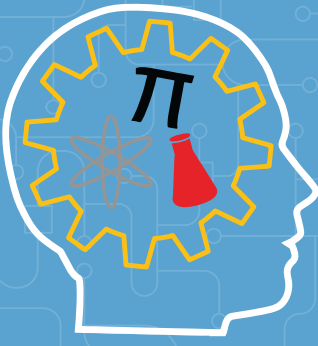


MARYLAND  
**STEM**  
FESTIVAL



Summary  
Report



2022

# Festival Summary

MdSTEMFest is one of the few statewide celebration of its kind in the nation. Every Fall, we showcase STEM—science, technology, engineering, and mathematics—with community-based events hosted by museums, science centers, colleges, universities, businesses, parks, libraries, and public and private K-12 schools. Founded in 2015, MdSTEMFest has served tens of thousands of participants of all ages from all 23 counties and Baltimore City since its inception.

## Sponsors

**verizon** **tenable** **HORIZON**

**LOCKHEED MARTIN** **United Therapeutics CORPORATION** **WT WRITING-TURNER**

**CAPITOL** Technology University **FROSTBURG** STATE UNIVERSITY **NATIONAL CRYPTOLOGIC FOUNDATION**

**CARROLL** COMMUNITY COLLEGE **Maryland** DEPARTMENT OF COMMERCE **JOHNS HOPKINS** MEDICINE **Salisbury** UNIVERSITY

**Central Maryland Chapter** **MC** MONTGOMERY COLLEGE **SHIMADZU** Excellence in Science **UMBC**

**emergent** biosolutions® **\*enktèsis** building value developing ideas **KCI** TECHNOLOGIES **UNIVERSITY of MARYLAND** MEDICAL CENTER

American Council of Engineering Companies Maryland (ACEC) <https://www.acecmd.org/>

Dr.LMB Pailen - Super Cybersecurity Grandma

Intelligent Transportation Society of Maryland (ITSMD) <http://itsmd.org/>

Maryland Governor's Workforce Development Board <http://www.gwdb.maryland.gov/>

Parusha STEM Foundation <https://parushafoundation.org/>

## Contact

Maryland STEM Festival

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[mdstemfest@gmail.com](mailto:mdstemfest@gmail.com)

410-627-1074

## Board Members

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Kelly Yang,  
*Marriotts Ridge High School*

Dear MdSTEMFest Family,

The 2022 Maryland STEM Festival felt real. It felt alive. It was the first honest-to-goodness MdSTEMFest celebration since 2019. That's thanks to you: to our partners, to our teachers, to our STEM Professionals to our sponsors, and to the tens of thousands of Maryland residents who participated from the mountains to the sea. It's also thanks to the incredible real-time work of the STEM and public health professionals getting us through the pandemic.

Since its launch in 2015, the Festival has developed and coordinated many unique ways to present and encourage interest in STEM. From a Cybersecurity version of Family Feud to Parades to Science Themed Comedy shows, we've done it. We've had robots smashing pumpkins, musical performances and original plays, interviews with Astronauts, movie showings and more.

We couldn't stop the Maryland STEM Festival even if we wanted to. (We don't.) It's now woven into the fabric of our state and will continue to grow and evolve thanks to you.

We can't wait for October 2023.

Best wishes and Science for All,  
The Maryland STEM Festival Team

Phil Rogofsky,  
Executive Director



Boys and Girls Club (Glen Burnie)



STEMCx (Baltimore)



Lego Challenge (Riviera Beach)

“For many students who are unable to travel to nearby science museums or nature centers, this was their first and only exposure to these kinds of hands-on STEM activities”

**Bess Caplan**, Running Brook Elementary School

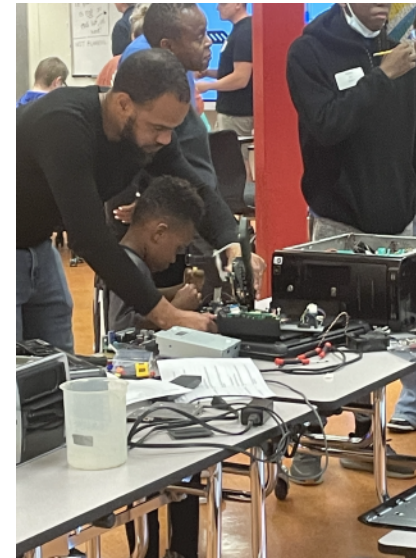
# Cybersecurity and Information Technology

We celebrated two of Maryland's most industries with over three hundred events highlighting Cybersecurity and Information Technology.



