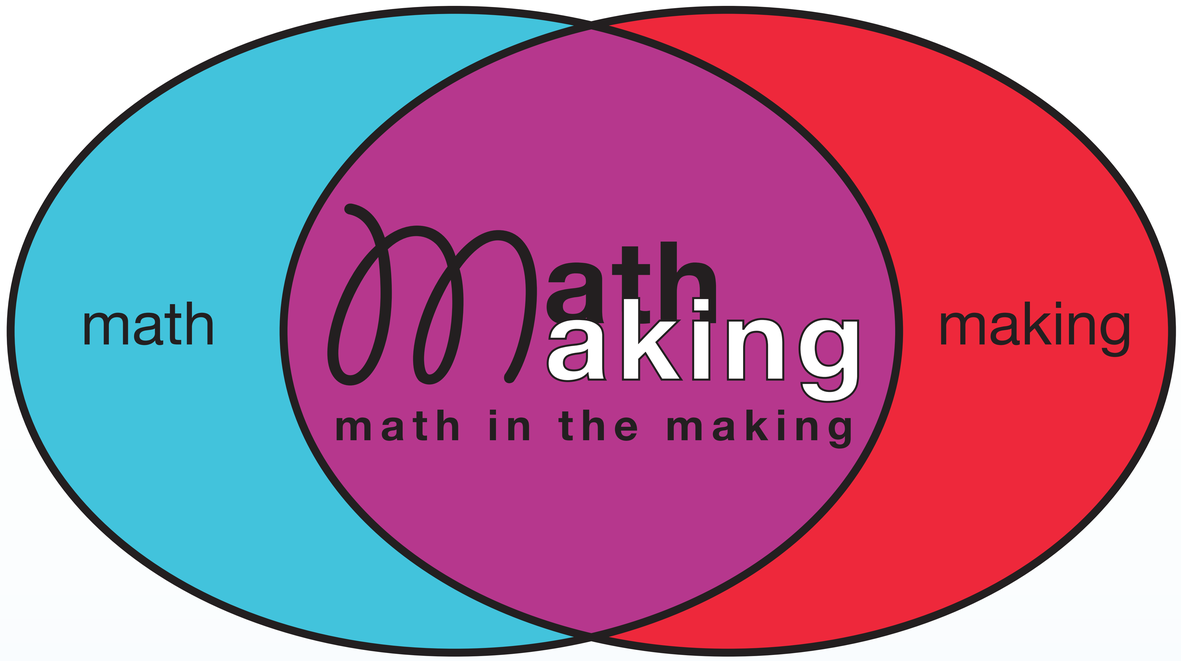
NSF Award DRL-1514726

Math aking
math in the making



Project Challenges:

- The informal mathematics community and the making and tinkering community have different pedagogical goals and conceptions of learning. We have begun to talk across communities in the program committee and will continue the process at the workshop.
- There are equity and cultural issues in both the math and making communities; how do we keep this perspective in the forefront of our conversations?

Critical Questions:

- How can the math in making and design activities be highlighted without compromising the authenticity of participants' experiences?
- How important is it for learners to recognize the math that is in making and design?
- How can we productively deal with the mathphobia that is wide-spread in US culture?

Project Description and Goals:

Although there is a growing body of research on mathematics in informal learning environments, less has been done to understand how math can be integrated into other ISE settings or topics, and how this integration might engage those who do not already have positive attitudes about math. Over the last decade there has been a proliferation of out-of-school environments that foster building, making, tinkering, and design activities, creating an unprecedented opportunity to engage a wide range of participants in mathematics that is both purposeful and powerful.

The primary activity of Math in the Making will be an invitational workshop on April 30 and May 1, 2016 of researchers and practitioners in out-of-school mathematics and making at the New York Hall of Science. The goals of the workshop are:

- advance the field's understanding of how to highlight and enhance the mathematics in making experiences,
- develop tools and resources for informal educators,
- foster collaborations for future efforts,
- frame a research agenda on mathematical reasoning and attitudes toward math in making and design environments.

In addition, Math in the Making will host a pre-workshop online discussion to feed into the workshop agenda and discussions and a post-workshop online discussion to consider implications and dissemination strategies. ***These are open to anyone***; send email to **MathintheMaking@terc.edu** if you would like to join either or both discussions.

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