# X F A I R 2016

MIT CAREER FAIR & TECH EXPO



# SCHEDULE OF EVENTS

FEBRUARY 1, 2016

## 10AM - 4PM

Rockwell Cage, MIT Zesiger Center

# **xFair**

100+ companies from a wide variety of industries and 50+ student projects. The latest and greatest in industry tech, startups, and student talent.

# 6PM - 8PM

Marriott Hotel

# **Banquet**

Invite only. Dine and network with recruiters and industry specialists from our selected sponsors.

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# **WELCOME**

Welcome to the second annual xFair! As the organizing board, we've put a lot of thought into selecting the most exciting and compelling companies and technologies today. More than 100 companies and 50 student project teams have brought a truly impressive array of demos and displays for you to explore.

Organizing an event as large and exciting as this year's fair wouldn't be possible without the support of our sponsors. We'd like to thank them for making this event possible and for working hard to bring interactive displays – we hope they lead to engaging conversations and give students a glimpse of what it might be like to work at their companies.

One of our goals is to connect students with employers, but our vision has always been greater than that. We're excited to showcase dozens of student exhibitors amongst companies, demonstrating some of the innovation that MIT has to offer. We hope that this year's xFair will be a testament to the incredible wealth of ideas that can arise when such minds interact with equally outstanding institutions.

Cheers,

TechX & Tau Beta Pi Executive Boards '15-16

# XFAIR PLANNING BOARD

xFair is a completely MIT student-run event driven by students from all over campus. xFair is the joint work of two MIT student organizations, TechX and Tau Beta Pi. Executive members of both groups came together to form the xFair planning board, along with their respective committee members.

Sterling Watson '15 Jason Ma '17 Jennifer Yu '17 TBP President
TechX Managing Director
TechX Associate Manager

## Marketing

Larry Zhang '18 – TechX Teresa Lin '17 – TBP

## DevOps

Jack Serrino '18 – TechX

## Corporate Relations

Sina Booeshaghi '17 – TechX Melissa Kreider '16 – TBP

## Logistics

Margaret Tian '18 – TechX Lauren Liou '16 – TBP

## ProjX

Benjamin Reynolds '17 – TechX

# **PROJX**

**xFair aims to serve as a technology exposition for both companies and student projects.** TechX created a ProjX committee four years ago to highlight innovation and talent found right here at MIT.

The ingenuity available at MIT is on full display at xFair – from individual students and student groups to on-campus labs and full-fledged startups.

Last fall, students were able to apply to the ProjX funding program, which allowed students to receive up to \$500 to help with their project. We are pleased that this year we were able to fund 53 student projects, and we hope to see this number continue to rise. We've put thousands of dollars into student projects, enabling dozens of dorm-room projects and enterprises. All we ask is that they come show it off at xFair.

If you want to see more from the student exhibitors, their projects are located throughout the fair, as well as in the open floor space at the fair's entrance in Rockwell. For more information about the projects displayed, refer to page 33.

# **COMPANY INDEX**

#### **Platinum**

Oracle

# Gold

A9 IDEXX Labs Schlumberger
Ab Initio Jane Street Snapchat
Akamai JetBrains Two Sigma
Apple Microsoft Yelp

Capital One Palantir

DIRECTV PlayStation Network

# Silver

ALICE Technologies Facebook Nutanix

Amazon Factual Rethink Robotics
Amplitude Fitbit Sandia National Labs
AthenaHealth Funkitron Second Spectrum

Bloomberg Intel Tessella

Brightcove IXL Learning Texas Instruments

Citadel Lyft WhatsApp DoorDash Medtronic Yahoo

EnerNOC Meraki Exponent Monster

## Bronze

3Red Applied Predictive BuildZoom
Accenture Technologies Castlight Health
Alcoa Asana D.E. Shaw Research

Analog Devices Aurora Flight Sciences DAQRI
AppDynamics Blue Apron Datto
Applied BioMath Bosch Dexcom

Applied Materials Boston Scientific Doosan Fuel Cell America

# **COMPANY INDEX**

#### **Bronze**

Editshare

Flux

Formlabs

Founders Wanted

Gamechange Racking

GEL Program

Google Indeed

Intentional Software

iRobot

JetSmarter

Kayak Leaflabs

Lockheed Martin

Locus Analytics

Mathworks Medidata Solutions

MicroStrategy

MIT Lincoln Lab

# Startups

Analytical Flavor Systems

i2i

Kensho

MITRE

Nest Labs

New York Times

nfrastructure

Nomura

Novartis

Olympus

Orbital ATK

Piazza

PicnicHealth

Seven Bridge Genomics

Smarking

Splunk Synaptics

Ultimate Software

VMWare

Voxel8

W.L. Gore

Wolverine Trading

MarkForged New Context

Spyce

# **COMPANIES: PLATINUM**



#### **ORACLE**

http://www.oracle.com/college | 2, 6, 8, 18

Oracle offers a comprehensive and fully integrated stack of cloud applications, platform services, and engineered systems. Oracle is the world's most complete, open, and integrated business software and hardware systems company. Whether you want to take on tough tech challenges in Big Data, cloud computing, security analytics, engineered systems, or something else entirely, you will work with the most advanced technology and alongside people who are as bright, driven and innovative as you are.

# COMPANIES: GOLD

#### **A9**

#### http://a9.com | 6

A9.com, an Amazon company, creates powerful, customer-focused search and advertising solutions and technologies. At A9, you'll experience the benefits of working in a dynamic, entrepreneurial environment, while leveraging the resources of Amazon.com (AMZN), one of the world's leading internet companies. We provide a highly customer-centric, team-oriented environment in our offices located in Palo Alto, California.

## Ab Initio

### http://abinitio.com | 6

Ab Initio Software is a general purpose data processing platform for enterprise-scale, mission-critical applications such as batch and real-time processing for data warehousing, operational systems, transactional systems and analytics. Ab Initio solves the problems of scalability, development time, performance, metadata management, and integration at the world's largest companies.

## Akamai

#### http://akamai.com | 6

Akamai is the global leader in Content Delivery Network (CDN) services, making the Internet fast, reliable and secure for its customers. The company's advanced web performance, mobile performance, cloud security and media delivery solutions are revolutionizing how businesses optimize consumer, enterprise and entertainment experiences for any device, anywhere.

# Apple

# http://apple.com/jobs | 2, 3, 6

Apple is a place where extraordinary people gather to do their best work. Our community is made up of every kind of individual: artists and designers, engineers and scientists, thinkers and doers. Together we create things and experiences people once couldn't have imagined – and now can't imagine living without. So if you're excited by the idea of making a real impact, a career with Apple might be your dream job. Just be ready to dream big.

# Capital One

#### http://campus.capitalone.com | 6, 14

At Capital One, we think big and do big things. We were the 1st company to develop and offer mass customization and personalization of credit card products, and have been innovating relentlessly ever since. Today, we are a high-tech company, a scientific lab, and a nationally recognized brand all in one. We are a passionate and entrepreneurial team with heart – a team that embraces bold ideas, fosters collaboration, and delivers world-class products impacting over 65 million customer accounts.

#### DIRFCTV

#### http://jobsatdirectv.com/campus-programs | 6

DIRECTV, now part of the AT&T family, offers the opportunity to work with the most cutting edge technology and bring the highest value in entertainment to the homes of your friends and family. We are seeking passionate students who can't stop watching sports, TV, movies, and news. We want technology-obsessed students who are excited to innovate and want to compete with the ever-changing tech world.

