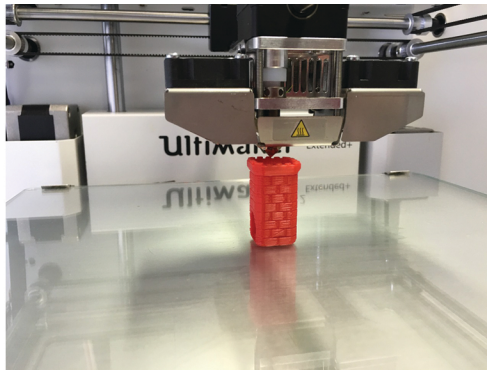


MakerMovement

4-H Youth Development

STEM Education and Innovation



Impact areas

Job Skills and Careers

Importance

According to the Federal Science, Technology, Engineering, and Mathematics (STEM) Education Strategic Plan, released May 2013, the jobs of the future are STEM jobs. The demand for professionals in STEM fields is projected to outpace the supply of trained workers and professionals. STEM education and the Maker Movement are closely intertwined. 4-H has been specifically cited as a collaborating agency that can integrate STEM into existing informal learning environments. Youth engaged actively in the Maker Movement, whether in local makerspaces or at Maker Faires and Festivals, participate in authentic STEM experiences as they develop critical thinking and problem solving skills.

Ideas for Extension Events

Coordinate a mini Maker Fest in your community to showcase youth maker projects.

Host monthly themed maker events at your county office where different local makers can teach families a new skill including 3D printing, sewing, baking, soldering, or woodworking... the ideas are endless!

Host periodic meet-ups where youth and families can network and learn new skills from one another.

Participate in local Maker Faires, Festivals, and the annual Barnes & Noble Mini-Maker Faire with 4-H members and volunteers to expand your 4-H program's reach and engagement.

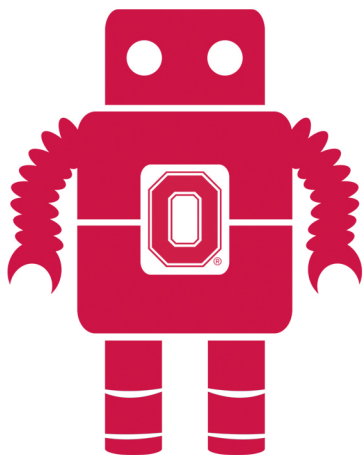
What is the **Maker**Movement?

The Maker Movement is inspiring communities of entrepreneurs, builders, and inventors to come together and share ideas and innovations.

There have been over 400 Maker Faires organized around the world since 2012.

The world's crowdfunding sites reached close to \$5 billion in transactions last year. By 2025, the crowdfunding investment market is projected to reach \$93 billion.

The 3D printing market is projected to be worth \$8 billion by 2020. World demand for 3D printing is projected to increase more than 20% per year to \$5 billion in 2017.



Resources

go.osu.edu/makermovementscope

go.osu.edu/makermovementjoe

whitehouse.gov/nation-of-makers

extedtechs.org/makers

go.osu.edu/osuetechfaire2016

How can the Cooperative Extension System bolster the Maker Movement?

It is now Extension's moment to take a leadership role in the Maker Movement. We have the research and resources of the Land Grant University system. We have the tech, grant-writing, and social media skills to connect makers, support them in their entrepreneurial endeavors, and apply for funding that will democratize access to the tools of innovation. Extension can partner with local makerspaces to host workshops on Lean Startup Principles, facilitate Startup Weekend events and 4-H Maker Camps for youth. We can support this movement in similar ways we've traditionally supported the agriculture industry. Likewise, makers can work with Extension as volunteers to advance citizen science projects, lead/teach in 4-H, and help us confront complex community issues with hi-tech solutions.