

MAIN STAGE

Starting Time	Location	Title	Description	Name
Saturday, August 8, 2015				
11:00 AM	Mainstage	Mayoral Panel (60 min.)	"Making Cities" Discussion Panelists will include: Joseph Curtatone, Mayor of Somerville, MA, Jean-Luc Moudenc, Mayor of Toulouse, France, Mondli Gungubele, Mayor of Ekurhuleni, South Africa, John Barros, Chief Economic Development Boston, MA , Richard Rossi, City Manager, Cambridge, MA and more!	
12:00 PM	Mainstage	Fabbercise (20 min.)	A team from Fab Lab Wgtn will lead an awesome fabbercise session with a NZ focus and reference to popular music culture of 1983. It will be amazing!	Wendy Neale
12:30 PM	Mainstage	Fab Fashion Show (20 min.)	Digital Fabrication Fashion Show!	Anastasia Pistofidou
1:30 PM	Mainstage	Intuition Activator (60 min.)	I will active electrical appliances just via thinking (brain waves) without putting any gadget on my head or on any part of my body.	Susant Pattnaik
3:00 PM	Mainstage	Demos of Material Properties Under Temperature and Pressure Stress (60 min.)	A talk with demos, including but not limited to liquid nitrogen trash can lift-off, blowing bubbles out of plastic, comparing different kinds of plastic in terms of materials choice. So some booms and about a liter of water in a 5 m radius, power outlet for a heat gun, still working on other details.	Daniel Rosenberg
4:30 PM	Mainstage	Music/Dance Performance (30 min.)	Music for everyone!	Jo-Mé Dance
Sunday, August 9, 2015				
10:00 AM	Mainstage	Fabber Beats (60 min.)		
11:00 AM	Mainstage	Gospel Performance (30 min.)	Gospel for everyone, by David Altenor	David Altenor
12:00 PM	Mainstage	Intuition Activator (60 min.)	I will active electrical appliances just via thinking (brain waves) without putting any gadget on my head or on any part of my body.	Susant Pattnaik
1:30 PM	Mainstage	Fab Fashion Show (30 min.)	Digital Fabrication Fashion Show!	Anastasia Pistofidou
1:30 PM	Mainstage	Fab Lab Music (30 min.)	Music for everyone!	

TALKS

Starting Time	Location	Title	Description	Name
Saturday, August 8, 2015				
10:00 AM	Classroom A	Printing of CT and MRT Images Producing Educative Tangibles Through Digital Fabrication (20 min.)	In medical technology the significance of 3D-printing is rapidly increasing. The transformation of medical images in 3D-printed, touchable models for better diagnostics. The medical images usually are CT or MRT data in the DICOM format. The aim of the workshop is to show how to transform DICOM-data in printable 3D-objects and thus integrate a fablab in local medical research. Furthermore the regulatory and normative requirements to transform research projects in market-ready products will be developed – a sustainable medical fablab!	Alexander Mildner
10:00 AM	Classroom C	Impact of Digital Fabrication in Architecture (20 min.)	A talk on the impact of Digital Fabrication at our University's fab lab.	Lorenzo, Covadonga
10:30 AM	Classroom A	Fayetteville Library FabLab (20 min.)	The Nation's First Library Makerspace With community members buzzing about and excited to learn more about new transformative technologies like 3D printers, our library quickly realized the huge potential for public libraries to strengthen their communities through making for informal STEM and 21st Century skill building	Mike Cimino, Leah Kraus
10:30 AM	Classroom C	How to Create a DREAM Factory in middle school (20 min.)	Making FabLabs smart through sensors and Big Data analysis	Matthias Friessnig
12:00 PM	Classroom A	Educative Tangibles Through Digital Fabrication (20 min.)	The workshop is a detailed exploration into an on-going educational project been currently developed by 3d printing design studio Tredé, based in Puerto Rico. The project designs educational products to satisfy local and cultural-needs for an institute that organizes 25+ Montessori schools in Puerto Rico. The project includes the organization and teachers insight, current needs and explores how local digital fabrication technologies could satisfy them.	Vicente Gasco
12:00 PM	Classroom C	Makin Fab Labs Smart: Sensors and Big Data (20 min.)	Making FabLabs smart through sensors and Big Data analysis	Matthias Friessnig
12:30 PM	Classroom A	Innovative Use of Bamboo in Digital Fabrication (20 min.)	Artisan entrepreneurs who work on bamboo furniture, to integrate digital fabrication into their craft, to create better techniques and innovate their products. Using the shopbot and laser machine to create bamboo joints and innovate the current work of artisans	Vanessa Montezuma
12:30 PM	Classroom C	Making a Maker Space (20 min.)	The right space for creating not only sets the tone but can enhance and heighten the maker experience. Good design thinking fosters great design. By their nature FABLabs and maker spaces need to be flexible and inspiring. See how the lay out, furniture, equipment and design can spark innovation.	Rebecca Heavey
1:00 PM	Classroom A	Fab Labs for 'Appropriate Technologies' Suitable for Developing Countries. (60 min.)	Appropriate Technology (AT) takes into account local traditional wisdom and local resources. It involves local people in identifying and working to address their needs. Vigyan Ashram is using Fab lab tools to bring many AT in digital form. It is possible that somebody in similar conditions in different country might be in need of similar solutions. The workshop will give various examples of utilizing fab lab for some of the AT solutions and discuss steps to create their repository.	Yogesh Kulkarni
1:00 PM	Classroom C	Fab Labs as New Kind of Business Incubator for StartUps (60 min.)	The FabLab Graz is breaking new ground by integrating the makerspace to a business incubator for startups in the hardware sector; connecting entrepreneurs with SMEs, established companies, the worldwide community and other relevant network partners on the campus of a Technical University opens new opportunities. The paper describes the business model of the FabLab Graz as part of an incubator for hardware startups and the way to get there	Thomas Böhm
2:00 PM	Classroom A	Young Maker Showcase (20 min.)	This short talk will feature young makers (14 - 25) who will show and share their experience building their projects.	Netia A. McCray

2:00 PM	Classroom C	Collaborative Management in FabLabs (20 min.)	The FabLab Graz is breaking new ground by integrating the makerspace to a business incubator for startups in the hardware sector; connecting entrepreneurs with SMEs, established companies, the worldwide community and other relevant network partners on the campus of a Technical University opens new opportunities. The paper describes the business model of the FabLab Graz as part of an incubator for hardware startups and the way to get there	Julien Lamarche
2:30 PM	Classroom A	BlocksCAD: Online, Open Source CAD (20 min.)	Einstein's Workshop is one part STEAM community center, one part maker space for kids. We developed BlocksCAD in response to the lack of good, Free, easy-to-use CAD software for makers of all ages. In this short presentation, we'll talk about how we got where we are today and introduce you to the software itself.	Matthew Minuti
3:00 PM	Classroom A	Fab Textiles (20 min.)	Fab Textiles questions the way fashion industry and education have transformed our life in prototypical and excessively accelerated manner. Through projects, workshops, collaborations and curiosity, various techniques have been applied for a research in the evolution of the way we create, produce and consume our clothing. Where does our body stop, where does space begin, how can we augment our body and how we can redefine what is the border being architecture and human. Can we imagine the same product being produced in a distributed manufactured way, inside a Fab Lab, taking different form according to local materials and consumer needs? Digital experimental clothing. 20minute presentation of the project Fab Textiles and Hands on workshop of 2 sessions with laser cutters 3d printers and sewing machines.	Anastasia Pistofidou
3:00 PM	Classroom C	Makerspace For Everyone: Creating Accessible Makerspaces (60 min.)	Makerspaces offer a huge opportunity for people with disabilities to take control of their own circumstances and creativity—if they are made accessible. Talk will explore what this might look like and highlight makerspaces that are doing this.	Mare Parker-Otoole
3:30 PM	Classroom A	Open Source Automobiles (20 min.)	Commute has been more than just moving from A to B. It's more about the method you use. Some cycle, some walk, some ride. My most ambitious project, Building the Batpod (ProjectLincoln.co) helped me understand how a hardware project can be open sourced and people can contribute to it.	Abhijeet Khandagale
4:00 PM	Classroom A	Public Private Partnership (60 min.)	Creating a Fab Lab with Public Private Partnership Model. Using the shopbot and laser machine to create bamboo joints and innovate the current work of artisans	Simone Amber
4:00 PM	Classroom C	From 0 to 100 in One Day (20 min.)	We are pushing the boundary of agile manufacturing, making it more accessible and easy. This blog post gives a bit more light on what we are talking about.	Mengmeng Chen
4:30 PM	Classroom C	Russian Fab Lab Projects (20 min.)		