# **IDEXX Labs**

### http://idexx.com | 2, 3, 5, 6, 7, 10, 18, 20

IDEXX Laboratories, Inc. is a leader in pet healthcare innovation, serving practicing veterinarians around the world with a broad range of diagnostic and information technology-based products and services. IDEXX products enhance the ability of veterinarians to provide advanced medical care, improve staff efficiency and build more economically successful practices. IDEXX is also a leader in providing livestock and poultry diagnostic tests and tests for the quality and safety of water and milk.

# Jane Street

# http://janestreet.com/ | all courses

Jane Street is a quantitative trading firm that uses innovative technology, a scientific approach, and a deep understanding of markets to guide our business. The markets change rapidly, and we need to change faster still. Every day, we come to work with new problems to solve, new systems to build and new theories to test. We're always looking for people to join us and help come up with that next great idea.

# **JetBrains**

#### http://jetbrains.com | 6, 18

At JetBrains, we have a passion for making people more productive through smarter software. Today JetBrains makes some of the most intelligent and powerful IDEs on the market. Our products are used by millions of developers worldwide, and you've probably heard of some of them: IntelliJ IDEA for Java, enterprise and web development; ReSharper for .NET; PyCharm for Python; CLion for C++ as well as many others. We are also the creators of Kotlin, a new JVM programming language.

#### Microsoft

#### http://microsoft.com/university | 3, 6

No matter what your passion is, you'll find it at Microsoft. Imagine the opportunities you'll have in a company with 120,000 employees in more than 100 countries, working on hundreds of products – spanning games, phones, developer tools, business solutions and operating systems. 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.

## **Palantir**

#### http://palantir.com | 6, 8, 18

We're focused on creating the world's best user experience for working with data, one that empowers people to ask and answer complex questions without requiring them to master querying languages, statistical modeling, or the command line. To achieve this, we build platforms for integrating, managing, and securing data on top of which we layer applications for fully interactive human-driven, machine-assisted analysis.

# PlayStation Network

## http://playstationnetwork.com/careers | 6

Sony Network Entertainment International LLC (SNEI) founded in April 2010, drives the vision, strategy and execution for PlayStation Network, to offer consumers compelling, connected entertainment experiences encompassing games, TV, video and music. Through PlayStation Network, SNEI delivers a wide range of exciting network service offerings including PlayStation Store, PlayStation Plus, PlayStation Vue, PlayStation Music, PlayStation Video and more.

# Schlumberger

## http://careers.slb.com | 1, 2, 6, 10, 16

Schlumberger is the world's leading supplier of technology, integrated project management and information solutions to customers working in the oil and gas industry worldwide. Employing more than 115,000 people representing over 140 nationalities and working in approximately 85 countries, Schlumberger provides the industry's widest range of products and services from exploration through production.

# **Snapchat**

# http://snapchat.com/jobs | 6

People love Snapchat because it's the best way to talk to your friends in fun, creative ways, and watch curated, made-for-mobile content – about what's happening across the world, in your backyard, or from top brands.

# Two Sigma

#### http://twosigma.com | 6, 8, 18

At Two Sigma we find connections in all the world's data. These insights guide investment strategies that support retirements, fund research, advance education and benefit philanthropic initiatives. So, if harnessing the power of math, data and technology to help people is something that excites you, let's connect.

# Yelp

### http://yelp.com/careers | 6

Yelp connects people with great local businesses. We work hard, throw Nerf darts even harder and have fun. Our engineers come from diverse technical backgrounds and value digital craftsmanship, open-source, and creative problem solving. We push multiple times daily and run hackathons quarterly. Python rules and we strive to make our code beautiful and our design clean. If you think you're Yelployee material we'd love to hear from you!

# **COMPANIES: SILVER**

# **ALICE Technologies**

## http://alicetechnologies.com | 6, 15

ALICE - ArtificiaL Intelligence Construction Engineering is the first system that automatically generates thousands of different ways to build a given project, thus reducing construction duration by 47% and costs by 31% (think of the implications for the \$7.3 trillion construction industry). Our technology was developed and patented through Stanford PhD research and very recently we raised \$2.65M from top SV investors.

https://vimeo.com/147047637 Video password: aiforconstruction

#### **Amazon**

#### http://amazon.com | 3, 6, 12, 16

Amazon's mission is to be Earth's most customer-centric company where people can find and discover anything they want to buy online. The Prime Air Team will be on campus, talking about Amazon's future delivery system designed to safely get packages to customers in 30 minutes or less using small unmanned aerial vehicles.

# **Amplitude**

#### http://amplitude.com | 11

We help companies create better app experiences by providing powerful behavioral analytics that helps teams understand the user behaviors that drive engagement and growth. Our customers, who include apps like Yik Yak, QuizUp, DoorDash, and Instacart, rely on Amplitude data to understand their users. Founded in 2012, Amplitude is proud to be a YCombinator company & is backed by top-tier investors like Benchmark.

#### AthenaHealth

#### http://athenahealth.com/careers

athenahealth is connecting care nationwide with cloud-based services and mobile tools for medical groups and health systems. With a network of more than 59,000 providers, athenahealth is helping providers thrive through change and focus on patient care. The company was named Best in KLAS #1 Overall Software Vendor for 2013.

# Bloomberg

#### http://bloomberg.com/rd | 6

Bloomberg, the global business and financial information leader, gives influential decision makers a critical edge by connecting them to a dynamic network of information, people and ideas. Bloomberg's software engineers are responsible for creating the world's premiere source for real-time and historical market data and analytics. Engineers are given the responsibility to define, architect, build, and deploy complete systems that anticipate and fulfill our clients' needs.

# Brightcove

#### http://brightcove.com | 2, 6, 14

Brightcove Inc. is a leading global provider of powerful cloud solutions for delivering and monetizing video across connected devices. It has more than 5,500 customers in over 70 countries. Working at Brightcove Inc gives you the chance to reshape how digital media is published and consumed worldwide, while you develop your skills, grow your career, work in a great culture with lots of talented people and have fun!

### Citadel

## http://citadel.com | 6, 8, 14, 16, 20, 22

Citadel is a worldwide leader in finance that uses next-generation technology and alpha-driven strategies to transform the global economy. We tackle some of the toughest problems in the industry by pushing ourselves to be the best again and again. It's demanding work for the brightest minds, but we wouldn't have it any other way. Here, great ideas can come from anyone. Everyone. You.

## DoorDash

#### http://doordash.com | 6

DoorDash is an on-demand delivery service that connects customers with local businesses. Through the DoorDash marketplace, people can purchase goods from local merchants and have them delivered in less than 45 minutes - thanks to our revolutionary logistics technology. Founded in 2013 in a dorm room at Stanford, DoorDash began with a mission to empower local economies in a connected world. By building the on-demand delivery infrastructure for local cities, we're bringing communities closer.

## **EnerNOC**

#### http://enernoc.com | 1, 2, 3, 6, 8, 14, 18

EnerNOC is a leading provider of cloud-based energy intelligence software (EIS) and services to thousands of enterprise customers and utilities globally. EnerNOC's EIS solutions for enterprise customers improve energy productivity by optimizing how they buy, how much they use, and when they use energy. EnerNOC's EIS solutions for utilities help maximize customer engagement and the value of demand-side resources, including demand response and energy efficiency.