## OMMS Defender Day

Old Middle Middle School held its Cybersecurity Defender event where attendees interacted with career professionals and participated in a variety of interactive stations.



## Girl Scouts Cybersecurity Badges

STEM Professional women from Johns Hopkins Applied Physics Laboratory led 40 Daisies, Brownies, Juniors and Cadettes in an activity that enabled them to earn their basic Cybersecurity Badge at Bowie State University. The event was so successful that the Festival held it again in December at Anne Arundel Community College.

## MAGIC Capture the Flag!

MAGIC's 13th Capture the Flag (CTF) event took place on Saturday, October 22 at Carroll Community College. It included 64 registered students across the United States



Over 20,000 Attendees

Over 350 individual events

21 Maryland Jurisdictions



## Cybersecurity Family Feud

Students from Meade and Crofton joined Cyber professionals from Guidehouse and IntelliGenesis for the first Annual Competition of a unique version the highly popular game!



## NCM NERDINT Nights

The National Cryptologic Museum (NCM) held NerdINT, 4 nights of STEM with exhibits and different hands-on activities related to cybersecurity and information technology in their newly renovated building!

## MISI ICS Cyber Saturday

Maryland Innovation and Security Institute introduced students to critical infrastructure concepts and cybersecurity basics. These combined skills will be used for executing offensive physical scenarios that will result in visible damage or disruption.



# Celebrating STEM Across Maryland



Spooktacular STEM Fest  
Aberdeen, Harford County



Be a Maker  
Rising Sun, Cecil County



STEAM Fest 2022  
Hagerstown, Washington County



Mid-Shore STEM Festival,  
Wye Mills, Queen Anne's County



Community STEM Day  
Easton, Talbot County



ST. Mary's STEAM Festival  
Leonardtown, ST. Mary's

## Blue Collar Stem Conference Celebrates its 6th Anniversary

This year marked the 6th annual Blue Collar STEM Conference. The event focuses increasing awareness of STEM jobs that don't require the traditional four year college path. The event was held at the Community College of Baltimore County (CCBC). Students, parents, and teachers heard from a panel of experts and saw different Blue Collar STEM training opportunities.



Want to meet our partners?  
Scan to see a complete list  
of partners.

## Bringing the Festival to You!

Bringing the Festival to you is not just a tagline. It's our mission and our promise to the people of Maryland. We strive to reach all 23 countries and Baltimore city delivers programming that serves audiences of all ages and backgrounds to ensure everyone is given a chance to explore the worlds of Science, Technology, Engineering and Mathematics.



National Aquarium at RBES



Science Guys at RBES



Fun at Morgan STEM Expo

## Running Brook Elementary School (RBES) STEM Day

RBES ran an entire day of fun, STEM activities for students. Activity hosts included NSA, National Aquarium, Science Guys of Baltimore, Howard Conservancy and Howard County Public Library. There were robots, pollinators, music and a live owl!

## Morgan STEM Expo

Morgan State University's annual STEM Expo returned in person this year to eager the area's students. Students of all ages used forensic science to analyze a crime scene, coded a robot to navigate a maze, explored virtual reality, examined aquatic life, and so much more.

## Bridging the Digital Divide

The Maryland STEM Festival recognizes lack of access to STEM as a social justice issue. The Festival seeks ways to address and identify special social justice aspects of STEM. One example is a proactive discussion the Festival held regarding the Digital Divide, the issue that not everyone has equal access to the Internet and Metaverse. Read more about our discussion at <https://technically/diversity-equity-inclusion/maryland-stem-festival-digital-equity-panel/>

## A real live STEM Parade!



STEM IS FUN! The Festival is always searching for new ways to show the fun side of STEM. What is more fun than a parade? This year, the Festival hosted a full fledged STEM parade in Frederick. The parade was a huge success with robots, dirt bikes and electric vehicles. Grand Marshalls Fort Detrick Deputy Commander Colonel Andrew C. Kim and Frederick Mayor Michael O'Connor led parade walkers on a sunny November day from West Frederick Middle School to Baker Park.