Sunday, August 9, 2015

10:00 AM	Classroom A	Hands-On Library Spaces in the New Economy (60 min.)	Libraries have been the launch pad for many great careers. Abraham Lincoln used this resource to become a knowledgeable attorney, orator and statesman. Others have used the library platform to learn about science, business and other subjects. Some libraries have taken the offerings of these traditional learning spaces a step further by installing full prototyping FABLabs and Maker Studio FABLabs and making them available to the public. Come and hear the discussion of how some libraries are making this transition into 21st century learning and preparation for the New Economy.	Donalyn G. Stephenson
10:30 AM	Classroom C	VCI : Self-Sufficient Habitats (20 min.)	This project aims to make self-sufficient habitats programmable. The user can control and activate different interactive scenarios depending on both Personal Factors [privacy, accessibility & permanence] and Physical Factors [noise, temperature & humidity].	Diego Machuca Claudia Gongora
11:00 AM	Classroom C	Bootstrapping Makers (20 min.)	FabLabs are an important institution. But without knowledge and motivation the machines can not be operated.	Juergen Eckert

11:30 AM	Classroom A	Valuable Aspects of FAB Enhanced Education: Design Thinking, Motivation and the I Spetrum (60 min.)	FABLabs are good. FABLabs are an educational goldmine for k-12 21st century learning. What makes the FABLab so valuable and how can we increase our understanding of how to work in this environment? Three experienced non-traditional educators will show you some of the "how's" and "why's" of Design Thinking , Motivation in STEM and the I Spectrum for integration of art in STEM.	Makeda Stephenson
11:30 AM	Classroom C	Us Fab Lab Network Information Booth (20 min.)	Visit the USFLN display booth for informative handouts. There you can talk to folks behind the United States network that aims to help launch Fab Labs and help them prosper in Academics, Business, and Community mission	David Richardson
12:00 AM	Classroom C	Collaborative Management in FabLabs (20 min.)	The goal of this talk is to introduce participants to three collaborative management practices: human centered design, the art of hosting and dynamic governance (sociocracy). With relevant references and concrete examples, makers and Fab managers will leave this talk inspired to use a new set of tools to foster creativity: the collective intelligence.	Julien Lamarche
12:30 AM	Classroom C	TiniJet WaterJet Cutting (20 min.)	THE "MISSING TOOL" Water Jet Cutting is an almost universal tool that cuts most materials without any heat and as such is a dream for anybody who is into crafts and making. However, this technology typically relies on large (i.e.: 2 by 6 m), powerful (> 4000 Bars and 3 l/min) and expensive equipment (> 100 K\$), which tends to discourage most enthusiasts. After over a year of development we came up with TiniJet, a machine that can cut almost any material up to 3/5 mm in thickness in a working area 30 by 30 cm (12/12inches) using a well-focused abrasive water jet at the 1 KBars range (15 KPsi).	Jerome Sauret
1:00 PM	Classroom A	Maker Success Stories (20 min.)	The most innovative, exciting products—and the Makers, inventors, and entrepreneurs behind them—deserve a voice. That's where The Grommet comes in. We discover consumer products and help them succeed by amplifying their stories to our community of 2.3 million people. One in 50 US households have bought, supported, or shared via The Grommet.	Charles McEnerney
1:00 PM	Classroom C	Advanced Manufacturing Panel (60 min.)	Karen Birch, University of Connecticut; Frank Gulluni, Director, Manufacturing Technology Center, Asnuntuck Community College	

SEMINARS

Starting Time	Location	Title	Description	Name
Saturday, August 8, 2015				
10:00 PM	Seminar 2	From Start to Keep Making: Best Practices from Computer Clubhouses (90 min.)	Why Start Making? The current buzz around making in both the education and workforce development fields, spurred by President Obama's 2013 call for "broadening participation to inspire a more diverse STEM talent pool," has opened up opportunities for both formal and informal education spaces to integrate new technologies and ideas, but also to focus on these spaces as forces of change for youth in our communities, where "equity lies in the how of teaching and learning." (Stanford University's FabLearn 2013)	Danielle Martin
1:00 PM	Seminar 1	3D Printing + Modelling for All (90 min.)	Meet Morphi, a new 3D modeling + printing app that puts the power of design in the hands of students and educators everywhere. www.morphiapp.com In Morphi, learners of all ages and skill levels can make 3D printable objects on the go using touch, without wifi or a mouse. The app has many uses including creating models, inventions and prototypes and as a learning tool for Maker education.	Sophia Georgiou
1:00 PM	Seminar 2	Fayetteville Free Library Lab : Library Makerspace (90 min.)	Fayetteville Free Library Fab Lab: The Nation's First Library Makerspace With community members buzzing about and excited to learn more about new transformative technologies like 3D printers, our library quickly realized the huge potential for public libraries to strengthen their communities through making for informal STEM and 21st Century skill building	Mike Cimino, Leah Kraus

3:00 PM	Seminar 1	From Start to Keep Making: Best Practices from Computer Clubhouses (90 min.)	Why Start Making? The current buzz around making in both the education and workforce development fields, spurred by President Obama's 2013 call for "broadening participation to inspire a more diverse STEM talent pool," has opened up opportunities for both formal and informal education spaces to integrate new technologies and ideas, but also to focus on these spaces as forces of change for youth in our communities, where "equity lies in the how of teaching and learning." (Stanford University's FabLearn 2013)	Danielle Martin
3:00 PM	Seminar 2	Prototyping Tools in STEM Education (90 min.)	We will teach the trainees about prototyping system to bring ideas to life and create innovations.	Ahmad Alsaleh

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ALL DAY ACTIVITIES

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Saturday, August 8, 2015

10:00 AM	Find in Map	Fab Loom Workshop (All day)	We will make dynamic looms dynamic be held Participants will learn to loom weaving fab They can participate children and adults	Walter Gonsales
10:00 AM	Find in Map	Nerdy Derby (All day)	Miniature car building and racing competition made with CNC. Undulating track and no restriction on the size of cars or materials	Jaymes Dec
10:00 AM	Find in Map	Make your Own Robot (All day)	We will make the Robot with natural material and then have a time race.	Youka Watanabe
10:00 AM	Find in Map	Mobile Robotics (All day)	Participants have to build a mobile platform based on an arduino processor. The mobile robotics workshop gives you an opportunity to design, simulate and fabricate mobile robots for navigation in road, water, underwater, or in the air.	Vinod Balakrishna
10:00 AM	Find in Map	3D Modeling + Printing for All (All day)	Meet Morphi, a new 3D modeling + printing app that puts the power of design in the hands of students and educators everywhere. www.morphiapp.com In Morphi, learners of all ages and skill levels can make 3D printable objects on the go using touch, without wifi or a mouse. The app has many uses including creating models, inventions and prototypes and as a learning tool for Maker education.	Sophia Georgiou
10:00 AM	Find in Map	3D Printed Plant Cloud (All day)	3D printed plant cloud will use the Form 1+ 3D printer to create high resolution parametrically designed planters. Students will be introduced to techniques for stereolithography 3d printing, as well as the finishing and clean up of prints. At the end of the workshop, individual planters will be assembled into a floating installation of geometric plants and succulents. Students are invited to take home planters after their class.	Meg Maupin
10:00 AM	Find in Map	Drop-In Maker Space & Young Makers (All day)	Stop by and build you own electronic gadgets, race toys, solar powered mobile phone chargers, and much more. All ages are welcome but is recommended for children 8+	Netia A. McCray
10:00 AM	Find in Map	Fabtronic Sense (All day)	Teknikio sets show you how to embed smart materials and electronics into different materials. Deren created Teknikio in attempt to fill the gap of low-tech toolkits targeted at girls. Though our focus is to attract girls, we work to make our kits accessible to everyone using open-ended methods of craft and design. This workshop will showcase Teknikio sets and parts, demonstrating how to use them in different contexts. We will also discuss strategies for creating engaging lessons for STEM.	Deren Guler