# Exponent

#### http://exponent.com | all courses

Our multidisciplinary team of scientists, physicians, engineers, and regulatory consultants will perform either in-depth scientific research and analysis, or very rapid-response evaluations, to provide our clients with the critical information that both day-to-day and strategic decisions can require.

## Facebook

## http://facebook.com | 2, 6

Founded in 2004, Facebook's mission is to give people the power to share and make the world more open and connected. People use Facebook to stay connected with friends and family, to discover what's going on in the world, and to share and express what matters to them.

#### **Factual**

# http://factual.com | 6, 8, 18, 24-2

Today, Factual focuses on location data – data about places across the globe, and data which reveals a deeper understanding of people based on their geographic behavior about where places are and how to better understand people based on their geographic behavior. We have APIs, mobile drivers, and on-premise implementations to make the data easy to use and integrate. Factual has just raised \$35 million in funding for our Series B Round.

## **Fitbit**

#### http://fitbit.com | 6

We're a passionate team dedicated to health & fitness who are building products that help transform people's lives. While health can be serious business, we feel it doesn't have to be. We believe you're more likely to reach your goals if you're encouraged to have fun, smile, and feel empowered along the way.

## **Funkitron**

#### http://funkitron.com | 6, CMS

Funkitron, Inc. is a mobile casual game company founded by game industry veteran David Walls in 2001. Funkitron is known for the top grossing, totally original, super addictive game – Cascade (http://appstore.com/cascade) – based on the patent pending Match3Slots game design. Funkitron also has the #1 Paid Casino game – Slingo Supreme.

#### Intel

## http://intel.com/jobs/usa/students | 2, 3, 5, 6, 8, 10, 18

At Intel, our vision is to create and extend computing technology to connect and enrich the lives of every person on earth. For interns or college graduates like you, that means having access to amazing career-building opportunities with a global impact. There's more inside at Intel. Come explore all we have to offer

# IXL Learning

## http://ixl.com/company | 5, 6, 7, 8, 12, 14, 17, 18, 21F, 21H, 24-2

IXL Learning is an educational technology company like no other. We're passionate about creating the best educational technology possible by developing innovative first-of-their-kind products. We look beyond the specific problems of today to see the bigger picture, with the ultimate goal of improving learning itself. People count on us to make learning as effective as it can be, and we are deeply committed to solving the real-world challenges faced by students and teachers around the planet.

# Lyft

#### http://lyft.com | 6

Lyft's purpose is to reconnect people and communities through better transportation. We strive to achieve a low cost, efficient, and available ride for everyone, while promoting a social and outgoing environment.

#### Medtronic

# http://medtronic.com | 2, 3, 6, 20

As a global leader in medical technology, services and solutions, Medtronic improves the health and lives of millions of people annually. Our clinical, therapeutic and economic expertise can help address complex challenges – rising costs, aging populations, the burden of chronic disease – faced by healthcare systems today. We're committed to partnering in new ways and developing powerful solutions that deliver better patient outcomes. Join us in our commitment to take healthcare Further, Together.

## Meraki

#### http://meraki.com | 6

Cisco Meraki is an industry leader in cloud controlled networking, continuing to invent truly plug and play large scale networks. Meraki produces a full line of networking products including access points, switches and security appliances that allow customers to easily configure and manage networks of all sizes. Everyday over 150,000 active networks in over 150 countries around the world rely on Meraki for their network infrastructure.

# Monster

http://monster.com

#### **Nutanix**

## http://nutanix.com | 8

Nutanix delivers invisible infrastructure for next-generation enterprise computing, elevating IT to focus on the applications and services that power their business. The company's software-driven Xtreme Computing Platform natively converges compute, virtualization and storage into a single solution to drive simplicity in the datacenter. Using Nutanix, customers benefit from predictable performance, linear scalability and cloud-like infrastructure consumption.

## **Rethink Robotics**

#### http://rethinkrobotics.com | 2, 3, 6, 9, 18

Rethink Robotics is transforming the way manufacturing gets done, with smart, collaborative robots able to automate the 90 percent of tasks that have been beyond the reach of traditional automation. Its Baxter and Sawyer robots, powered by the Intera software platform, adapt to real-world variability, can change applications quickly and perform tasks like people do. The result: manufacturers of all sizes and industries get the flexible automation solution they need to be successful.

#### Sandia National Labs

### http://sandia.gov/careers | 2, 3, 5, 6, 8, 10, 16, 18, 22

Sandia National Laboratories is the nation's premier science and engineering lab for national security and technology innovation. We are a world-class team of scientists, engineers, technologists, post docs, and visiting researchers all focused on cutting-edge technology, ranging from homeland defense, global security, biotechnology, and environmental preservation to energy and combustion research, computer security, and nuclear defense.

# Second Spectrum

http://secondspectrum.com

## Tessella

#### http://jobs.tessella.com | 3, 5, 6, 7, 8, 10, 12, 16, 18, 20

Tessella is a global analytics and software services consultancy. We combine our problem solving abilities with our technical and domain expertise to help our clients understand and solve the complex challenges they face. We offer exciting careers working on challenging projects at the forefront of science and technology. All of our staff are high achieving problem solvers, over half of whom have PhDs. They create, develop and deliver solutions and services that make a difference to the world.

# **Texas Instruments**

### http://careers.ti.com | 2, 3, 6, 8, 10

Texas Instruments products power the world. As one of the world's largest global leaders in analog and digital semiconductor design and manufacturing, TI provides the technologies that fuel smartphones, digital cameras, medical equipment, motor controls, ultra thin computing devices, health and fitness products and much more. Chances are, many pieces of technology that you touch every day things you don't even think about, but can't imagine living without do what they do because of TI products.

# WhatsApp

http://whatsapp.com

# Yahoo

#### http://careers.yahoo.com/us | 6

Yahoo is a guide to digital information, yours and the world's. By creating highly personalized experiences for our users, we keep people connected to what matters most to them, across devices and around the world. In turn, we create value for advertisers by connecting them with the audiences that build their businesses.

# **COMPANIES: BRONZE**

#### 3Red

#### http://3redgroup.com | 1, 6, 18

3Red is a prop trading start-up with offices in Chicago and New York. We leverage technology and math to implement competitive trading strategies while managing risk and responding to dynamic market conditions. What sets us apart from other businesses is that adding value is based on the work you do and not your ability to climb the corporate political ladder.

#### Accenture

#### http://accenture.com/careers | 1, 2, 3, 5, 6, 7, 8, 9, 10, 14, 15, 16, 17, 18, 20, 22

Accenture is a global management consulting, technology services and outsourcing company, with more than 336,000 employees worldwide. Accenture combines unparalleled experience, comprehensive capabilities across all industries and business functions, and extensive research on the world's most successful companies.

## Alcoa

#### http://alcoa.com | 2, 3, 6, 10, 16

Alcoa is a global leader in lightweight metals technology, engineering and manufacturing. Alcoa innovates multi-material solutions that advance our world. Our technologies enhance transportation, from automotive and commercial transport to air and space travel, and improve industrial and consumer electronics products.

