



Discovery

For 2016 Week of Making, highlighting connections between informal STEM environments and learning

NSF-funded science and engineering research helps advance maker activities and understanding of potential benefits



Maker activities offer many opportunities for people to engage with STEM topics.

[Credit and Larger Version \(/discoveries/disc_images.jsp?cntn_id=138981&org=NSF\)](https://www.nsf.gov/discoveries/disc_images.jsp?cntn_id=138981&org=NSF)

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The [2016 National Week of Making <https://www.whitehouse.gov/the-press-office/2016/06/16/presidential-proclamation-national-week-making-2016>](https://www.whitehouse.gov/the-press-office/2016/06/16/presidential-proclamation-national-week-making-2016), an event with significant potential for science, technology, engineering and mathematics (STEM) education, starts today.

The National Science Foundation (NSF) funds millions of dollars in making-related research each year across fields, from [engineering to computer science <https://www.nsf.gov/discoveries/disc_summ.jsp?cntn_id=131735&org=NSF>](https://www.nsf.gov/discoveries/disc_summ.jsp?cntn_id=131735&org=NSF) to [STEM education, both in and outside the classroom <https://www.nsf.gov/discoveries/disc_summ.jsp?cntn_id=131761&org=NSF>](https://www.nsf.gov/discoveries/disc_summ.jsp?cntn_id=131761&org=NSF).

This year, Joan Ferrini-Mundy, assistant director for Education and Human Resources, highlights the connections between making and learning.

"NSF-supported research shows us that informal STEM environments can provide learners with great ways to develop and apply STEM knowledge. Maker activities offer many opportunities for people to engage with STEM topics in unique and interesting environments, from the computer engineering required to bring a robot to life to the mathematics and computational thinking involved in programming advanced manufacturing

technology. At the same time, these activities give makers of all ages a chance to see what they can accomplish when they apply their knowledge to a project -- and a glimpse of what they could potentially create by learning more.

"NSF investments have helped create and improve the technologies that have fueled the modern maker movement, including 3-D printing, advanced manufacturing tools and computer-assisted design. The researchers we support find new ways to integrate these technologies into cutting-edge science, and develop new techniques that future generations of makers can use.

"We're committed to continuing those investments, as well as research that explores how maker activities connect with STEM learning. NSF and its supported researchers are examining how making activities could help inspire STEM learners and professionals, point them to advanced educational opportunities and make them feel like they are part of an expanded science and engineering community."

For more information on the National Week of Making, see the [White House fact sheet <https://www.whitehouse.gov/the-press-office/2016/06/17/fact-sheet-new-commitments-support-presidents-nation-makers-initiative>](https://www.whitehouse.gov/the-press-office/2016/06/17/fact-sheet-new-commitments-support-presidents-nation-makers-initiative), including new NSF commitments in support of the [President's Nation of Makers Initiative <https://www.whitehouse.gov/nation-of-makers>](https://www.whitehouse.gov/nation-of-makers).

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Related Websites

New paths to innovation and learning through DIY technologies: http://www.nsf.gov/news/news_summ.jsp?cntn_id=135397 <http://www.nsf.gov/news/news_summ.jsp?cntn_id=135397>

National Science Foundation celebrates do-it-yourself engineers, tinkerers and inventors everywhere: http://www.nsf.gov/news/news_summ.jsp?cntn_id=131769 <http://www.nsf.gov/news/news_summ.jsp?cntn_id=131769>

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