10: 00 AM	Find in Map	MeconoMorph (All day)	Building a perpetually growing Art/Science/Business installation from business cards.	Viktor Genel
10: 00 AM	Find in Map	DIY "Insect" Forest (All day)	DIY "Insect" Forest Participate in collaborative art by building an "insect" forest using simple coin cells and buzzers, vibration motors and resistors to make personalized insect to place in the "forest"	Sankalp Modi
10: 00 AM	Find in Map	Science from Scientists (All day)	Hands-on Table Top Activity Structural engineering with jenga, predator-prey-recapture, making oobleck surfactants with tie-dye milk, pressure and the mini bed of nails or dry ice bubbles	Amanda Schutt
10: 00 AM	Find in Map	Desktop 3D Printing and scanning (All day)		
10: 00 AM	Find in Map	Interactive Stories with Circuit Stickers (All day)	This workshop will introduce StoryMaking, a process that cultivates creative learning by combining new forms of storytelling and new forms of making with technology. Participants will explore StoryMaking with Circuit Stickers, tiny peel-and-stick electronic parts that you can use to make interactive light projects. We will use circuit stickers and craft materials to design and create paper based interactive light up artifacts and use these creations to tell our personal stories in whole new ways.	Alisha Panjwani
10: 00 AM	Find in Map	Mondrian the Modular RePap (All day)	The RepRap Mondrian is a modular cartesian robot that can be made in any FabLab. Serving as a 3d printer or for other purposes.	Emmanuel Gilloz
10: 00 AM	Find in Map	Hacking Atoms (All day)	One of the frontiers for making is making at the nanoscale - working with objects as small as one nanometer (one-billionth of a meter!). We will talk about the nanoscale from the simplest concepts to nanoscale additive manufacturing and we will have opportunities to examine some of the useful properties of materials that emerge when you can work at the nanoscale. Participants will also have an opportunity to produce and a nanoscale superhydrophobic surface that they can experiment with at the and actually make at home.	Thomas L. Deits, Ph.D
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10: 00 AM	Find in Map	MeconoMorph (All day)	Building a perpetually growing Art/Science/Business installation from business cards.	Viktor Genel
10: 00 AM	Find in Map	DIY "Insect" Forest (All day)	DIY "Insect" Forest Participate in collaborative art by building an "insect" forest using simple coin cells and buzzers, vibration motors and resistors to make personalized insect to place in the "forest"	Sankalp Modi
10: 00 AM	Find in Map	Desktop 3D Printing and scanning (All day)		
10: 00 AM	Find in Map	Interactive Stories with Circuit Stickers (All day)	This workshop will introduce StoryMaking, a process that cultivates creative learning by combining new forms of storytelling and new forms of making with technology. Participants will explore StoryMaking with Circuit Stickers, tiny peel-and-stick electronic parts that you can use to make interactive light projects. We will use circuit stickers and craft materials to design and create paper based interactive light up artifacts and use these creations to tell our personal stories in whole new ways.	Alisha Panjwani
10: 00 AM	Find in Map	Mondrian the Modular RePap (All day)	The RepRap Mondrian is a modular cartesian robot that can be made in any FabLab. Serving as a 3d printer or for other purposes.	Emmanuel Gilloz
10: 00 AM	Find in Map	Hacking Atoms (All day)	One of the frontiers for making is making at the nanoscale - working with objects as small as one nanometer (one-billionth of a meter!). We will talk about the nanoscale from the simplest concepts to nanoscale additive manufacturing and we will have opportunities to examine some of the useful properties of materials that emerge when you can work at the nanoscale. Participants will also have an opportunity to produce and a nanoscale superhydrophobic surface that they can experiment with at the and actually make at home.	Thomas L. Deits, Ph.D

FAB LAB WORKSHOPS

Starting Time	Location	Title	Description	Name
Saturday, August 8, 2015				
10:00 AM	FAB LAB D	Fab Modules: Deploy, Use and Extend (90 min.)	The workshop shows how to install, use and extend the new html5 fab modules in a breeze. During the first part, participants will be guided in the installation process, and practical use of the Fab Modules will be demonstrated using one of the supported machines available at the venue. During the second part, focused on development of new features and modules, the code structure and main functional blocks will be analyzed, and a sample extension demonstrated	Fiore Basile
10:00 AM	FAB LAB F	Emosilla: Build Up your Chair (90 min.)	The Emosilla Workshop is designed for 4 to 10 years old kids . During the workshop they will learn the process of digital fabrication by participating in the personalization, design and fabrication of a chair their size that they will take home. It consists of 3 activities, each one with a specific goal: 1. The kids will learn about their emotions by listening to different types of music, looking at pictures that express diverse emotions and talking about their daily experiences. 2. They will be able to capture one emotion in a graphic way by drawing a face in the back of the chair, first on paper, then digitally and finally using the CNC machine or the laser cutter to engrave their drawing. 3. They will be introduced to the network.	Alejandra Díaz de León Ilaria La Manna

12:00 PM	FAB LAB A	Design Your Own Embroidery (120 min.)	Sew a soft circuit with laserable soft/flexible battery holder and milled, sewable LEDs - Use an automated embroidery machine to design a patch - Add interactive sound to your fabric project with silver-thread touch sensors	Virginia McCreary
12:00 PM	FAB LAB B	Laser PCB (90 min.)	The most common way to make PCBs in a fablab is to mill them. But there is an alternative. Let's just forget about etching, because of the nasty chemicals involved. Fiber lasers are able to engrave metal too, and if you set them properly it's possible to make amazing hi-res pcb. During the workshop we will see the entire process from an Eagle file to a PCB.	Enrico Bassi
12:00 PM	FAB LAB C	Shop Bot for Beginners (180 min.)	A lot of groups are scared of using the ShopBot, especially with young groups. In this workshop I will demonstrate how I teach the ShopBot (including design, toolpath generation and fabrication) to groups as young as 12 years old within a single 90-120 minute session. I would like 3 hours for the workshop so we can have a bit of discussion and analysis, but this workshop will principally be an active demonstration of the workshop.	Matt Chalker
1:00 PM	FAB LAB D	Giant Analog: Digital Wave Machine (90 min.)	To collaborate to construct a giant pendulum swinging together to create sine wave patterns. Add electronic sensors run off Rasberry Pi microcontrollers to simulate and explore patterns digitally	Nancy Otero Ornelas
1:00 PM	FAB LAB F	Risha Laser Cutter (90 min.)	Risha is a new concept for portable laser cutters that works via mobile phone. It is 100% fabbed and open-source. Ideal for people without or with limited CAD knowledge and artists/hobbyists who'd like an inexpensive way to explore laser cutting.	Moushira Elamrawy
1:30 PM	FAB LAB B	Open Lab (180 min.)	Come and make things	
1:30 PM	FAB LAB E	A Composite Expansion Tank for a Tiny Hydro Generator (90 min.)	For 15 years I have worked as a physicist and technology scout for Swarovski. Right now I'm building up a Fab Lab to enable makers, artists, students, and entrepreneurs. The tiny hydro was my final project for "How to make" in 2014. It is part of the project "Smart Africa" - an affordable, solar driven device producing tap water, energy, and light without batteries. The concept was developed in the class Development Ventures. Here we will build a composite expansion tank for energy storage.	Christian Teissl
3:00 PM	FAB LAB A	Fab Textiles (120 min.)	Fab Textiles questions the way fashion industry and education have transformed our life in prototypical and excessively accelerated manner. Through projects, workshops, collaborations and curiosity, various techniques have been applied for a research in the evolution of the way we create, produce and consume our clothing. Where does our body stop, where does space begin, how can we augment our body and how we can redefine what is the border being architecture and human. Can we imagine the same product being produced in a distributed manufactured way, inside a Fab Lab, taking different form according to local materials and consumer needs? Digital experimental clothing. 20minute presentation of the project Fab Textiles and Hands on workshop of 2 sessions with laser cutters 3d printers and sewing machines.	Anastasia Pistofidou
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3:00 PM	FAB LAB F	Design and Fabrication of a Wind Turbine Using 3D Printing (90 min.)	We will improve design and test efficiency of the wind turbine via 3D printing.	Kang Yao
3:30 PM	FAB LAB C	ShopBot Demos (90 min.)	A lot of groups are scared of using the ShopBot, especially with young groups. In this workshop I will demonstrate how I teach the ShopBot (including design, toolpath generation and fabrication) to groups as young as 12 years old within a single 90-120 minute session. I would like 3 hours for the workshop so we can have a bit of discussion and analysis, but this workshop will principally be an active demonstration of the workshop.	Matt Chalker