# **Analog Devices**

## http://analog.com | 3, 6, 10

Analog Devices defines innovation and excellence in signal processing. ADI's analog, mixed-signal, and digital signal processing (DSP) integrated circuits (IC) play a fundamental role in converting, conditioning, and processing real-world phenomena such as light, sound, temperature, motion, and pressure into electrical signals to be used in a wide array of electronic equipment.

# **AppDynamics**

#### http://appdynamics.com | 6

AppDynamics, based in San Francisco, is an enterprise tech company, comprised of smart, motivated, passionate & curious individuals who play hard, work hard, & love cliches. Our software instruments applications to measure every user's experience, from the browser, to distributed networks of servers, to databases and cloud services. We also provide analytics that highlight the value of performance problems so clients can act with certainty on issues that are affecting their businesses most.

# **Applied BioMath**

#### http://appliedbiomath.com | 5, 6, 7, 8, 9, 10, 18, 20

Applied BioMath helps biotechs and pharma reduce late stage attrition and accelerate best-in-class drugs using quantitative methodologies. Leveraging biology, HPC, proprietary technology and experience in pharma, Applied BioMath delivers biological insights proven to shorten project timelines, lower costs, and develop BIC drugs. Their approach, when validated in the clinic, was 10x more accurate than traditional methodologies.

# **Applied Materials**

#### http://appliedmaterials.com | 2, 3, 5, 6, 8

Applied Materials, Inc. is the global leader in providing innovative equipment, services and software to enable the manufacture of advanced semiconductor, flat panel display and solar photovoltaic products. Our technologies help make innovations like smartphones, flat screen TVs and solar panels more affordable and accessible to consumers and businesses around the world.

# **Applied Predictive Technologies**

# http://joinapt.com

APT is a leading cloud-based analytics software company that enables organizations to rapidly measure cause-and-effect relationships between business initiatives and outcomes. Our intuitive Test & Learn software utilizes sophisticated algorithms to analyze large amounts of data, enabling business leaders to conduct experiments and make optimal decisions at scale. APT's clients include Walmart, Starbucks, Coca-Cola, Victoria's Secret, Hilton Hotels, SUBWAY, TD Bank, T-Mobile, and others.

#### Asana

#### http://asana.com/jobs/university | 6

Asana was started with a mission: to help humanity thrive by enabling all teams to work together effortlessly. It's a team productivity tool that provides total clarity, energized focus, and frictionless collaboration, so that in every moment, each person knows what they should be doing and why they're doing it.

# **Aurora Flight Sciences**

## http://aurora.aero/careers | 2, 3, 6, 16

Aurora Flight Sciences is not your typical aerospace company. Yes, we make drones, including one called Orion that shattered the world flight duration record in late 2014. But at the core of our company's DNA is a commitment to the science of autonomous flight, whether that means a fully autonomous drone or a program that is breaking new ground in the interface between man and machine as relates to flight.

# Blue Apron

#### http://blueapron.com

At Blue Apron, our mission is to make incredible home cooking accessible to everyone – from the novice cook just getting started to the experienced chef. Each week we send hundreds of thousands of customers all the pre-measured and perfectly proportioned ingredients they need to prepare delicious and healthy meals at home. We introduce our members to new ingredients, flavors, and cooking techniques with seasonally inspired recipes that are always delicious, fun and easy to prepare.

## Bosch

http://bosch-home.com/us

## **Boston Scientific**

## http://bostonscientific.com/careers | 2, 3, 6, 10, 18, 20

For more than 25 years, Boston Scientific has advanced the practice of less-invasive medicine by providing a broad and deep portfolio of innovative products, technologies and services across a wide range of medical specialties. These less invasive medical technologies provide alternatives to major surgery and other medical procedures that are typically traumatic to the body.

# BuildZoom

#### http://buildzoom.com | 6, 14, 15, 18

BuildZoom makes it easy to find construction contractors you can trust. We use the world's largest collection of construction data to objectively rate and rank contractors, making it easy for homeowners, small business owners, and construction managers to find the best contractor for any project. We just raised \$11M in funding from Y Combinator, Peter Thiel, and Formation 8, and we're hiring like crazy – come check us out!

# Castlight Health

#### http://castlighthealth.com | 6

Castlight Health, Inc. is a pioneer of the Enterprise Healthcare Cloud. Founded in 2008, San Francisco-based Castlight makes healthcare data actionable, empowering our enterprise customers to gain control over their healthcare spending and transforming how companies and employees engage in healthcare. \$300 billion is wasted in the U.S. every year in avoidable health care costs. With Castlight, technology-enabled benefit designs provide meaningful information to users and their families.

### D.E. Shaw Research

## http://deshawresearch.com | 2, 3, 5, 6, 7, 8, 10, 18, 20

D. E. Shaw Research is an independent research laboratory that conducts basic scientific research in the field of computational biochemistry. Our group is currently focusing on molecular simulations involving proteins and other biological macromolecules of potential interest from both a scientific and a pharmaceutical perspective. Members of the lab include computational chemists and biologists, computer scientists and applied mathematicians, and computer architects and engineers.

# **DAQRI**

# http://daqri.com

DAQRI is changing the future of work through our Augmented Reality products and technology. With our innovative hardware and software we make wearable human machine interface devices for the enterprise space. Our flagship product the, DAQRI Smart Helmet, combines the most sophisticated display and sensor hardware with next-generation computer vision. We are headquartered in Los Angeles and also have offices in Sunnyvale, Seattle, Dublin, and Hastings.

#### **Datto**

#### http://datto.com | 6

Datto is one of the fastest growing Tech companies in Connecticut, with offices globally including Boston. We tackle problems to safely secure storage of over 160+ PB of data on thousands of purpose built Linux servers. Work in an agile environment, known for using collaboration tools like GitHub and JIRA. Leverage Open Source tools like Docker, OpenStack, MySQL, Cassandra, Git, and ZFS. We create detailed responsive user interfaces with PHP and JavaScript.

#### Dexcom

# http://dexcom.com | 2, 3, 5, 6, 10, 14, 15, 18

DexCom, Inc., a medical device company, focuses on the design, development, and commercialization of continuous glucose monitoring systems. The company offers its systems for ambulatory use by people with diabetes; and for use by healthcare providers in the hospital for the treatment of patients with and without diabetes. DexCom markets its products directly to endocrinologists, physicians, and diabetes educators. The company was founded in 1999 and is headquartered in San Diego, California.

## Doosan Fuel Cell America

## http://doosanfuelcell.com | 2, 3

Fuel cells generate electricity and heat through an electrochemical process with no combustion or moving parts. This simplicity of operation yields high-efficiency, ultra-low emissions and exceptional reliability. Doosan manufactures and markets high-performance fuel cell solutions that provide combined cooling, heat and power (CCHP).

## EditShare

## http://editshare.com | 6, 8, 18

EditShare is a leading developer of networked shared storage and tapeless end-to-end workflow solutions for the television and film industry. Our products include video capture and playout servers, high-performance central shared storage, archiving and backup software, database-backed media asset management, and even the world's first 3-platform (Windows/OS X/Linux) professional non-linear video editing application.

## Flux

#### http://flux.io | 1, 2, 3, 4, 6, 8, 18

Flux's mission is to help meet the world's demand for durable, sustainable buildings by applying principles from software engineering, scalable computing, and open platforms. Founded in 2012 and headquartered in San Francisco, Flux is funded by DFJ, Google Ventures, Andreessen Horowitz, Temasek Holdings, Brick & Mortar Ventures, Obvious Ventures, Far East Ventures, and Borealis Ventures.