In Baker Park, there was pop-up STEM event featuring NASA, the Boys Scouts, Frederick Community College, Maryland Department of Natural Resources, and ThermoFisher.

Read about the parade at [https://www.fredericknewspost.com/news/science\\_and\\_technology/biotech/festival-emphasizes-importance-of-stem-issues/article\\_f96468bd-efde-5aa3-9d7f-3230edbb9e43.html](https://www.fredericknewspost.com/news/science_and_technology/biotech/festival-emphasizes-importance-of-stem-issues/article_f96468bd-efde-5aa3-9d7f-3230edbb9e43.html)



Robot leading the Parade



Pop-Up STEM in Baker Park

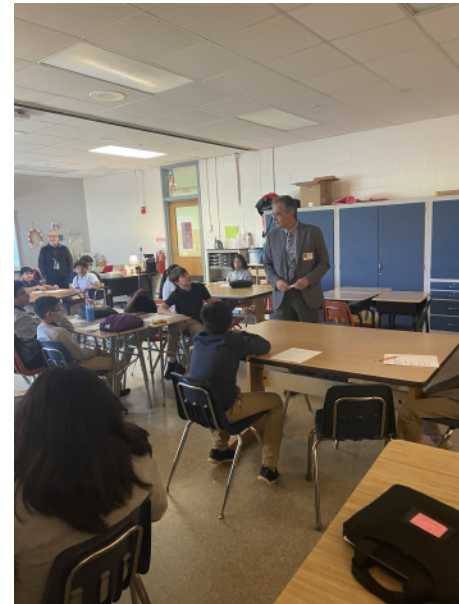
Thank you so much for the opportunity for my students to join the Zoom today! They were so excited when they found out that they would be talking to real engineers. After the session, many shared that they now wanted to explore engineering as a career. ”

Cameron Howell, Frink Middle School



Founder with Keynote

# Middle School STEM Professional Match



## Real-World STEM Professionals to Middle School Audiences

Over 1,000 middle-school students experienced STEM first-hand from professionals across Maryland. STEM Professionals shared their stories and experience ranging from space travel to flying military airplanes to studying the ocean. Teachers and students learned about diverse areas of STEM while the professionals experienced the life of a teacher.

# Expanding Our Reach

## Beyond the Fall

The Festival will continue to create and expand Maryland's Olympics of STEM each Fall, but will be organizing and participating in other STEM events throughout the year. On December 10, the Festival held the Girls STEM-Powerment event at Anne Arundel Community College, providing the opportunity to engage with women from a variety of STEM fields. Also, Girl Scouts were given the opportunity to earn their basic Cybersecurity badge!



## Connecting with the Community

In addition to providing hundreds of free events to families across the state, the Festival connects in other ways with those in need throughout Maryland. The Festival donated over 100 shirts to the Student Homeless Initiative Project in Frederick. We also donate STEM kits and books to over twenty elementary schools across Maryland.



## eSports, just the beginning!



eSports are another fun area of STEM. This year, Dexter Carr and Game4Good brought eSports to the Festival in 2023 with a variety of events including a virtual competition, eSports Conference featuring speakers from around the World and live Competition.

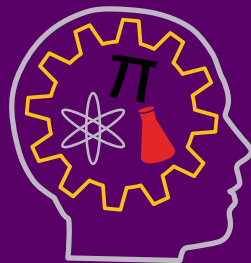


Our entertainment is becoming increasingly intertwined with STEM. This year our theme STEM-TERMAINMENT highlights the connections between STEM and Entertainment. Look for more details as we get closer to the start of the 2023 Maryland STEM Festival. The Festival will run from October 13th through November 11th.

**NINTH ANNUAL**

Save  
the Date

MARYLAND  
**STEM**  
FESTIVAL



**2023**

October 13 - November 11

**The Theme Is...**



**STEM-ertainment**

**A month-long festival to encourage  
student interest in STEM!**

**MarylandStemFestival.org**



/MarylandSTEMFestival



mdstemfest



@mdstemfest