

# Mountain Maker Fest Helps Build Up S.T.E.A.M.

Written by: **Sara Mullins**

Photography by: **Lance C. Bell**



iPLAY  
iLEARN  
iDo  
iLEGO

The inaugural Mountain Maker Fest was held August 15, 2015 at Garrett College's Career Technology Training Center in Accident, Maryland, with well over 400 attendees. With programs, demonstrations and activities tailored to all age groups, the excitement and "buzz" was palpable.

The event focused on bringing an awareness and understanding of S.T.E.A.M. — Science, Technology, Engineering, Art and Mathematics; related do-it-yourself, hobbyist and business-minded makers activities. A maker is someone that creates, or makes something. That something, in the case of the Maker Fest, included rockets, robots, clay impressions, computer-designed facial models, woodwork, dances, metal sculptures, photographic emulsions, leather work, jewelry, gelatin art, LEGOS, 3D prints, crafts and even organic dog biscuits.

According to Mike Tumbarello, Director of the Garrett College Center for Entrepreneurship & Innovation, and Co-Director of the event, "The Maker

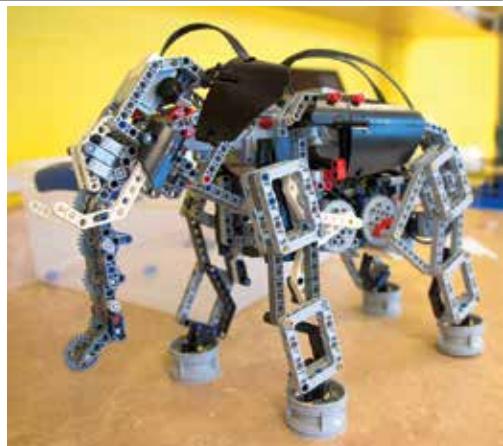
Movement is a global phenomenon that is celebrating those that create and innovate, while also helping individuals and whole communities fully realize their potential to improve their lives and perhaps create businesses by innovating and creating."

One key is utilizing, to varying degrees, the elements of S.T.E.A.M. in conceiving and building creations, which is a great way for individuals, especially young adults, to build their skill-sets to improve their career and job prospects.



**Above:** Alexandra Miller, Team 1629 member, demonstrates a LEGO project that depicts the whitewater course atop Marsh Mountain at Wisp Resort.

**Right:** LEGO robot elephant built at Grantsville LEGO Tech Camp.





**Joshua Sines shares his reclaimed metal art business.**

Another component is collaboration, which helps one maker transfer her or his knowledge to another potential maker, and which also creates a fun, rich experience for all involved. Finally, makers get to challenge themselves creatively and can build a business out of their products.

According to Sarah Myers, Co-Director of the event, “The maker movement is about empowerment, creativity, innovation, fun and perhaps profit. Makers combine S.T.E.A.M. concepts in new and innovative ways and inspire learning through tinkering and experimentation.”

Differentiating the event was the participatory activities that were held throughout the day. Each vendor shared an activity or technique and let the audience participate in “make-it and take-it” activities of all kinds.



One key component of the event is the arts, the “A” in steam, which was represented by a number of area artists, including Angie Sincell, Regina Holliday and Sue Arnson, and both the Garrett County and Allegany Arts Councils. The artists demonstrated their expertise in a number of mediums and shared the “how” with interested attendees. Other important and significant components of the event were science, technology, engineering and math, the “S,” “T,” “E” and “M” in S.T.E.A.M. A number of technology-related events and activities were provided by local educators, including Phil Malone, Chuck Trautwein and Michel Ouendeno. In addition, a number of DIY and entrepreneurial makers attended, including metal sculptor Joshua Sines and members of the Oakland Civic Club.

The Mountain Maker Fest was the third installment in Garrett College’s Power of Possibilities series of events. The Power of Possibilities is about creating and supporting a culture of self-empowerment and independence, and building a cohesive “support ecosystem” to help individuals and the community. Since the first Power of Possibilities event in October of 2014, well over 600 individuals have attended summits, with a number of small businesses having been launched by attendees and business plan competition participants.

For more information about the Maker Fest, the Power of Possibilities or for help planning or launching a small business, please contact Mike Tumbarello at Garrett College’s Center for Entrepreneurship & Innovation. Mike can be reached at 301.387.3167 or via email at [mike.tumbarello@garrettcollege.edu](mailto:mike.tumbarello@garrettcollege.edu).



**Brenda McDonnell (back right) watches as her granddaughters, Eve and Ruth Beard, participate in building bottle racers at the Mountain Maker Fest.**

## Some activities for the day were:

- Pacific Trash Cleanup (iLEGO team)
- E-textiles (FIRST Team 1629)
- High-Five Selfie Booth (Ken Myers)
- Straw Rockets (FIRST Team 1629)
- Art Bots (Garrett College)
- Cardboard Drive-In (Garrett College)
- Reclaimed Metal Art (Joshua Sines)
- Recycled Bottle Racers (GEARS, Inc)
- Tiny Dancer Homopolar Motors (GEARS, Inc)
- Simulation aMAZEing robot (GEARS, Inc)
- Programmable Logic Controllers (Garrett College Electrical Engineering program)
- Community Art Mural (Regina Holliday)
- Line Art (Miranda Bender – GEARS, Inc)
- SimMan Medical Simulations (Garrett College EMS program)
- Interactive Floor Piano (Ken Myers)
- Dog Treat Demos (Your Happy Tails, LLC)
- Woodburning, Painting, Silver Jewelry (Barbara Myers)
- Crystal Charged Jewelry and Healing (Shantastic Shine)
- Polaroid Emulsion Lifts (Eye for Art Gallery & Studio)
- Monoprints (Sue Arnson)
- SuGO robot battles (GEARS, Inc)
- Great Ball Contraption – GBV (GEARS, Inc)
- Wood Cutting (Wood Creations)
- Real Life Angry Birds Field (GEARS, Inc)
- Larger than life Super Mario Bros Game (Ken Myers)
- Facepainting (Red Nose Creations)
- Unique Bookmarks
- Drive the aMAZEing robot (GEARS, Inc)
- LEGO Derby (GEARS, Inc)
- Power Surge Games (GEARS, Inc)