### **Formlabs**

## http://formlabs.com | 2, 3, 6

We are a passionate team of engineers, designers, and problem-solvers. Started out of MIT in 2011, Formlabs is committed to bringing innovative and sophisticated fabrication tools into the creative hands of designers, engineers, and artists around the world. An unprecedented convergence of design, performance, and accessibility, the Form 2 brings professional-quality 3D printing to a broader audience. We're excited about creating powerful tools that change the way we work and live.

### **Founders Wanted**

#### http://founderswanted.com | 1, 2, 3, 6, 8, 15, 18, 21W

Founders Wanted matches prospective company founders with patented product ideas. Our curated patent portfolio is carefully chosen and consists only of patents that protect ideas around which a growth business can be built. In addition to this intellectual property, we also supply seed capital to the enterprise in amounts ranging from \$20,000 to \$50,000.

# GameChange Racking

## http://gamechangeracking.com | 1, 2, 3, 6

GameChange Racking is changing the world by making solar energy affordable. We are one of the fastest growing, most dynamic companies in the booming solar industry. We have the best solar products in fixed tilt and solar trackers, revolutionizing the industry. Your creativity and ingenuity will directly impact the success of our business, and make a difference worldwide by substantially growing the solar industry.

# **GEL Program**

#### http://gelp.mit.edu | 1, 2, 3, 6, 10, 16, 20, 22

The Gordon Engineering Leadership (GEL) Program is an immersive co-curricular program for juniors and seniors, primarily from the School of Engineering, to supplement their technical knowledge with the communication, teamwork and leadership skills they will need to have an impact and achieve their goals. GEL provides a national model for the development of next-generation technical leaders who are equipped to understand and address significant engineering problems in real-world situations.

# Google

#### http://google.com/careers/students | 6, 8, 18

Google's mission is to organize the world's information and make it universally accessible and useful. While we're committed to building the perfect search engine, our work goes well beyond delivering accurate search results. The spirit of innovation and entrepreneurship that made our company a success right from the start underpins the work we do every day, from constantly pushing the boundaries of our products to researching alternative energies or devising new ways to interact with clients.

## Indeed

## http://indeed.jobs

As the world's #1 job site, Indeed helps millions of job seekers and employers find the right fit.

# Intentional Software

## http://intentional.com | 6

We are creating innovative software that will transform the way groups collaborate to create and share ideas. Our next generation application platform for group productivity is designed for the latest HW technologies and the modern workplace. Our applications will enable you to capture and present ideas regardless of type of content and from a variety of input methods. Coworkers in the same room or across the world can view and collaborate to share ideas at previously unimagined rates!

## iRobot

#### http://irobot.com | 6

Founded in 1990 by Massachusetts Institute of Technology roboticists, iRobot designs and builds some of the world's most important robots. iRobot's home robots are revolutionizing the way people clean – inside and out. More than 14 million home robots have been sold worldwide, with the award-winning iRobot Roomba floor vacuuming robot leading the charge. More than 5,000 of the company's defense & security robots have been delivered to researchers, military and civil defense forces worldwide.

# **JetSmarter**

#### http://jetsmarter.com | 6, 9, 14, 18, 21F

JetSmarter is the company making private air travel accessible through a mobile app that seamlessly connects travelers to private jets at attractive fares worldwide, in real-time. With the world's largest private jet marketplace and unprecedented membership services, JetSmarter is incontestably changing the way people fly.

# Kayak

http://kayak.com

# LeafLabs

#### http://leaflabs.com | 6

We design powerful physical computing devices for control and communication among smart machines (including humans!). We work with scientists, entrepreneurs, artists, and enthusiasts to implement beautiful ideas as quickly and elegantly as possible.

# **Lockheed Martin**

## http://lockheedjobs.com | 2, 3, 6, 8, 16, 18

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. As the foremost Federal IT contractor, Lockheed Martin manages and secures large databases and other IT systems for a diverse set of government agencies.

# **Locus Analytics**

http://locus.org | all courses

#### **MathWorks**

#### http://mathworks.com/company | 2, 6, 16, 20

MathWorks is the leading developer of mathematical computing software for engineers and scientists. Founded in 1984, MathWorks employs over 3000 people in 15 countries, with headquarters in Natick, Massachusetts, U.S.A.

## Medidata Solutions

#### http://mdsol.com

We sit at the intersection of technology and Life Sciences industries, and are at the forefront of providing an advanced clinical development platform for our clients to further improve the accuracy, timeliness and ease of the data collection process. That means better treatments can reach waiting patients sooner. We are publicly traded (MDSO) with over 500 customers, customer retention rates above 99%, and the experience of supporting more than 10,000 clinical trials.

# MicroStrategy

#### http://microstrategy.com | 1, 2, 3, 6, 8, 9, 10, 14, 15, 16, 18, 20, 22

A global leader in business intelligence technology, MicroStrategy provides integrated reporting, analysis, and monitoring software that enables companies to analyze the data stored across their enterprise to make better business decisions. MicroStrategy's business intelligence platform delivers actionable information to business users via e-mail, web, and mobile devices, the format that suits them best – from high-level dashboards, to custom reports, to advanced analysis.

# MIT Lincoln Laboratory

#### http://ll.mit.edu

At MIT Lincoln Laboratory, diverse teams of technical experts develop innovative solutions with real impact on U.S. national security. If you are an agile thinker, excited by the freedom to develop novel ideas and the opportunity to take concepts to the prototype stage, Lincoln Laboratory offers abundant opportunities and resources.

# **MITRE**

http://mitre.org

## **Nest Labs**

#### http://nest.org | 2, 6

Nest's mission is to create a home that's thoughtful - one that takes care of itself and the people inside it. The company focuses on simple, beautiful and delightful hardware, software and services. The Nest Learning Thermostat and Nest Energy Services keep you comfortable and address home energy consumption. The Nest Protect: Smoke + Carbon Monoxide alarm helps keep you safe while Nest Cam keeps an eye on what matters most in your home.

## **New York Times**

# http://nytco.com | 6, 14, 18, CMS

The New York Times Company is a global media organization dedicated to enhancing society by creating, collecting and distributing high-quality news and information. The company includes The New York Times, International New York Times, NYTimes.com, INYT.com and related properties. It is known globally for excellence in its journalism, and innovation in its print and digital storytelling and its business model.

## nfrastructure

## http://nfrastructure.com | 3, 6, 14, 18

nfrastructure partners with the world's most admired brands to design, build, and operate infrastructure and applications for the Internet of Everything (IoE). An insight, execution, and results culture delivers on-time, every-time. nfrastructure offers: world-class engineering talent, on-site technical service in every major North American market, tightly integrated high-availability, low cost remote support and an innovative, proprietary nterprise software suite to manage IoE projects.

#### Nomura

#### http://nomura.com

Nomura is a leading financial services group and the preeminent investment bank with worldwide reach. Nomura provides a broad range of innovative solutions tailored to the specific requirements of individual, institutional, corporate and government clients through an international network in over 30 countries. Based in Tokyo and with regional headquarters in New York, London, and Hong Kong, our combined operation makes us a leader in global investment banking with offices in over 30 countries.