3:30 PM	FAB LAB E	Making as Universal Design for Learning (90 min.)	Universal Design for Learning (UDL) is a framework to improve and optimize teaching and learning for all people based on scientific insights into how humans learn. Come experience how to make learning inherently accessible by providing multiple means of representation, engagement, and expression. How does making stimulate interest and motivation for learning? How can making help you to present information and content in different ways? How can making be used to differentiate the ways that students express what they know? Try out some of the fabrication tools to experience this for yourselves!	Beth Lloyd
Sunday, August 9, 2015				
10:00 AM	FAB LAB A	FabLabs for local disaster Relief (120 min.)	In the context of the Nepal earthquake, participate in a design challenge that will explore how a local makerspace /labs like can help-Shelter, Communication , Medical aid/food/water and Power/Electricity. Participants will work in consultation with the Banjarapalya makerspace, to create designs that use locally available material. Banjarapalya Makerspace (INDIA) can help provide relief to their local community.	Sankalp Modi
10:00 AM	FAB LAB B	Open Lab (240 min.)	Come and make things	
10:00 AM	FAB LAB D	Fablab 101 and Masters Challenge (120 min.)	These "how to" workshops are designed to familiarize the least experienced person with CNC. Members of the FABCity Boston area will give basic instruction and some hands on with open source CAD and CAM programs and the application at the CNC machines.	Donalyn G. Stephenson
10:00 AM	FAB LAB F	Fabbing with Danger! Awesome (180 min.)		
10:30 AM	FAB LAB E	Laser PCB (90 min.)	The most common way to make PCBs in a fablab is to mill them. But there is an alternative. Let's just forget about etching, because of the nasty chemicals involved. Fiber lasers are able to engrave metal too, and if you set them properly it's possible to make amazing hi-res pcb. During the workshop we will see the entire process from an Eagle file to a PCB.	Enrico Bassi
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11:00 PM	FAB LAB D	Fab Scaped (60 min.)		Jemuel Stephenson
12:30 PM	FAB LAB A	Sci-Fi is here (90 min.)	We will make reactors of Iron Man and (maybe) a saber laser from Star Wars. Such things can attract children and kids to a fab lab.	Igor Asonov
12:30 PM	FAB LAB E	Floating Fablab Amazon (90 min.)	The Floating Fab – Amazon The initiative is to create a digital fabrication laboratory (Fab Lab) that will navigate the Amazon River. It will provide local communities with access to technological tools that allow them to cope with their daily challenges with water, energy, health, food, education while at the same time, serve as a place for research and development to better understand the Amazon. Because it is a green lung of the world, the Amazon is the ideal scene for exploring alternative solutions in favor of a responsible industry which is sensible and integrated to local and global developments.	Beno Juarez
12:30 PM	FAB LAB F	Risha Laser Cutter (90 min.)	Risha is a new concept for portable laser cutters that works via mobile phone. It is 100% fabbed and open-source. Ideal for people without or with limited CAD knowledge and artists/hobbyists who'd like an inexpensive way to explore laser cutting.	Moushira Elamrawy
1:00 PM	FAB LAB D	Fab Scaped (60 min.)		Jemuel Stephenson

OTHER WORKSHOPS

Starting Time	Location	Title	Description	Name
Saturday, August 8, 2015				
12:00 PM	WOODSHOP	Bamboo in Design (90 min.)	Bamboo in Design' involves designing and making your own bamboo products from clothes hangars, light fixtures, lamp shades, simple furniture or home decor items. Starting with the initial design and going on until polishing your creations, you will have the opportunity to go through the entire process of creating a finished product. Perfect opportunity for designers and makers to explore a product using bamboo.	Pavan Kumar
12:00 PM	ELECTRONIC LAB	Build an Electronic Paper City (90 min.)	Circuit Scribe is a conductive ink pen that enables you to draw functional circuits on paper. In this workshop we will build an electronic paper neighborhood. Use our components, paper circuit templates, and craft materials to create a row of houses that light up, a traffic intersection, or a replica of Boston's weather beacon with flashing red and blue lights.	Analisa Russo
12:00 PM	GYM	3D Hubs & ProtoPasta Special Filament (60 min.)	Hi Hubs & 3D printing enthusiasts! I'd like to invite you to a 3D Hubs Special Filament Workshop in Boston, organized in collaboration with ProtoPasta. We'll be showcasing two special ProtoPasta filaments with a workshop on best practices, 'how to use' these filament on FDM printers & polishing techniques. Every attendee will receive a custom made ProtoPasta sample pack. Register on http://bit.ly/1GZgUjX	Adam Proctor
1:00 PM	COMPUTER LAB	Open Source Algamo Project (90 min.)	Weeding robot in rice field	Masato Takemura
1:00 PM	MAKE LAB	Sustainable Design Toolbox (90 min.)	Forum for the Future has been working with the maker community to understand how additive manufacturing can be a tool for good. Together we have developed a Sustainable Design Toolbox: a set of tools to help makers of all types to consider and build upon their design. This is one part of the larger iMade project.	Rodrigo Bautista
1:00 PM	GYM	3D Hubs Social Hour (120 min.)	Hubs & 3D printing enthusiasts SOCIAL HOUR!	Adam Proctor
2:00 PM	ELECTRONIC LAB	Rube Golbery Machines using bits and atoms (120 min.)	While exploring the basics of Scratch programming and physical computing using the Lego WeDo, Makey Makey and LittleBits, we'll build "Rube Goldberg" chain reactions. A playful way to incorporate computational thinking in schools, this activity embodies the principles of the FabLab and Maker movements. These "Rube Goldberg machines" will span both the physical and digital words, triggering motors and other actuators, causing various sensors to continue the process back in the virtual world.	Joe Santiago
3:00 PM	COMPUTER LAB	Robotics for Everyone (90 min.)	We will blend innovation, creativity and robotics to solve series of challenges. Every day we will learn new programming and mechanical skills using Educational Robot System. The workshop will be your destination to learn, have fun and win prizes.	Hesham Mahmoud
3:30 PM	MAKE LAB	Sustainable Design Toolbox (90 min.)	Forum for the Future has been working with the maker community to understand how additive manufacturing can be a tool for good. Together we have developed a Sustainable Design Toolbox: a set of tools to help makers of all types to consider and build upon their design. This is one part of the larger iMade project.	Rodrigo Bautista
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Sunday, August 9, 2015

10:00 AM	COMPUTER LAB	Building Smart Devices: Bluetooth Low Energy 4.0 (60 min.)	The workshop is aimed at giving an overview of the BLE 4.0 technology and its applications for building devices able to talk to modern smartphones. After an introduction to the BLE technology and available hardware, participants will be shown practical examples of BLE implementation on both iOS and Android.	Fiore Basile
10:00 AM	MAKE LAB	Make to Move (90 min.)	Our society is no longer moving as we once did. Opportunities for natural movement have diminished from long days of static sitting at work or school! It is affecting our attention, health and emotions. Learn how one community of makers put movement back into daily lives, using engaging items...a musical hopscotch, a jumping wall wired with a Makey Makey, a cardboard rocker and a pedaling machine that lights and plays music. Make something with us and experience how fun it is to move again!	Minxian Falender
10:00 AM	WOODSHOP	Bamboo in Design (90 min.)	Bamboo in Design' involves designing and making your own bamboo products from clothes hangars, light fixtures, lamp shades, simple furniture or home decor items. Starting with the initial design and going on until polishing your creations, you will have the opportunity to go through the entire process of creating a finished product. Perfect opportunity for designers and makers to explore a product using bamboo.	Pavan Kumar
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10:00 AM	GYM	Fab longue and Networking		
11:30 PM	COMPUTER LAB	HTML5&Node.js Programming for Harware (90 min.)	The workshop is aimed at giving an introduction on HTML5 applications focused on controlling hardware devices. After a short introduction on relevant standards, participants will be shown how to control serial communication via the browser using WebSockets, Node.js and Ajax.	Fiore Basile
12:00 PM	ELECTRONIC LAB	FAB Audio : DIY Speakers (90 min.)	In this workshop, participants will explore the relationship between electricity and magnetism to discover how audio speakers work. Attendees will make their own working audio speakers with familiar materials. Starting with a very simple design, we will explore how they can iterate improve the quality of the speakers. Participants get to take their speakers home and impress their families and friends!	Jaymes Dec

MAIN STAGE

Time	Location	Title	Description	Name
Saturday, August 8, 2015				
11:00 AM		Mayoral Panel	"Making Cities" Discussion Panelists will include: Joseph Curtatone, Mayor of Somerville, MA, Jean-Luc Moudenc, Mayor of Toulouse, France, Mondli Gungubele, Mayor of Ekurhuleni, South Africa, John Barros, Chief Economic Development Boston, MA , Richard Rossi, City Manager, Cambridge, MA and more!	
12:00 PM		Fabercise	A team from Fab Lab Wgtn will lead an awesome fabercise session with a NZ focus and reference to popular music culture of 1983. It will be amazing!!!	Wendy Neale
12:30 PM		Fab Fashion Show		Anastasia Pistofidou
2:00 PM		Intuition Activator	I will active electrical appliances just via thinking (brain waves) without putting any gadget on my head or on any part of my body.	Susant Pattnaik
3:00 PM		Demos of Material Properties Under Temperature and Pressure Stress	A talk with demos, including but not limited to liquid nitrogen trash can lift-off, blowing bubbles out of plastic, comparing different kinds of plastic in terms of materials choice. So some booms and about a liter of water in a 5 m radius, power outlet for a heat gun, still working on other details.	Daniel Rosenberg
4:00 PM		Music/Dance Performance	Music for everyone!	
Sunday, August 9, 2015				
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1:30 PM		Music/Dance Performance	Music for everyone!	
TALKS				
Time	Location	Title	Description	Name
Saturday, August 8, 2015				
10:00 AM	Classroom C	The Impact of Digital Fabrication in Architecture and Engineering Education at the University (20 min.)	A talk on the impact of Digital Fabrication at our University's fab lab.	Lorenzo, Covadonga

