



February 14 - June 15, 2018 • Wednesdays & Fridays 3-4:30pm “Study Hall,” 4:30 -7:30 pm Programming

Open Works’ mission is to **make tools, technology and the knowledge to use them accessible to everyone.** This commitment extends to our educational programming as well. You have been chosen for your excitement, talent, and demonstration of commitment to learning and making, so we are so excited to have you participate in our pilot Teen Maker Program.

Your Instructors



Program Director & Primary Instructor
Theresa “Nacho” Montiel

- BFA in Painting and Drawing
Associates degree in Digital Arts
- 15 years experience as a Graphic designer and Art Director
- MICA Graduate Student in Community Arts
- Artist in Residence at **Open Works**



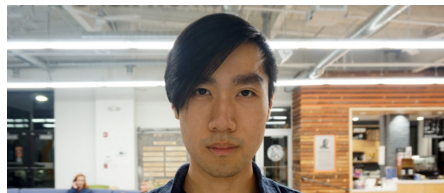
Textiles & Sewing Construction
Sharmane Herron

- Tailor and fashion designer with 40 years of experience in the garment industry
- Technician and instructor at **Open Works**



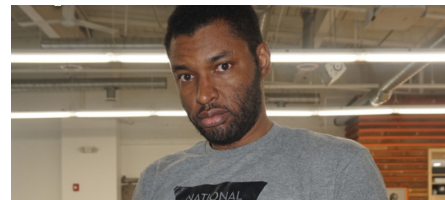
Electronics & Robotics
Muhammad Najeelullah

- Owner & CEO of **Full Blast STEAM**, an Education-Tech start-up
- Technician, instructor, AND Mobile Youth Programs Coordinator **Open Works**



Laser Cutting & CNC
Ben Fann

- BFA in Architectural Design from MICA
- Architecture intern and a fabricator
- Technician and instructor at **Open Works**



Woodworking
Laurence Moore

- Owner of Heavy Paper LLC
- University at Buffalo, 2005
- *Station North Tool Library* and **OpenWorks** Technician and instructor.



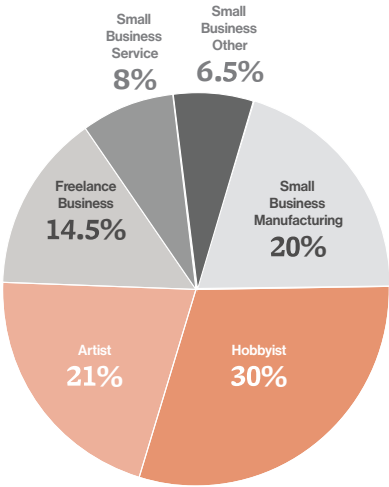
What is Open Works?

Open Works provides access to one of the largest maker-focused work spaces and one of the first makerspaces in an urban environment, right here in Baltimore. This city is full of artists, hackers, micro-manufacturers, inventors, students, teachers, entrepreneurs, and builders and **Open Works** offers a special place where these creatives, makers, and dreamers come together to bring their ideas to life.

At Open Works, you'll get access to nearly a million dollars' worth of state-of-the-art equipment to accelerate your business and/or creative ideas -- making these **tools, technology and the knowledge to use them accessible to everyone**. So because our motto is about "everyone," we do not promote or discriminate against any person, population group, or organization. These include, but are not limited to, race, color, religion, sex, gender expression, physical appearance, language, education background, national origin, age, disability, and veteran status. **Open Works** holds its members, teachers, contractors, visitors, partners, and STUDENTS to the same standard.

Who is at Open Works?