#### **Novartis**

#### http://nibrconnection.com/MITinternships | 6

The Novartis Informatics (NX) organization is seeking energetic software engineering interns at all levels that share our vision that science serves a greater purpose in improving human health. Our interns would get a chance to work in a range of projects from front-end web app development using a plethora of JS libraries to big data distributed computing with Scala and Apache Spark.

# Olympus

# http://olympus-ims.com/en/about-us | 2, 3, 5, 6, 8

Olympus Corporation is an international company operating in industrial, medical and consumer markets, specializing in optics, electronics and precision engineering. We offer an industry-leading portfolio of innovative test, measurement, and imaging instruments, such as remote visual inspection, microscopy and advanced imaging systems, ultrasound, phased array, eddy current, eddy current array, X-ray fluorescence (XRF) and optical metrology.

## **Orbital ATK**

## http://orbitalatk.com | 2, 6

With projected annual revenues of nearly \$4.5 billion, ~12,000 employees, and operations in about 20 states, Orbital ATK is a company on the move. We are the world's leading supplier of solid rocket motors, a leading provider of launch vehicles, satellites and other systems, and the nation's largest manufacturer of ammunition. Orbital ATK Space Systems Group designs, manufactures and operates small and medium-class spacecraft for imaging, exploration and national security space applications.

# Piazza

http://piazza.com

## **PicnicHealth**

http://picnichealth.com

# Seven Bridges Genomics

## http://jobs.sevenbridges.com | all courses

We are scientists, engineers, communicators, and data lovers. We are musicians, homebrewers, yogis, cyclists, and chess players. We are passionate about how genomics and technology can impact and improve human health. And, as part of an innovative startup building the most advanced cloud computing platform for biomedical data analysis – that impact is huge. At Seven Bridges, turn your idea, research, and software into tools used by researchers around the world.

# **Smarking**

http://smarking.net

# Splunk

## http://splunk.com | 6

Splunk was founded to pursue a disruptive new vision: make machine data accessible, usable and valuable to everyone. Machine data is a fast growing and a pervasive part of big data. We focus on the challenges and opportunity of effe tive managing massive amonts of mahine data and roviding a next-generation platform for powerful new applications. Innovation is in our DNA – from technology to the way we do business.

# **Synaptics**

# http://synaptics.com | 3, 6, 8, 18

Synaptics is the pioneer and leader of the human interface revolution, bringing innovative and intuitive user experiences to intelligent devices. Synaptics' broad portfolio of touch, display, and biometrics products is built on the company's rich R&D and supply chain capabilities. With solutions designed for mobile, PC and automotive industries, Synaptics combines ease of use, functionality and aesthetics to enable products that help make our digital lives more productive, secure and enjoyable.

## Ultimate Software

#### http://ultimatesoftware.com/careers-hiring | 6

One of FORTUNE's Best Companies to Work For, Best Workplaces for Women, and Great Workplaces for Millennials, Ultimate Software has a passion for putting people first and a company culture unlike any other. We know success comes from happy employees helping happy customers. Our people develop and deliver UltiPro, an award-winning, cloud-based human capital management (HCM) solution; remain committed to serving our customers; and have made Ultimate one of Forbes' Most Innovative Growth Companies.

#### **VMWare**

#### http://vmware.com | 6

VMware is the leader in cloud infrastructure, business mobility and virtualization software. A pioneer in the use of virtualization and policy-driven automation technologies, VMware simplifies IT complexity across the entire data center to the virtual workplace, empowering customers with solutions in the software-defined data center to hybrid cloud computing and the mobile workspace.

### Voxel8

#### http://voxel8.co | 2, 3, 6

Voxel8 is disrupting the design and manufacture of electronic devices by providing new functional materials for additive manufacturing. We are leveraging over a decade of research from the Lewis Group at Harvard University to bring to market advanced materials that help our industrial partners manufacture high performance, customized products.

## W. L. Gore

## http://gore.com/change-life | 2, 3, 6, 10, 20

Gore is a technology-driven global company built on entrepreneurial innovation, integrity, and teamwork. Our diverse portfolio includes everything from high-performance fabrics and implantable medical devices to industrial manufacturing components and aerospace electronics. Through our product leadership, we've been changing lives and changing industries for more than 50 years.

# **Wolverine Trading**

#### http://wolve.com | 6, 18

Founded in 1994, the Wolverine companies comprise a number of diversified financial institutions specializing in proprietary trading, asset management, order execution services, and technology solutions. We are recognized as a market leader in derivatives valuation, trading, and value-added order execution across global equity, options, and futures markets. With a focus on innovation, achievement, and integrity, we take pride in serving the interests of both our clients and colleagues.

# **COMPANIES: STARTUPS**

# **Analytical Flavor Systems**

http://gastrograph.com

## i2i

# http://i2iengineering.com/#about | 2, 6

As an engineering & technology company, i2i Engineering, an IPSUMM company, focuses on delivering flexible automation solutions to the manufacturing world using a modern and collaborative approach. Our team focuses on partnering with customers to provide technology and solutions that optimize their projects. i2i's flexible automation platform, called IRIS, meets the changing demands of manufacturers everywhere. We also offer engineering services & custom machinery modifications.

#### Kensho

## http://kensho.com

Kensho is pioneering real-time statistical computing systems and scalable analytics architectures – the next-generation of improvements to the global financial system. Backed by Goldman Sachs, Google Ventures and NBC, Kensho was founded out of MIT and Harvard in 2013. Kensho's team is a diverse and spirited group of engineers and scientists who are accomplished analytical thinkers and come from veteran positions at Google, Apple, Facebook, and the United States Federal Reserve.

# MarkForged

## http://markforged.com | 2, 3, 6, 15, 18

Check out how MIT startup MarkForged can 3D print parts that are stronger than metal. The Mark One is the world's first 3D printer that prints carbon fiber, Kevlar, and fiberglass. The Mark One is powered by Eiger: the world's most advanced 3D printing software that lives entirely within the browser.

#### **New Context**

#### http://newcontext.com

New Context is a rapidly growing DevOps and Cyber Security consulting company in the heart of downtown San Francisco. We specialize in Lean Security; an approach that leads organizations to build better software thru hands-on technical and management consulting. We are a group of engineers who live and breath Agile Infrastructure, Systems Automation, Cloud Orchestration, and Information Security. Our teams operate with complete stack awareness of infrastructure, application and security.

# Spyce

# http://spyce.io | 2, 4, 6, 15

Spyce has developed the world's first completely automated restaurant. A Spyce Kitchen cooks and serves delicious meals from fresh ingredients with absolutely no human involvement. Spyce restaurants will revolutionize the fast food industry by operating with extremely low overhead – serving high quality, nutritious meals at fast food prices.

# STUDENT PROJECTS

# Arduino 3D Localization System

Jacob Wachlin, Erik Gest, Jack Erdozain, Nicholas Klugman

A low-cost, easy to use, indoor 3D localization system for use with common micro-controllers such as the Arduino platform.

# Autonomous Indoor Blimp

#### Kevin Kwok

Quadcopters are the rave nowadays, but they're loud and almost never last longer than a few minutes. Blimps on the other hand use no power when hovering and can maneuver silently. Instead of four high-speed deadly spinning blades of death, there's a friendly matte bubbly exterior. This makes blimps the ideal form factor for the vision of an amicable floating spritelike entity that can listen to commands, track and follow objects.