10:00 AM	Classroom A	Producing Educative Tangibles Through Digital Fabrication (20 min.)	The workshop is a detailed exploration into an on-going educational project been currently developed by 3d printing design studio Tredé, based in Puerto Rico. The project designs educational products to satisfy local and cultural-needs for an institute that organizes 25+ Montessori schools in Puerto Rico. The project includes the organization and teachers insight, current needs and explores how local digital fabrication technologies could satisfy them.	Vicente Gasco
10:30 AM	Classroom A	Making FabLabs Smart (20 min.)	Making FabLabs smart through sensors and Big Data analysis	Matthias Friessnig
12:00 PM	Classroom C	Innovation in the Use of Bamboo (20 min.)	Artisan entrepreneurs who work on bamboo furniture, to integrate digital fabrication into their craft, to create better techniques and innovate their products. Using the shopbot and laser machine to create bamboo joints and innovate the current work of artisans	Vanessa Montezuma
12:00 PM	Classroom A	Fayetteville Library FabLab (60 min.)	The Nation's First Library Makerspace With community members buzzing about and excited to learn more about new transformative technologies like 3D printers, our library quickly realized the huge potential for public libraries to strengthen their communities through making for informal STEM and 21st Century skill building	Mike Cimino, Leah Kraus
12:30 PM	Classroom C	Printing of CT and MRT Images Producing Educative Tangibles Through Digital Fabrication (20 min.)	In medical technology the significance of 3D-printing is rapidly increasing. The transformation of medical images in 3D-printed, touchable models for better diagnostics. The medical images usually are CT or MRT data in the DICOM format. The aim of the workshop is to show how to transform DICOM-data in printable 3D-objects and thus integrate a fablab in local medical research. Furthermore the regulatory and normative requirements to transform research projects in market-ready products will be developed – a sustainable medical fablab!	Alexander Mildner
1:00 PM	Classroom A	A FabLab as a Part of New Kind of Business Incubator (60 min.)	The FabLab Graz is breaking new ground by integrating the makerspace to a business incubator for startups in the hardware sector; connecting entrepreneurs with SMEs, established companies, the worldwide community and other relevant network partners on the campus of a Technical University opens new opportunities. The paper describes the business model of the FabLab Graz as part of an incubator for hardware startups and the way to get there	Thomas Böhm
1:00 PM	Classroom C	Collaborative Management in FabLabs (20 min.)	The goal of this talk is to introduce participants to three collaborative management practices: human centered design, the art of hosting and dynamic governance (sociocracy). With relevant references and concrete examples, makers and Fab managers will leave this talk inspired to use a new set of tools to foster creativity: the collective intelligence.	Julien Lamarche
1:30 PM	Classroom C	Making a Maker Space (20 min.)	The right space for creating not only sets the tone but can enhance and heighten the maker experience. Good design thinking fosters great design. By their nature FABLabs and maker spaces need to be flexible and inspiring. See how the lay out, furniture, equipment and design can spark innovation.	Rebecca Heavey
2:00 PM	Classroom C	Young Maker Showcase (20 min.)	This short talk will feature young makers (14 - 25) who will show and share their experience building their projects.	Netia A. McCray

2:00 PM	Classroom A	Fab Labs for 'Appropriate Technologies' Suitable for Developing Countries. (60 min.)	Appropriate Technology (AT) takes into account local traditional wisdom and local resources. It involves local people in identifying and working to address their needs. Vigyan Ashram is using Fab lab tools to bring many AT in digital form. It is possible that somebody in similar conditions in different country might be in need of similar solutions. The workshop will give various examples of utilizing fab lab for some of the AT solutions and discuss steps to create their repository.	Yogesh Kulkarni
2:30 PM	Classroom C	BlocksCAD: Online, Open Source CAD (20 min.)	Einstein's Workshop is one part STEAM community center, one part maker space for kids. We developed BlocksCAD in response to the lack of good, Free, easy-to-use CAD software for makers of all ages. In this short presentation, we'll talk about how we got where we are today and introduce you to the software itself.	Matthew Minuti
3:00 PM	Classroom C	Public Private Partnership (20 min.)	Creating a Fab Lab with Public Private Partnership Model. Using the shopbot and laser machine to create bamboo joints and innovate the current work of artisans	Simone Amber
3:00 PM	Classroom A	Makerspace For Everyone: Creating Accessible Makerspaces (60 min.)	Makerspaces offer a huge opportunity for people with disabilities to take control of their own circumstances and creativity—if they are made accessible. Talk will explore what this might look like and highlight makerspaces that are doing this.	Mare Parker-Otoole
3:30 PM	Classroom C	Fab Textiles (20 min.)	Fab Textiles questions the way fashion industry and education have transformed our life in prototypical and excessively accelerated manner. Through projects, workshops, collaborations and curiosity, various techniques have been applied for a research in the evolution of the way we create, produce and consume our clothing. Where does out body stop, where does space begin, how can we augment our body and how we can redefine what is the border being architecture and human. Can we imagine the same product being produced in a distributed manufactured way, inside a Fab Lab, taking diferent form according to local materials and consumer needs? Digital experimental clothing. 20minute presentation of the project Fab Textiles and Hands on workshop of 2 sessions with laser cutters 3d printers and sewing machines.	Anastasia Pistofidou
4:00 PM	Classroom A	From 0 to 100 in One Day (20 min.)	We are pushing the boundary of agile manufacturing, making it more accessible and easy. This blog post gives a bit more light on what we are talking about.	Mengmeng Chen
4:00 PM	Classroom C	Public Private Partnership (20 min.)	Creating a Fab Lab with Public Private Partnership Model. Using the shopbot and laser machine to create bamboo joints and innovate the current work of artisans	Simone Amber
4:30 PM	Classroom C	Collaborative Management in FabLabs (20 min.)	The goal of this talk is to introduce participants to three collaborative management practices: human centered design, the art of hosting and dynamic governance (sociocracy). With relevant references and concrete examples, makers and Fab managers will leave this talk inspired to use a new set of tools to foster creativity: the collective intelligence.	Julien Lamarche

4:30 PM	Classroom A	Open Source Automobiles (20 min.)	Commute has been more than just moving from A to B. It's more about the method you use. Some cycle, some walk, some ride. My most ambitious project, Building the Batpod (ProjectLincoln.co) helped me understand how a hardware project can be open sourced and people can contribute to it.	Abhijeet Khandagale
Sunday, August 9, 2015				
10:00 AM	Classroom A	Hands-On Library Spaces in the New Economy (60 min.)	Libraries have been the launch pad for many great careers. Abraham Lincoln used this resource to become a knowledgeable attorney, orator and statesman. Others have used the library platform to learn about science, business and other subjects. Some libraries have taken the offerings of these traditional learning spaces a step further by installing full prototyping FABLabs and Maker Studio FABLabs and making them available to the public. Come and hear the discussion of how some libraries are making this transition into 21st century learning and preparation for the New Economy.	Donalyn G. Stephenson
10:30 AM	Classroom C	VCI : Self-Sufficient Habitats (20 min.)	This project aims to make self-sufficient habitats programmable. The user can control and activate different interactive scenarios depending on both Personal Factors [privacy, accessibility & permanence] and Physical Factors [noise, temperature & humidity].	Diego Machuca Claudia Gongora
11:00 AM	Classroom A	Valuable Aspects of FAB Enhanced Education: Design Thinking, Motivation and the I Spectrum (60 min.)	FABLabs are good. FABLabs are an educational goldmine for k-12 21st century learning. What makes the FABLab so valuable and how can we increase our understanding of how to work in this environment? Three experienced non-traditional educators will show you some of the "how's" and "why's" of Design Thinking, Motivation in STEM and the I Spectrum for integration of art in STEM.	Makeda Stephenson
11:00 AM	Classroom C	Bootstrapping Makers (20 min.)	FabLabs are an important institution. But without knowledge and motivation the machines can not be operated.	Juergen Eckert
11:30 AM	Classroom C	Us Fab Lab Network Information Booth (20 min.)	Visit the USFLN display booth for informative handouts. There you can talk to folks behind the United States network that aims to help launch Fab Labs and help them prosper in Academics, Business, and Community mission	David Richardson
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1:00 PM	Classroom A	Maker Success Stories	The most innovative, exciting products—and the Makers, inventors, and entrepreneurs behind them—deserve a voice. That's where The Grommet comes in. We discover consumer products and help them succeed by amplifying their stories to our community of 2.3 million people. One in 50 US households have bought, supported, or shared via The Grommet.	Charles McEnerney
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SEMINARS