One of the things we believe is that a makerspace is more a **mindset** than a specific place. **Open Works** has a wonderful tapestry of people of all different types, and simply purchasing a bunch of materials, tools, and equipment would not make a **Open Works** a makerspace. In order for a makerspace to be effective and grow, we have to create an environment (and a mindset) that fosters learning, creativity, **and inclusivity**. Here is just a few details of the people who are contributing to that mindset:



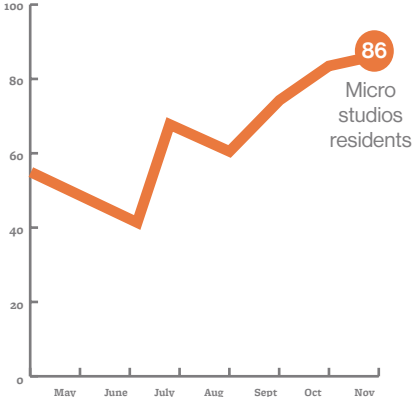
We all help make it Work

About half of our members identify as an artist and /or hobbyist, while 49% of our members are using the space for a business in some kind... and we are looking to grow our ENTREPRENEUR roster while also with growing the small business that are already housed here.



What wood you make?

There are 8 wonderful studios, but it seems the top three studios for the current makers are Woods, Lasers, and Textiles. Why is that? Do you have a different interest? What are you most excited to make?



Micro can be huge

Many of our members even house their businesses here. One micro-studio is only 7x7, but in a community full of like-minded makers which makes collaboration and cross training and education really easy -- you are now apart of this collaborative community.

What can you learn at **Open Works**?

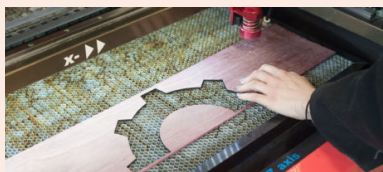
Open Works is 34,000 square feet of studios that include....

Teen Maker Entrepreneur Programming



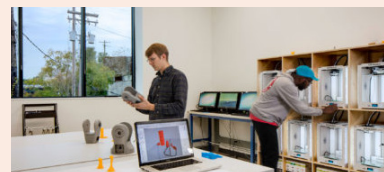
Computers

We have 16 Dell Precision workstations and X Mac Desktops with...SolidWorks, AutoCAD product suite, Sketchup Pro, Rhino, Adobe Suite, 3D Studio Max, and Microsoft Office.



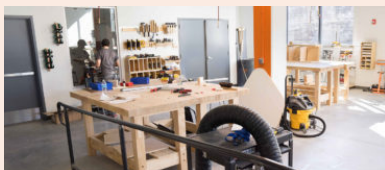
Digital Fabrication

Advanced large-format machines that can cut through plywood, plastic, and soft metals with hair-splitting accuracy.



3D Printing

In an additive process an object is created by laying down successive layers of material until the object is created. Each of these layers can be seen as a thinly sliced horizontal cross-section of the eventual object.



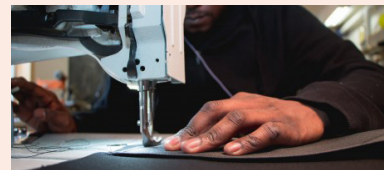
Wood

Covering how each machine can help you prepare wood for your projects and which order of operations will give you the best results. These tools are key for resurfacing and dimensioning rough sawn and reclaimed lumber into flat, smooth, and usable pieces.



Electronics

Our electronics shop is the perfect place to build robots, flexible circuits, Arduino projects, or repair broken appliances.



Sewing/Textiles

Our cut-and-sew studio is ideal for bags, clothes, even soft sculpture. Industrial sewing machines can handle anything from muslin to denim, and a computerized embroidery machine can output intricate custom designs.

other studios you can come back for

Metal

Metal fabrication is the building of metal structures by cutting, bending, and assembling processes creating machines, parts, and structures from various raw materials.



Digital Media

Our digital media studio can output full-size blueprints, cut-vinyl stickers, and stunning archival-quality photo prints. Use it to document your next project or make wall graphics for a gallery show.



What are WE going to learn **Teen Maker Entrepreneur Program (TMEP)**?

Open Works Teen Maker Entrepreneur Program is focused in skill acquisition that will prepare you for both a collegiate or work force future through experience and/or certification in the Open Works studios and classrooms.