# **Bang Bang Kart**

#### Jonas Whitney

A supercapacitor powered GoKart, designed to be a demonstration of electric power conversion circuits designed from scratch.

## Bar+

# Patrick Insinger

Drink Mixing Refrigerator. Uses MiFare RFID cards for authentication. Integrates with payment services.

# Beercopter

#### Robert Verkuil

A quadcopter able to take off with a one pound mass and be loaded automatically from a modified fridge.

# **Compact Fusion Reactor**

## Maximillian Major

This is an Inertial Electrostatic Confinement Farnsworth Fusor that combines deuterium nuclei into helium. The Fusor produces neutrons and photons as evidence of the occurrence of nuclear fusion.

## **DIY Smartwatch**

#### Andrew Montanez, John La, Andrew Montanez, Michael McGraw

Wearable technology has become a hot topic in the engineering field. Despite their popularity, very few of these wearable devices have open sourced hardware or software, making it difficult for people in the maker community to do their own projects with this technology. For that reason, our project is an open source, DIY smartwatch that streamlines the process of producing novel engineering ideas for wearable platforms. The watch will have certain features built-in such as a clock, an acceleromoter/gyro, a vibration motor for alerts, and a Bluetooth module to read data from your phone like text messages. On top of this, it will have available I/O ports for further customization and development.

## **Electric Longboard**

#### Raphael Chang

An electric longboard with custom electronics.

## Ferro Speaker

#### Tomi Adelusi

Have you ever imagined a new dimension through which you can experience music? The Ferro speaker opens up this dimension using Ferrofluid.

## Fold

#### David Doan, Daniel Zuo

A user-friendly, seamless Bitcoin point of sales (POS) system that is specifically designed for ease of use and integration in any brick-and-mortar store.

## **Graffiti Recording Device**

#### Ionathan Bobrow

A novel way to record graffiti while in progress, capturing the nuance of movement and doing so independent of scale.

## **Green Space Stations and Ham**

#### Nolan O'Brien, Andrew Adams, Charlie Garcia, Nicole Zatorski

Space can seem so far beyond our reach, while in reality it is a phone call away. With a few amateur radio components it is possible to communicate with ISS astronauts, download images off of weather satellites, and talk to people on the other side of the world through orbiting relay satellites. All of these are key points of our groups apocalypse survival strategy.

## Hands-Free Electric Skateboard

#### Rebecca Li

A hands free skateboard, with switches below your feet. Step on, kick up to speed, and the skateboard maintains your speed until you get off. It's a much more streamlined, unintrusive electric vehicle experience than requiring one hand on an RC throttle.

# Highly Efficient Laser Projector Peter Krogen

A laser projector taking advantage of recent advancements in microprocessor technology to eliminate the inefficient linear amplifiers commonly used, and replace them with efficient switch-mode devices to reduce cost and improve performance.

## Holoconference

#### Eswar Anandapadmanaban, Srinivas Kaza, Tom Dudzik

Using three kinects and an oculus rift, we can capture 3d video and render it to be viewed on the Vr headset.

## Hoverboard

#### Max Carlson

While it does not actually hover, this project was designed to fully mimic the physics of a real hoverboard that produces thrust normal to the plane of the board. The board can be tilted about two axes and has a custom motor controller to perform physics calculations and provide independent torque control on each of the two wheels.

## Hoverboard

#### Richard Huizar, Priscilla Agosta, Emma Stavropoulos, Daniel Vignon

We are in the process of making a personal transportation vehicle in which the user would stand on a large drone.

## Infinity Mirror Table

## Melissa Gianello, Andreea Martin

A table with two panes of semi-reflective glass, creating an infinitely deep image between them.

## Interactive Light Table

#### Corey Walsh

This project combines Kinect based hand tracking with projection to create an interactive computing experience.

## Laser Beam Steering

#### Grant Falkenburg

Mirrors are traditionally used to steer beams in laser projectors, but this project uses electromagnetically actuated lenses to steer a laser beam in an X-Y grid. This means that any analog signal can be used to control the position of a laser, making it easy to interface with laptops, phones, or MP3 players. Several applications of the projector will be shown in an interactive demo.

#### Laser Guitar

#### Aya Suzuki, Shirley Lu, Veronica Lee, Czarina Lao

Tired of your guitar strings breaking? Tired of tuning your guitar? Tired of caring your guitar around Introducing the Laser Guitar, a guitar that uses lasers instead of strings. Users can strum the guitar by passing their fingers across the lasers and press down on strings with their phone.

## **LED Pointlin**

## Raymond Wu, Liam Cohen, Sophie Mori, Chris Womack

We have designed an "LED Whiteboard" that acts as a large scale multi-color display where users can draw an image on an android smartphone and then project that image onto the LED matrix.

## Legged Robot FPV Racing

#### Michael Chuah

Quadcopter FPV racing is a rapidly growing sport as evidenced by the formation of leagues and sponsored races. It stands to reason that highly agile and maneuverable robots running over rough terrain such as rocky fields and forested areas would be even more exciting and popular.

## LightWalk

#### Garrett Parrish

Walk along a futuristic floor panel with embedded lighting and sensing technology. Watch as the floor reacts to your movement and touch and connects you with any companions you may have.

## Living Jewelry

#### Cindy Hsin-Liu Kao, Deborah Ajilo, Yael Friedman

We are creating jewelry and accessories that move around the body. As we self-express through the things we wear, we are interested in creating robotic jewelry that crawls and moves; changing its location and appearance as fitting to the wearer's social scenario. We are working on embedding miniaturized electronics and motors into jewelry, and explore functional fabrics that enable the accessories to both adhere and crawl around the body.

## Long-Term Gut Sounds Monitor

#### Benjamin Maimon

A wearable gut monitor which can record bowel sounds to propose a possible cause-effect relationship for food intolerance testing.

## Magic Mirror

#### Everardo Rosales, Thomas Needham, Julian Delerme

A smart mirror that allows you to check on the weather and news while getting ready for your day.

## MIT.A.R.S.

## Claire Nord, Anthony Liu, Lucia Liu, Anish Athalye

We built a 1:2 scale model of the robot TARS from Interstellar – and unlike the movie prop, it walks on its own.

## Mu Software Defined Radio

#### Weston Braun

A high bandwidth software defined radio system. Drop by to learn more about the how pervasive radio communication has become and it can be intercepted and altered by specialized hardware.

## Nectar + Wind Tunnel

#### Lochie Ferrier

Electric aircraft recharging system demonstration using remote controlled quadrotors and a small high speed desktop wind tunnel.

## **Next-Gen Haptics**

#### Guillermo Saavedra

A wearable device that uses distance-sensing technologies to communicate spatial information of the environment thru haptic gloves. It's inspired on the idea of allowing blind people to "see through their hands."

## Oil Spill Cleanup Robot

#### Laura Jarin-Lipschitz

A stable, manueverable, autonomous robot for cleaning up oil spills, particularly in coastal areas where larger methods are impractical.

## Portable AM and FM Radio

#### Lauren Huang

Tune into the airwaves wherever you are! This radio will run off of 1.5V AA batteries and will let you hear AM and FM signals from anywhere except inside a steel bunker and – stretch goal – broadcast your voice out to the masses near you!