Time	Location	Title	Description	Name
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Saturday, August 8, 2015

12:00 PM	Seminar 1	Prototyping Tools in STEM Education (90 min.)	We will teach the trainees about prototyping system to bring ideas to life and create innovations.	Ahmad Alsaleh
12:00 PM	Seminar 2	From Start to Keep Making: Best Practices from Computer Clubhouses (90 min.)	Why Start Making? The current buzz around making in both the education and workforce development fields, spurred by President Obama's 2013 call for "broadening participation to inspire a more diverse STEM talent pool," has opened up opportunities for both formal and informal education spaces to integrate new technologies and ideas, but also to focus on these spaces as forces of change for youth in our communities, where "equity lies in the how of teaching and learning." (Stanford University's FabLearn 2013)	Danielle Martin
1:30 PM	Seminar 2	Fayetteville Free Library Lab : Library Makerspace (60 min.)	Fayetteville Free Library Fab Lab: The Nation's First Library Makerspace With community members buzzing about and excited to learn more about new transformative technologies like 3D printers, our library quickly realized the huge potential for public libraries to strengthen their communities through making for informal STEM and 21st Century skill building	Mike Cimino, Leah Kraus

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Continuous Workshops and Exhibitions

Time	Location	Title	Description	Name
Saturday, August 8, 2015				
10am onward		Hacking Atoms	One of the frontiers for making is making at the nanoscale - working with objects as small as one nanometer (one-billionth of a meter!). We will talk about the nanoscale from the simplest concepts to nanoscale additive manufacturing and we will have opportunities to examine some of the useful properties of materials that emerge when you can work at the nanoscale. Participants will also have an opportunity to produce and a nanoscale superhydrophobic surface that they can experiment with at the and actually make at home.	Thomas L. Deits, Ph.D
10am onward		Boston GreenFest	We would like to invite everyone to join us for the 8th Annual Boston GreenFest to take place at Boston City Hall Plaza	Karen Weber
10am onward		MeconoMorph	Building a perpetually growing Art/Science/Business installation from business cards.	Viktor Genel
10am onward		Fab Loom Workshop	We will make dynamic looms dynamic be held Participants will learn to loom weaving fab They can participate children and adults	Walter Gonzales
10am onward		Fab Textiles	FAB TEXTILES questions the way fashion industry and education have transformed our life in prototypical and excessively accelerated manner. Through projects, workshops, collaborations and curiosity, various techniques have been applied for a research in the evolution of the way we create, produce and consume our clothing. Where does out body stop, where does space begin, how can we augment our body and how we can redefine what is the border being architecture and human. Can we imagine the same product being produced in a distributed manufactured way, inside a Fab Lab, taking different form according to local materials and consumer needs? Digital experimental clothing. 20minute presentation of the project Fab Textiles and Hands on workshop of 2 sessions with laser cutters 3d printers and sewing machines.	Anastasia Pistofidou
10am onward		Urban Small Space Woodworking	Will bring a full hand tool woodworking shop that can fit in a space as small as 4' x 6' consisting of a 4' x 2' workbench that beginners can build hand tools (no power) and demonstration materials.	Steve Branam
10am onward		Science from Scientists	Hands-on Table Top Activity Structural engineering with jenga, predator-prey-recapture, making oobleck surfactants with tie-dye milk, pressure and the mini bed of nails or dry ice bubbles	Amanda Schutt
10am onward		Fab Academy Final Project - Rapidly Deployable Automation System	I'll be demonstrating my Fab Academy 2015 final project, the Rapidly Deployable Automation System. It is a robot that unfolds from a cube and begins roving around. The robot is designed around a 1u CubeSat. It can be controlled with a tele-operational headband that the user wears to detect head movements.	Erin Kennedy

10am onward	Us Fab Lab Network Information Booth	<p>Visit the USFLN display booth for informative handouts. There you can talk to folks behind the United States network that aims to help launch Fab Labs and help them prosper in Academics, Business, and Community missions (www.USFLN.org).</p> <p>Customize Your World: Intro to Fab Lab for Beginners</p>	David Richardson
10am onward	Introduction to Fab Lab	<p>Show children as young as 8 how to turn original art into vector graphics suitable for vinyl and laser cutting. In this workshop you will draw; capture the art on camera; import drawings into Inkscape; trace the image and clean it up for cutting. Create your own design for t-shirts, stickers and laser etches and cuts.</p>	Netia A. McCray
10am onward	Drop-In Maker Space	<p>Stop by and build you own electronic gadgets, race toys, solar powered mobile phone chargers, and much more. All ages are welcome but is recommended for children 8+</p>	Netia A. McCray
10am onward	Open Source Automobiles	<p>Commute has been more than just moving from A to B. It's more about the method you use. Some cycle, some walk, some ride. My most ambitious project, Building the Batpod (ProjectLincoln.co) helped me understand how a hardware project can be open sourced and people can contribute to it.</p>	Abhijeet Khandagale
10am onward	DIY "Insect" Forest	<p>DIY "Insect" Forest Participate in collaborative art by building an "insect" forest using simple coin cells and buzzers, vibration motors and resistors to make personalized insect to place in the "forest"</p>	Sankalp Modi
10am onward	Colabyrinth Game	<p>Originally created for Figment Boston 2015, this game was designed, built and engineered by Boston Maker's Micro-controller Club using Arduino, pressure sensors, a 3-D printer and lots of wood. It requires two players (or two teams) to work together to control and maneuver a ball through a labyrinth.</p>	Boston Makers
10am onward	Fabtronic Sense	<p>Teknikio sets show you how to embed smart materials and electronics into different materials. Deren created Teknikio in attempt to fill the gap of low-tech toolkits targeted at girls. Though our focus is to attract girls, we work to make our kits accessible to everyone using open-ended methods of craft and design. This workshop will showcase Teknikio sets and parts, demonstrating how to use them in different contexts. We will also discuss strategies for creating engaging lessons for STEM.</p>	Deren Guler
10am onward	Machine Building	<p>Egypt's accumulated problems are all the direct consequences of overpopulation such as electricity deficiency and traffic jam. Therefore I realized that finding a solution for electricity deficiency is good , but exploiting traffic jam in order to solve electricity deficiency , is better , and that what I did! My prototype is a one way bump that converts kinetic energy into electric energy in the form of stored DC by a battery, and also it organizes the traffic fulfilling the main design requirements of our prototype. After many trials and tests, it eventually succeeded to generate electricity during the tests. This new method of generating electricity is eco-friendly and not expensive, it reduces the needs for burning fuels and reduces the greenhouse gases which results in reducing the causes of the global warming. To sum up, my bump provides renewable energy,organizes traffic and contributes in solving the electricity challenge in Egypt.</p>	Azza refaie Sayeed amer

