

# FabSLAM PGH

March-May 2016  
At the Carnegie Science Center

DIGITAL HARBOR FOUNDATION



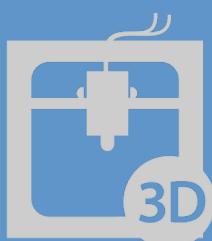
CARNEGIE SCIENCE CENTER

One of the four Carnegie Museums of Pittsburgh

remake  
learning



FabSLAM is a multi-week, team-based, digital fabrication challenge where youth learn and practice design, iteration, and production skills primarily focused on 3D design and 3D printing.



Youth participants learn the basics of digital design and modeling. Each team works with a Coach to help guide the team through the challenge and aid in documentation and multiple design iterations throughout the challenge.



FabSLAM culminates in a FabSLAM Showcase where teams will present their products to a panel of judges and a public audience for review and feedback.

**The PGH Showcase will take place May 2016.**





## The Basics.

12 teams from across the region will participate in FabSLAM

### Who's on the team?

Each team will be comprised of one coach (educator) and **up to six youth**.

### The coach MUST...

Attend a three-day, 32 hour intensive professional development session at the Carnegie Science Center March 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup>, 2016. Act 48 credits can be earned.

### What if I don't have a 3D printer?

A 3D printer will be given to each coach, *free of charge*, at the first day of professional development. This printer will be used by the team throughout the design challenge, and coaches may **keep the 3D printer** at their organization after FabSLAM is over.

### What does it cost to participate?

The 3D printer, professional development, and showcase are free-of-charge.

### The team MUST...

1. Create a physical project
2. Document their design process via a team website, including pictures and weekly blog updates
3. Present a slideshow presentation, no longer than 5 minutes, at the FabSLAM Showcase

## Student Roles & Responsibilities

On each team, students are the “makers” and bear most of the responsibility for completing the project in time for the FabSLAM showcase event. These responsibilities include:



- Attending meetings / work times and participating by sharing ideas, giving feedback, and contributing talents to get the work done
- Using 3D design software and following tutorials to learn the basics of 3D design and how to use the software
- Using 3D design software to design and model the agreed-upon product you are trying to prototype
- Working to reach milestones and complete the project on time
- Documenting your process, any challenges you had to overcome, and the iterations of your product in a digital media format of your choice (we have provided a few suggestions)
- Explaining specific details about how your product was designed, printed, and enhanced
- Practice talking about the process your team used to develop your product
- Each team member should have an area of specialty they are prepared to discuss with judges and others, as well as the ability to speak about the project in general in order to demonstrate ownership of the project
- Attending the FabSLAM Showcase prepared to show and speak about your project intelligently
- Creating the presentation for the FabSLAM Showcase
- Assigning presentation responsibilities to your youth team members

## Coach Roles & Responsibilities

Each team will have a teacher, in-school sponsor, or community member who works with the team and will be the point of contact for communications. The Coach's responsibilities include:



- Registering the team with Remake Learning
- Ensuring that all school-required permission slips and FabSLAM forms are completed by youth
- Coordinating with youth to set up meetings and work times for them to complete their project
- Guiding youth through the problem solving / design thinking process
- Ask questions about their designs / prototypes
- Prompt them to think about certain use cases they have not considered
- The goal is to have the youth solving the problems and creating the product, with some guidance and encouragement from Coaches
- Managing behavior of the youth
- Keeping the team on the timeline
- Planning with youth for documentation, aiding in documentation by recording or photographing youth working or explaining their project
- Ensuring youth attend the FabSLAM Showcase event and are prepared to share their project and speak intelligently about their project

# The Timeline.

- September 2015-January 2016: 12 teams will be selected to compete in FabSLAM.
- March 17, 18, 19: Three day intensive PD for coaches
- March 21st – FabSLAM Start (*dates below approximate*)
  - March 28th – Ideas have been brainstormed and project idea has been selected
  - April 4th – 3D Design tools practiced and idea has been sketched out on paper
  - April 11th – Initial prototypes of idea have been created in design software
  - April 18 – Initial prototypes have been printed
  - Rest of April – Prototype refinement
- May 9 – Final product prototype printed
- May 10 – One page webpage documentation completed and live on the Internet
- May 11 – Final slideshow ready and practiced
- May 12 (date to be confirmed) – FabSLAM Showcase at Carnegie Science Center!



FabSLAM PGH is hosted by:

**DIGITAL HARBOR FOUNDATION**



**CARNEGIE SCIENCE CENTER**  
One of the four Carnegie Museums of Pittsburgh

**remake**  **learning**

The logo for Remake Learning, with the word 'remake' in orange and blue, and 'learning' in green. A colorful flower-like graphic is positioned between the two words.

For more information, please contact **Sunanna Chand**: [Sunanna@remakelearning.org](mailto:Sunanna@remakelearning.org)