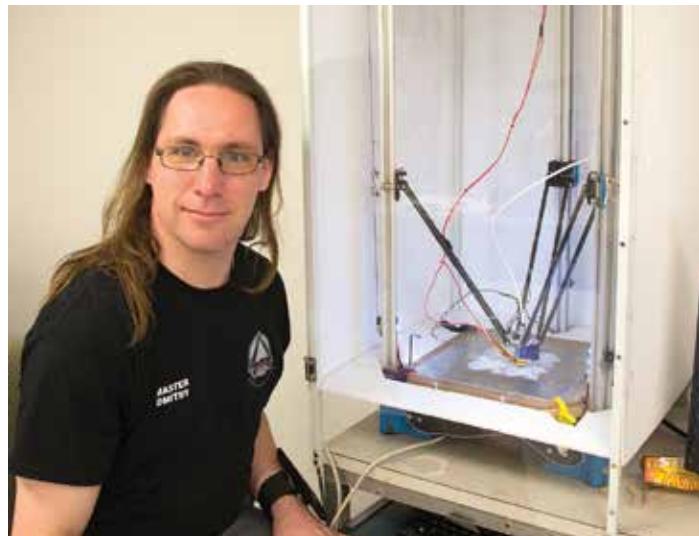
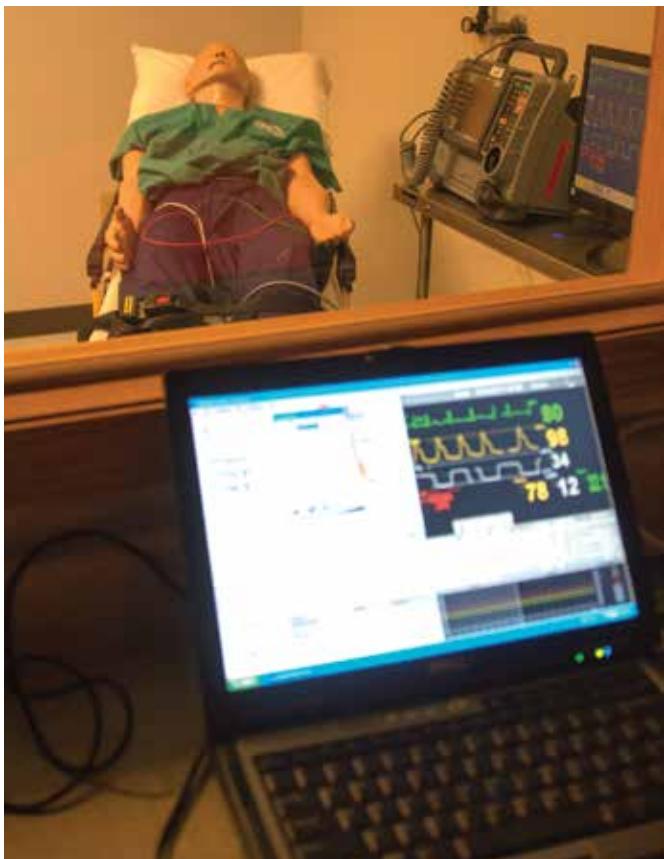


**Top:** Tiny Dancer Homopolar Motor activity:  
Derrick Maust (left) and Kevin Maust (back left),  
Techno Clover FTC team alumni, helping one of  
the participants.

**Middle left:** Aerial Assist Robot launches a ball  
to a FIRST Team 1629 member.

**Middle right:** Griffith Speis from G-FORCE FTC  
Team displays a bottle racer.

**Bottom:** Steve Storck (parent of robot team  
member Jessica and robot team alumni Sarah)  
helps one of the participants at the Mountain  
Maker Fest.



**Top left:** New paramedic simulation lab at Career Technology Training Center allows control of the SimMan training manikin with observation of students behind one-way glass.

**Top right:** iLEGO Team Member demonstrating a LEGO contraption.

**Above:** Dmitry Ostrogorsky with his homemade 3D printer.  
**Bottom left:** Phil Malone (aka Mr. Phil), founder of Garrett Engineering and Robotics Society, Inc. at a SuGO table.



### Come and build Sumo Wrestling Robots on SuGO Sundays (first Sunday of every month):

SuGO teams form at 1:00 pm, and build until 3:00 pm. Teams can be families or friends and no experience is necessary. All equipment is provided, and help is available for rookie teams. At 3:00, teams move to the arena and the SuGO bots battle it out tournament style. This is a great activity for LEGO lovers of all ages. Experience LEGO Robotics hardware and push your creativity to the limit. Ask for a guided tour of the rest of the Robotics Center.

**GEARS Inc. 116 Industrial Park Dr., Accident MD 21520**  
**First Sunday of every Month – 1:00-5:00 pm**  
**Contact Phil Malone (301) 387-2331**  
**Fees/Admission: \$10 per team or free for GEARS members.**  
**Yearly Membership is \$25.**