulfill daunting endeavors. The competition not only recognizes the technical skills to generate innovative solutions but also the social networking skills to obtain resources from society. Networking is the essential element that connects knowledge with innovation, an emphasis that makes THINK a unique high school competition.

THINK Results

Winners on next page

Semifinalists below

Ideas Proposal Category

Grace Kim from Jericho Senior High School, Jericho, New York

A Novel Approach for the Development of Dendritic Cell-Based Malaria Vaccine: Aritificial Fusion between Dendritic Cells and Parasitized RBCs

Ha Eun (Angela) Hyun from Jericho Senior High School, Westbury, New York

Analysis of Diabetic Retinopathy: Resveratrol and Proanthocyanidins as Mechanisms of NF-Kb

Inhibitor

Home-Grown Project Category

Jeffrey Wang from Auburn High School, Machensey Park, Illinois Designing Epidemic Containment Strategies Using Stochastic Cellular Automata Arjun Balasingam from Archbishop Mitty High School, San Jose, California An Electronic Cabinet Designed to Help the Elderly Take their Medications on Time

Lab Project Category

Nidhi Mann from Plainview Old Bethpage JFK High School, Plainview, New York Emulsification of Crude Oil by Modified Sophorolipid Analogs Matthew Kim from Commack High School, Dix Hills, New York Optimizing Flux in RO Membranes

THINK Winners

7ach Porter Ideas Proposal Category

High Technology High School, Lincroft, New Jersey

The Utilization of Binaural Beats as Anxiolytic Agents in Emergency Medical Care

Zach, a junior in high school, is actively engaged in research opportunities and the Model United Nations. In addition, he volunteers with the American Red Cross as the Youth Council President of his regional chapter. Zach gained the inspiration for this proposal while riding as an EMT on his town's first aid squad. In his spare time he enjoys singing in his friends' rock band,



skiing, and using Adobe Photoshop. Zach aspires to study mechanical engineering or neuroscience in college. In the immediate future, Zach will continue his research with an electroencephalographic human subject experiment based on this proposal.

Luke Andraka Home-Grown Project Category

North County High School, Glen Burnie, MD

Electrochemical Remediation of Acid Mine Drainage

Luke Andraka is a sophomore in his school's STEM magnet program where he is on the math, engineering and varsity lacrosse teams. He grew up kayaking and rafting on the rivers of West Virginia where he first came in contact with the orange water of acid mine drainage. He has worked with local conservation groups to study and mitigate this problem and studied the use of limestone aggregates and an electrochemical process to raise the affected streams' pH. Along the way, he learned about the history of the Cheat River, took courses



through CTY, became a stream monitor for West Virginia and presented his findings and received prizes at Intel ISEF, SSP's national science fair, ISWEEEP, and INESPO in Holland.

Christie Wang Lab Project Category

Roslyn High School, Roslyn, New York

A Novel Role of Cold Shock Protein in Mediating Hypoxia-Induced Inflammation in Microglia: Implications in Alzheimer's Disease

Christie Wang is a 16-year-old student interested in biology, history and dancing. Her desire to help others is shown through her dream to help discover a cure for the "incurable" Alzheimer's disease. Her current study investigates the effect of cold-induced RNA-binding protein on neural inflammation and its connection to Alzheimer's disease. In addition to



research, she volunteers at a hospital and her church and fundraises for charities. She has also been passionate about dance since she was four years old. She attends local dance competitions and danced with the Macy's Great American Marching Band in the Macy's Thanksgiving Parade.

Chevron

careers.chevron.com

Chevron Corporation, incorporated in 1926, manages its investments in subsidiaries and affiliates, and provides administrative, financial, management and technology support to United States and international subsidiaries that engage in fully integrated petroleum operations, chemicals operations, mining operations, power generation and energy services. Exploration and production (upstream) operations consist of exploring for, developing and producing crude oil and natural gas, and also marketing natural gas. Refining, marketing and transportation (downstream) operations relate to refining crude oil and converting natural gas into finished petroleum products; marketing crude oil and the many products derived from petroleum, and transporting crude oil, natural gas and petroleum products by pipeline, marine vessel, motor equipment and rail car. Chemicals operations include the manufacture and marketing of commodity petrochemicals, plastics for industrial uses, and fuel and lubricant oil additives. The upstream, downstream and chemicals activities of the Company are widely dispersed geographically, with operations in North America, South America, Europe, Africa, the Middle East, Asia and Australia.

Thomson Reuters

careers.thomsonreuters.com

Thomson Reuters Corporation is a provider of information for the world's businesses and professionals. The Company is organized in two divisions: Markets and Professional. The Markets division consists of financial and media businesses. The Markets division serves financial services and corporate professionals globally, with Reuters Media serving professional and consumer media market. The Markets division delivers critical information, supporting technology and infrastructure to a diverse set of customers. The Markets division consists of Sales & Trading, Investment & Advisory, Enterprise and Media businesses. The Professional division consists of the Company's businesses in the Legal, Tax & Accounting, and Healthcare & Science sectors. The Company's corporate headquarters are located in New York, with major operations in the United Kingdom, India, and Eagan, Minnesota.