10am onward	Interactive Stories With Circuit Stickers	This workshop will introduce StoryMaking, a process that cultivates creative learning by combining new forms of storytelling and new forms of making with technology. Participants will explore StoryMaking with Circuit Stickers, tiny peel-and-stick electronic parts that you can use to make interactive light projects. We will use circuit stickers and craft materials to design and create paper based interactive light up artifacts and use these creations to tell our personal stories in whole new ways.	Alisha Panjwani
10am onward	Making Medical Devices in Rural Makerspaces	We would like to propose the following: 1) To demonstrate our prototype of a digital stethoscope 2) To explain how we build our stethoscopes in rural makerspaces and therefore the potential for revolutionizing healthcare innovation. 3) To explain the concept of crowdsourcing differential diagnoses for and from medical professionals. 4) How we plan to use medical devices in Healthcare education.	Arvind Badrinarayanan
10am onward	Nerdy Derby Car Racing Competition	Miniature car building and racing competition made with CNC. Undulating track and no restriction on the size of cars or materials	Jaymes Dec
10am onward	Make Your Own Robot	We will make the Robot with natural material and then have a time race.	Youka Watanabe
10am onward	Mobile Robotics	Participants have to build a mobile platform based on an arduino processor. The mobile robotics workshop gives you an opportunity to design, simulate and fabricate mobile robots for navigation in road, water, underwater, or in the air.	Vinod Balakrishna
10am onward	3D Modeling + Printing for All	Meet Morphi, a new 3D modeling + printing app that puts the power of design in the hands of students and educators everywhere. www.morphiapp.com In Morphi, learners of all ages and skill levels can make 3D printable objects on the go using touch, without wifi or a mouse. The app has many uses including creating models, inventions and prototypes and as a learning tool for Maker education.	Sophia Georgiou
10am onward	3D Printed Plant Cloud	3D printed plant cloud will use the Form 1+ 3D printer to create high resolution parametrically designed planters. Students will be introduced to techniques for stereolithography 3d printing, as well as the finishing and clean up of prints. At the end of the workshop, individual planters will be assembled into a floating installation of geometric plants and succulents. Students are invited to take home planters after their class.	Meg Maupin
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10am onward	Fab Academy Final Project - Rapidly Deployable Automation System	I'll be demonstrating my Fab Academy 2015 final project, the Rapidly Deployable Automation System. It is a robot that unfolds from a cube and begins roving around. The robot is designed around a 1u CubeSat. It can be controlled with a tele-operational headband that the user wears to detect head movements.	Erin Kennedy
10am onward	US Fab Lab Network Information booth	Visit the USFLN display booth for informative handouts. There you can talk to folks behind the United States network that aims to help launch Fab Labs and help them prosper in Academics, Business, and Community missions (www.USFLN.org).	David Richardson
10am onward	Mobile Robotics	Participants have to build a mobile platform based on an arduino processor. The mobile robotics workshop gives you an opportunity to design, simulate and fabricate mobile robots for navigation in road, water, underwater, or in the air. Customize Your World: Intro to Fab Lab for Beginners	Vinod Balakrishna
10am onward	Introduction to a Fab Lab	Show children as young as 8 how to turn original art into vector graphics suitable for vinyl and laser cutting. In this workshop you will draw; capture the art on camera; import drawings into Inkscape; trace the image and clean it up for cutting. Create your own design for t-shirts, stickers and laser etches and cuts.	Netia A. McCray
10am onward	Open Source Automobiles	Commute has been more than just moving from A to B. It's more about the method you use. Some cycle, some walk, some ride. My most ambitious project, Building the Batpod (ProjectLincoln.co) helped me understand how a hardware project can be open sourced and people can contribute to it.	Abhijeet Khandagale

10am onward	DIY "Insect" Forest	DIY "Insect" Forest Participate in collaborative art by building an "insect" forest using simple coin cells and buzzers, vibration motors and resistors to make personalized insect to place in the "forest"	Sankalp Modi
10am onward	Colabyrinth Game	Originally created for Figment Boston 2015, this game was designed, built and engineered by Boston Maker's Micro-controller Club using Arduino, pressure sensors, a 3-D printer and lots of wood. It requires two players (or two teams) to work together to control and maneuver a ball through a labyrinth.	Boston Makers
10am onward	Fabtronic Sense	Teknikio sets show you how to embed smart materials and electronics into different materials. Deren created Teknikio in attempt to fill the gap of low-tech toolkits targeted at girls. Though our focus is to attract girls, we work to make our kits accessible to everyone using open-ended methods of craft and design. This workshop will showcase Teknikio sets and parts, demonstrating how to use them in different contexts. We will also discuss strategies for creating engaging lessons for STEM.	Deren Guler
10am onward	Making Medical Devices in Rural Makerspaces	We would like to propose the following: 1) To demonstrate our prototype of a digital stethoscope 2) To explain how we build our stethoscopes in rural makerspaces and therefore the potential for revolutionizing healthcare innovation. 3) To explain the concept of crowdsourcing differential diagnoses for and from medical professionals. 4) How we plan to use medical devices in Healthcare education.	Arvind Badrinarayanan
10am onward	Nerdy Derby Car Racing Competition	Miniature car building and racing competition made with CNC. Undulating track and no restriction on the size of cars or materials	Jaymes Dec
10am onward	Machine Building	Egypt's accumulated problems are all the direct consequences of overpopulation such as electricity deficiency and traffic jam. Therefore I realized that finding a solution for electricity deficiency is good , but exploiting traffic jam in order to solve electricity deficiency , is better , and that what I did! My prototype is a one way bump that converts kinetic energy into electric energy in the form of stored DC by a battery, and also it organizes the traffic fulfilling the main design requirements of our prototype. After many trials and tests, it eventually succeeded to generate electricity during the tests. This new method of generating electricity is eco-friendly and not expensive, it reduces the needs for burning fuels and reduces the greenhouse gases which results in reducing the causes of the global warming. To sum up, my bump provides renewable energy,organizes traffic and contributes in solving the electricity challenge in Egypt.	Azza refaie sayeed amer
10am onward	FabLab Basics and More!	These "how to" workshops are designed to familiarize the least experienced person with CNC. Members of the FABCity Boston area will give basic instruction and some hands on with open source CAD and CAM programs and the application at the CNC machines.	Donalyn G. Stephenson

10am onward		Interactive Stories With Circuit Stickers	This workshop will introduce StoryMaking, a process that cultivates creative learning by combining new forms of storytelling and new forms of making with technology. Participants will explore StoryMaking with Circuit Stickers, tiny peel-and-stick electronic parts that you can use to make interactive light projects. We will use circuit stickers and craft materials to design and create paper based interactive light up artifacts and use these creations to tell our personal stories in whole new ways.	Alisha Panjwani
10am onward		3D Modeling + Printing for All	Meet Morphi, a new 3D modeling + printing app that puts the power of design in the hands of students and educators everywhere. www.morphiapp.com In Morphi, learners of all ages and skill levels can make 3D printable objects on the go using touch, without wifi or a mouse. The app has many uses including creating models, inventions and prototypes and as a learning tool for Maker education.	Sophia Georgiou
10am onward		TiniJet WaterJet Cutting	Water Jet Cutting is an almost universal tool that cuts most materials without any heat and as such is a dream for anybody who is into crafts and making. However, this technology typically relies on large (i.e.: 2 by 6 m), powerful (> 4000 Bars and 3 l/min) and expensive equipment (> 100 K\$), which tends to discourage most enthusiasts. My Dad, who has been in the industry for over 20 years, always dreamed of getting Water Jet Cutting to be more known and readily available. When I joined him last year after a PhD in Applied Neuromechanics at UNC Greensboro, we decided that, even though Dad was getting close to retirement, the time was right to make it happen. Most digital fabrication and research centres do not need typical Water Jet Cutting equipment. Therefore, we focused on the idea of a compact machine capable of cutting relatively small pieces of various materials with no real constraints around cutting time.	Jerome Sauret

WORKSHOPS

Time	Location	Title	Description	Name
Saturday, August 8, 2015				
12:00 PM		3D Hubs & ProtoPasta Special Filament	Hi Hubs & 3D printing enthusiasts! I'd like to invite you to a 3D Hubs Special Filament Workshop in Boston, organized in collaboration with ProtoPasta. We'll be showcasing two special ProtoPasta filaments with a workshop on best practices, 'how to use' these filament on FDM printers & polishing techniques. Every attendee will receive a custom made ProtoPasta sample pack. Register on http://bit.ly/1GZgUjX	Adam Proctor

12:00 PM		Emosilla Build Up Your Chair	The Emosilla Workshop is designed for 4 to 10 years old kids . During the workshop they will learn the process of digital fabrication by participating in the personalization, design and fabrication of a chair their size that they will take home. It consists of 3 activities, each one with a specific goal: 1. The kids will learn about their emotions by listening to different types of music, looking at pictures that express diverse emotions and talking about their daily experiences. 2. They will be able to capture one emotion in a graphic way by drawing a face in the back of the chair, first on paper, then digitally and finally using the CNC machine or the laser cutter to engrave their drawing. 3. They will be introduced to the network.	Alejandra Díaz de León Ilaria La Manna
12:00 PM		ShopBot for Beginners	A lot of groups are scared of using the ShopBot, especially with young groups. In this workshop I will demonstrate how I teach the ShopBot (including design, toolpath generation and fabrication) to groups as young as 12 years old within a single 90-120 minute session. I would like 3 hours for the workshop so we can have a bit of discussion and analysis, but this workshop will principally be an active demonstration of the workshop.	Matt Chalker
12:00 PM		Making as Universal Design for Learning	Universal Design for Learning (UDL) is a framework to improve and optimize teaching and learning for all people based on scientific insights into how humans learn. Come experience how to make learning inherently accessible by providing multiple means of representation, engagement, and expression. How does making stimulate interest and motivation for learning? How can making help you to present information and content in different ways? How can making be used to differentiate the ways that students express what they know? Try out some of the fabrication tools to experience this for yourselves!	Beth Lloyd
12:00 PM		Bamboo in Design	Bamboo in Design' involves designing and making your own bamboo products from clothes hangars, light fixtures, lamp shades, simple furniture or home decor items. Starting with the initial design and going on until polishing your creations, you will have the opportunity to go through the entire process of creating a finished product. Perfect opportunity for designers and makers to explore a product using bamboo.	Pavan Kumar
12:00 PM		Laser PCB	The most common way to make PCBs in a fablab is to mill them. But there is an alternative. Let's just forget about etching, because of the nasty chemicals involved. Fiber lasers are able to engrave metal too, and if you set them properly it's possible to make amazing hi-res pcb. During the workshop we will see the entire process from an Eagle file to a PCB.	Enrico Bassi
12:00 PM		Design Your Own Embroidery	Sew a soft circuit with laserable soft/flexible battery holder and milled, sewable LEDs - Use an automated embroidery machine to design a patch - Add interactive sound to your fabric project with silver-thread touch sensors	Virginia McCreary