Real World Job Skills, including

- Team Building
- Product Prototyping
- Public Speaking
- Marketing Skills
- Resume Writing

Open Works Studios

- Digital Arts and Programs
- Digital Fabrication
- 3D Printing
- Woodworking
- Electronics and Robotics
- Sewing and Textiles

Making a Maker *in a Makerspace*

- Learning by doing/creating
- Growing to be comfortable with failing/failure
- Opportunity to progress
- Sharing your creation/new knowledge with other
- **Growing the community of makers**

Certifications can be earned for each studio with 20 hours of INCIDENT FREE logged studio time. **How do you log your time?** You will be logging your attendance and studio time at the front desk via your MindBody account that you created during orientation. So make it a priority to check in with the front desk each day before class so that you can log your hours. On top of Open Works' **Safety Regulations**, we will be concepting a **Code of Conduct** as a cohort that we will all agree to, both set of rules need to be abided by to stay "incident free."

By the end of the TMEP

Upon completion of the program, you will have experienced

- Up to 75 (or more) hours in six Open Works studios
- Networking opportunities with Open Works makers
- Prototyping your own product
- Writing/designing your own resume & visual presentation
- Presenting in front of peers/mentors about your prototype
- (Possibly) achieved certification(s) in one or more of Open Works studios, allowing independent access to maker's studios for future making/designing
- Built a team of fellow team makers
- Expanded your knowledge and vocabulary in "making," and entrepreneurship

Maker Vocabulary & Values

- **Making** - learning by doing or creating
- **Maker** - someone who creates and shares
- **Makerspace** - a place to design and create
- **Maker Movement** - growing community of makers, often centered around new technologies
- **Exploration** - Participants are encouraged to explore materials, technology tools and equipment, and new methods of problem solving through their projects/work
- **Collaboration** - Makerspaces are a place to share tools, share space, share ideas, and share expertise - allow opportunities to do all these things
- **Core Values of a Makerspace**
Makerspace(s) allow people...
 - » freedom to experiment
 - » to feel comfortable with failing
 - » the opportunity to progress and iterate
- **What is the Purpose of a Makerspace?**
 - » offer inspiration
 - » provide shared access to supplies and equipment
 - » are cooperative / collaborative
 - » Teach skill(s) that improve and grow businesses
- **TMEP Ownership**
 - » Ownership of learning
 - » Ownership of the product / project
 - » All participants should be able to describe their project in detail and what they learned in the process
- **Also remember to bring...**
 - » Perseverance
 - » Grit / Determination
 - » Comfort with the Unknown
 - » Creativity
 - » Productivity

PROGRAMMING SCHEDULE*

FEBRUARY	02/10/18	ORIENTATION
	02/14/18	Meet and greet with Makers
PD for staff (schools closed for students)	02/16/18	FIELD TRIP
	02/21/18	CERTIFICATION 1
	02/23/18	
	02/28/18	
MARCH	03/02/18	
	03/07/18	CRITIQUE/PRESENTATION
	03/09/18	CERTIFICATION 2
	03/14/18	
Parent-teacher conferences and PD for staff	03/16/18	
	03/21/18	
	03/27/18	CRITIQUE/PRESENTATION
SPRING BREAK	03/26/18	CERTIFICATION 3/4
	03/27/18	
	03/28/18	
	03/29/18	
	03/30/18	
APRIL	04/04/18	
Observance day (modified after-school activities*)	04/06/18	
	04/11/18	CRITIQUE/PRESENTATION
	04/13/18	LIGHT CITY EVENT
	04/18/18	CERTIFICATION 5
	04/20/18	
Evening parent-teacher conferences	04/25/18	
	04/27/18	
MAY	05/02/18	CRITIQUE/PRESENTATION
	05/04/18	CERTIFICATION 6
	05/09/18	
	05/11/18	
Observance day (modified after-school activities*)	05/16/18	
	05/18/18	CRITIQUE/PRESENTATION
	05/23/18	BUSINESS/PROTOTYPING
	05/25/18	
	05/30/18	
JUNE	06/01/18	
	06/05/18	
	06/08/18	
	06/12/18	Elevator Speeches/Resume Writing
LAST DAY OF SCHOOL	06/14/18	
	06/15/18	Presentation Practice
	06/16/18	"WORK TANK" PRESENTATIONS