Index

2.009 Green Team 17

23andMe 8 Adobe 12 Afterparty 0, 7 Akamai 8 Alam, Latif 17 Andraka, Luke 21

AT&T 12

Audio...Tesla Coil 18 Aurora Flight Sciences 15

Azure Dynamics 12 Barber, Jessica 17 Blossom Coffee 16 Boeing 8

Bronze Sponsors 12-14

Cardigo 16 Chevron 22 Checklist O Christensen, Tyler 18

Circle Twelve, Inc. 15

Cisco 9 Cooliris 9 Dropbox 5

Electric Vehicle Team 19 El Wire Suit 18

FVT 19 Facebook 5

Facebook Hack-a-thon 0, 5

Forever Bold 16 Formula SAE 19 Foursquare 12 Fox, Nathaniel 16 Franklin, Charles 18 Fremont, Daniel 17 General Flectric 13 Gold Sponsors 5-7

Google 13

Guan, Charles Z. 18 Hack-a-thon 0, 5

hiFlii 17

IDEAS/MIT Global Challenge 19 Prepr Foundation 15

Interactive Intelligence 9 Kuempel, Jeremy 16

LeafLabs 17

Leow, Sean 17

Leveraged Freedom Chair 19 Lincoln Laboratory 14

LiquidPiston 15 Lockheed Martin 6

Lo, Michael 16

Lopez-Pineda, Andres 17

Mangal, Nitin 17 Manifold Studios 17

MathWorks 6 McIntyre, Robert 16

Mendes Levetin, Hanna 17

Meso Scale 10 Meyer, Andrew 17 Microsoft 7

MIT Electric Vehicle Team 19 MIT Global Challenge 19

MIT Mobility Lab 19 MIT Motorsports 19

MIT Program Sponsor 14 MIT Solar Electric Vehicle Team TechFair Afterparty 0, 7

19

MIT Student Exhibitors 16 MIT Student Groups 19 MIT Student Projects 18

MIT Student Startups 17

Mozilla 10

the Musical Wearable 18

NAVAIR 13

Non-Profit Sponsor 14 O'Malley, Luke 18 Obropta, Edward 17

OPNET Technologies Inc. 13

Oracle 4 Palantir 7 Passport 25 Platinum Sponsor 4 Porter, Zach 21

Puranmalka, Keshav 17 REAL Software Systems 14

Rensa 17

Rossmann, Jeremy 17 Rustagi, Kevin 16 Sana Mobile 17 Schlumberger 10

SEVT 19

Shapiro, Drew 17 Siclait, Phillippe 17 Silver Sponsors 8-11

Solar Electric Vehicle Team 19

Sponsors 4-15, 22 Startup Sponsors 15 Stickers 25

Student Exhibitors 16-19 Student Groups 19 Student Projects 18 Student Startups 16-17

Stuff Charles Made 18 Synaptics 11 Tap 'n Tap 15

Team 3

TechFair Schedule back cover TechFair Sponsors 4-15, 22

TechFair Team 3

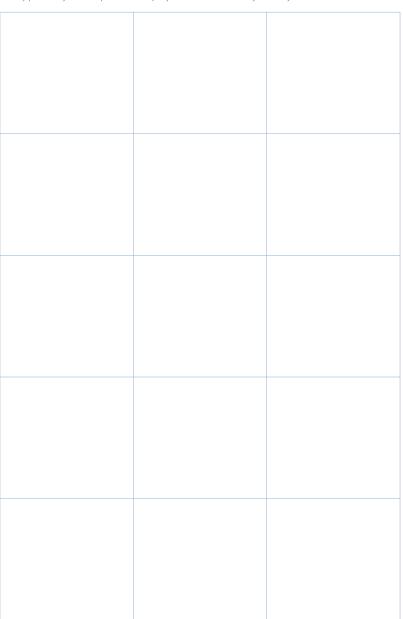
TechTalks Sticker Passport 25 THINK Competition 20-22 THINK Semifinalists 20 THINK Sponsors 22 THINK Winners 21 Thomson Reuters 22 To-Do List O

UPOP 14

Volkswagen ERL 14 WALZ Group 11 Wang, Christie 21 Welcome 2 WiiBook 18

TechTalks Sticker Passport

Check out the TechTalks schedule on the insert page! Collect stickers after each TechTalk for the opportunity to win prizes -- stop by the exit booth on your way out.



TechFair 2011 Schedule

Hack-a-thon

TechFair

Banquet

Afterparty

1/30 10:00 PM - 1/31 8:00 AM 32-082 (Stata TEAL room)

1/31 10:00 AM - 3:30 PM Rockwell Cage

1/31 6:00 - 8:30 PM Hyatt Regency Charles View Ballroom

1/31 9:00 - 11:00 PM E15 (Old Media Lab) Lower Atrium