## **Project Argus**

## James Li, Mina Fahmi

Project Argus consists of two platforms designed to enhance and augment a user's vision. Through the use of on-board optics, sensing, computation, and power, Argus provides night-vision, wide angle, macro, and zoom modifications as well as environmental data overlay onto screens before the user's eyes. The Argus Heavy is a full helmet, replacing vision and providing a full suite of enhancement. The Argus Lite covers only half the face, allowing the user to experience combined vision from both their augmented and natural eye through a portable package.

## **Promythic Ware**

#### Joshuah Jest

Promythic ware aims to integrate light into wearable garments to allow each user to wear their data – whether it be their heartbeat, breath rate, stock portfolio performance, or marital status.

## Puzzle Box

#### Sharlene Chiu

The Puzzle Box is a series of games. Open the doors to find three drawers. Each can only be opened by winning the game in the previous one. Complete the sliding door puzzle, the traditional maze, the laser puzzle, and the flipping door maze to obtain keys that unlock the secret hidden under the lid. The Puzzle Box is a straightforward project that allowed me to learn how to use woodworking tools and Arduino.

## Quadricycle/Flymobile

#### Marshall Craft

A four wheeled pedal vehicle that steers like a car and uses a flywheel to maintain momentum.

## Radiator Retrofit

#### Andrew Reilley, Kevin Morrow

Manually controlled radiators have a variety of problems, including inefficiency, and the inability to set the room temperature to a specific value. We fix this problem with a motorized knob that can replace radiator controls. These knobs are controlled by a thermistor placed elsewhere in the room.

## Roomtranet

## Julian Delerme

As more devices become connected and web capable, smart networks of these devices are needed to reach each one's full potential. The Roomtranet is a network of "smart" devices typically found in a dorm room and showcases some ideas for smart homes of the future.

## SaxKey

## Larry Wang

Augmented MIDI keyboard with breath sensors, ribbons, etc. to increase expressivity.

## Simdow

## Neena Dugar, Tuan Nguyen, Frances Hartwell, Meghan Kokosi

Simmons has many windows. With many windows, comes much potential. We are connecting LEDs to the windows and make them programmable, and thus turn Simmons into a giant display.

## Smartphone Segway

#### Steven Keyes

A small, toy segway that smartphones can ride around in and drive.

## Sonic Screwdriver

#### Kwahena Arthur

The sonic screwdriver is a multifunctional scientific instrument. The world is full of knowledge and data. The sonic screwdriver would hope to bridge the user and the world together. It probably won't work on wood though...

#### Strumm

#### Karan Kashyap, Matt McEachern, Ken Leidal, Greg Beams

Strumm allows you to turn your iPhone into a fun, modern guitar. Play directly on screen or sync an accelerometer-powered "pick" to start strumming!

Strumm was inspired by the grand-prize-winning hack from HackMIT.

## **TerraBoard**

#### Jarrod Smith

A mountain skateboard built from scratch with ackermann steering, full independent, double wishbone suspension and drivetrain capable of reaching 30mph on loose sand. A fun thrill that will be entirely new to the beach.

## The Binaural Microphone

#### Antonio Silva

A binaural microphone simulates the human hearing apparatus. Two microphones separated by a dummy head, results in a stereo recording that encodes the position of a given sound source with a remarkable resemblance of how our brain does it

## Tiki: The Cardboard Toy

#### Dexter Chew, Xuan Han

Tiki is a novel 'cardboard' toy designed as an cheaper, safer and sustainable alternative to vinyl-based designer toys. Individuals are engaged mentally, phyiscally, emotionally and socially, as they assemble, imagine and design their favorite figurines in 3D. Users are able to train their spatial imagination in a comfortable environment through simple planar surfaces. Tiki's carefully designed internal structure makes her strong, sturdy and worth keeping!

## Translational Drift Robotics Platform

#### **Austin Brown**

A translational drift robot is a unique platform which has interesting properties. This type of robot has one or more wheels which are precisely controlled. The motors spin the robot rapidly in place. To move in any direction power to the motors is modulated to create an imbalance of force about each revolution. Thus the robot can move in any direction.

## Wax 3D Print Head

#### Erik Ersland, Shinjini Saha

Wax is an attractive medium for 3D printing because of its low cost, high machinability, and most importantly its potential for use in lost wax casting. A wax model of an object can be submersed in plaster to create a mold that can then be filled with metal. Printing in wax then using this cheap and easy casting process is likely to be better than directly printing metal.

## Wireless Phone Charging

#### Thariq Shihipar, Abubakar Abid

A wireless charging system that can focus the energy directly on your phone and follow you was you move.

## **Xylophone of Wonder**

## Erin Main, Garo Saraydarian

Music and technology are not commonly combined in an interactive fashion in the elementary school classroom. We want to change that with the Xylophone of Wonder. The sound of each bar on the xylophone is transmitted to a computer so that students can send input in response to reading melodic and rhythmic patterns as well as compose by using an actual instrument. In addition, the instructor can reverse the process, and using LED lights cue the student to play certain bars, which translates into specific melodies and scales.

## BANQUET INFORMATION

The xFair banquet is an exclusive event that provides a unique opportunity for students to dine with representatives from our participating companies, allowing them to connect in a more personal setting. Platinum, gold, and silver sponsors have reserved tables at the banquet and will be able to invite students of their choice during xFair.

This year's banquet will take place at the Marriott Hotel in Kendall Square. The night will kick off with a networking reception, followed by dinner. This year's menu features a variety of choices, including accommodations for those with dietary restrictions.

Companies attending the banquet will be given a fixed number of invitations to distribute during the fair. Please do not solicit multiple companies for the sake of collecting invites, as this takes away opportunities from other students. Students who receive an invitation must confirm their attendance at the help desk or exit booth of the fair prior to leaving.

For more information, please visit our help desk (between booths 153 - 154), or our exit booth located at the main fair floor exit near booth 142.

# **BOOTH LAYOUT**

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11	14	31		34	55		58		81	84	107	1	10	133		135
	15	30		35	54		59		80	85	106	1	11	132		136
10	16	29		36	53		60		79	86	105	1	12	131		137
9	17	28		37	52		61		78	87	104	1	13	130		138
8	18	27		38	51		62		77	88	103		14	129		139
7	19	26		39	50		63		76	89	102	1	15	128		140
6	20	25		40	49		64		75	90	101		16	127		141
5	21	24		41	48		65		74	91	100		17	126	Е	XIT
4				42	47		66		73	92	99		18	125		142
3							67		72	93	98		19	124		143
2				43	46		68		71	94	97		20	123		144
1				44	45		69		70	95	96	1.	21	122		145
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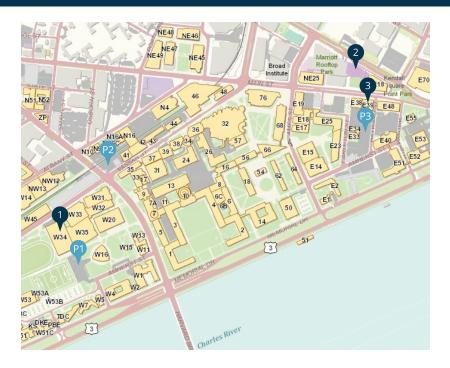
11, 12	Facebook	59	Nest Labs
71	Factual	80	New Context
146	Fitbit	34	New York Times
29	Flux	85	nfrastructure
89	Formlabs	106	Nomura
128	Founders Wanted	92	Novartis
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