12:00 PM		A Composite Expansion Tank for a Tiny Hydro Generator	For 15 years I have worked as a physicist and technology scout for Swarovski. Right now I'm building up a Fab Lab to enable makers, artists, students, and entrepreneurs. The tiny hydro was my final project for "How to make" in 2014. It is part of the project "Smart Africa" - an affordable, solar driven device producing tap water, energy, and light without batteries. The concept was developed in the class Development Ventures. Here we will build a composite expansion tank for energy storage.	Christian Teissl
12:00 PM		Sustainable Design Toolbox	Forum for the Future has been working with the maker community to understand how additive manufacturing can be a tool for good. Together we have developed a Sustainable Design Toolbox: a set of tools to help makers of all types to consider and build upon their design. This is one part of the larger iMade project.	Rodrigo Bautista
2:00 PM		FabLabs for Local Disaster Relief	In the context of the Nepal earthquake, participate in a design challenge that will explore how a local makerspace /labs like can help-Shelter, Communication , Medical aid/food/water and Power/Electricity. Participants will work in consultation with the Banjarapalya makerspace, to create designs that use locally available material. Banjarapalya Makerspace (INDIA) can help provide relief to their local community.	Sankalp Modi
2:00 PM		The Rolling Scroll Theater	Entertainment or music	Mitchel Ahern
2:00 PM		Risha Laser Cutter	Risha is a new concept for portable laser cutters that works via mobile phone. It is 100% fabbed and open-source. Ideal for people without or with limited CAD knowledge and artists/hobbyists who'd like an inexpensive way to explore laser cutting.	Moushira Elamrawy
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2:00 PM		Design and Fabrication of a Wind Turbine Using 3D Printing	We will improve design and test efficiency of the wind turbine via 3D printing.	Kang Yao
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Sunday, August 9, 2015				
10:00 AM		Bamboo in Design	Bamboo in Design' involves designing and making your own bamboo products from clothes hangars, light fixtures, lamp shades, simple furniture or home decor items. Starting with the initial design and going on until polishing your creations, you will have the opportunity to go through the entire process of creating a finished product. Perfect opportunity for designers and makers to explore a product using bamboo.	Pavan Kumar
10:00 AM		3D Modeling using 2D Vector Software	This is a workshop on how to use 2 dimensional vector drawing software to create advanced 3d models. Examples and demonstrations on the use of Inkscape, an opensource vector drawing program, and how it can be used to design objects and parts to be printed on a digital fabrication machine will be provided.	Jemuel Stephenson
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12:00 PM		Floating Fablab Amazon	The Floating Fab – Amazon The initiative is to create a digital fabrication laboratory (Fab Lab) that will navigate the Amazon River. It will provide local communities with access to technological tools that allow them to cope with their daily challenges with water, energy, health, food, education while at the same time, serve as a place for research and development to better understand the Amazon. Because it is a green lung of the world, the Amazon is the ideal scene for exploring alternative solutions in favor of a responsible industry which is sensible and integrated to local and global developments.	Beno Juarez
12:00 PM		Risha Laser Cutter	Risha is a new concept for portable laser cutters that works via mobile phone. It is 100% fabbed and open-source. Ideal for people without or with limited CAD knowledge and artists/hobbyists who'd like an inexpensive way to explore laser cutting.	Moushira Elamrawy
12:00 PM		Sci-Fi is here	We will make reactors of Iron Man and (maybe) a saber laser from Star Wars. Such things can attract children and kids to a fab lab.	Igor Asonov
12:00 PM		Make to Move	Our society is no longer moving as we once did. Opportunities for natural movement have diminished from long days of static sitting at work or school! It is affecting our attention, health and emotions. Learn how one community of makers put movement back into daily lives, using engaging items...a musical hopscotch, a jumping wall wired with a Makey Makey, a cardboard rocker and a pedaling machine that lights and plays music. Make something with us and experience how fun it is to move again!	Minxian Falender

ComputerLabs / Electronics

Time	Location	Title	Description	Name
Saturday, August 8, 2015				
12:00 PM		HTML5&Node.js Programming for Harware	The workshop is aimed at giving an introduction on HTML5 applications focused on controlling hardware devices. After a short introduction on relevant standards, participants will be shown how to control serial communication via the browser using WebSockets, Node.js and Ajax.	Fiore Basile
12:00 PM		Building Smart Devices: Bluetooth Low Energy 4.0	The workshop is aimed at giving an overview of the BLE 4.0 technology and its applications for building devices able to talk to modern smartphones. After an introduction to the BLE technology and available hardware, participants will be shown practical examples of BLE implementation on both iOS and Android.	Fiore Basile

12:00 PM		Giant Analog: Digital Wave Machine	To collaborate to construct a giant pendulum swinging together to create sine wave patterns. Add electronic sensors run off Rasberry Pi microcontrollers to simulate and explore patterns digitally	Nancy Otero Ornelas
12:00 PM		The New FabModules: Deploy Use and Extend		
12:00 PM		Introduction to Electronic Wizardry	This is a 90 minute workshop for a maximum of 25. All ages are welcome but is recommended for children 8+ who will design and build a variety of different circuits with different kinds of materials.	Netia A. McCray
12:00 PM		Build an Electronic Paper City	Circuit Scribe is a conductive ink pen that enables you to draw functional circuits on paper. In this workshop we will build an electronic paper neighborhood. Use our components, paper circuit templates, and craft materials to create a row of houses that light up, a traffic intersection, or a replica of Boston's weather beacon with flashing red and blue lights.	Analisa Russo
2:00 PM		Open Source Algame Project	Weeding robot in rice field	Masato Takemura
2:00 PM		Giant Analog: Digital Wave Machine	To collaborate to construct a giant pendulum swinging together to create sine wave patterns. Add electronic sensors run off Rasberry Pi microcontrollers to simulate and explore patterns digitally	Nancy Otero Ornelas
2:00 PM		Robotics for Everyone	We will blend innovation, creativity and robotics to solve series of challenges. Every day we will learn new programming and mechanical skills using Educational Robot System. The workshop will be your destination to learn, have fun and win prizes.	Hesham Mahmoud
2:00 PM		Build an Electronic Paper City	Circuit Scribe is a conductive ink pen that enables you to draw functional circuits on paper. In this workshop we will build an electronic paper neighborhood. Use our components, paper circuit templates, and craft materials to create a row of houses that light up, a traffic intersection, or a replica of Boston's weather beacon with flashing red and blue lights.	Analisa Russo
2:00 PM		Rube Golbery Machines using bits and atoms	While exploring the basics of Scratch programming and physical computing using the Lego WeDo, Makey Makey and LittleBits, we'll build "Rube Goldberg" chain reactions. A playful way to incorporate computational thinking in schools, this activity embodies the principles of the FabLab and Maker movements. These "Rube Goldberg machines" will span both the physical and digital words, triggering motors and other actuators, causing various sensors to continue the process back in the virtual world.	Joe Santiago
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12:00 PM		FAB Audio : DIY Speakers	In this workshop, participants will explore the relationship between electricity and magnetism to discover how audio speakers work. Attendees will make their own working audio speakers with familiar materials. Starting with a very simple design, we will explore how they can iterate improve the quality of the speakers. Participants get to take their speakers home and impress their families and friends!	Jaymes Dec
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12:00 PM		The New FabModules: Deploy Use and Extend	The workshop shows how to install, use and extend the new html5 fab modules in a breeze. During the first part, participants will be guided in the installation process, and practical use of the Fab Modules will be demonstrated using one of the supported machines available at the venue. During the second part, focused on development of new features and modules, the code structure and main functional blocks will be analyzed, and a sample extension demonstrated	Fiore Basile

12:00 PM		Robotics for Everyone	We will blend innovation, creativity and robotics to solve series of challenges. Every day we will learn new programming and mechanical skills using Educational Robot System. The workshop will be your destination to learn, have fun and win prizes.	Hesham Mahmoud
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