

FIREWorks EDU, Future Innovative Rising Engineers  
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www.firensbejr.org



In a pandemic, FIRE has 55 active student members that have participated weekly through virtual activities that span entrepreneurship, experiential learning, research, college readiness, internship prep, personal & professional development, project-based learning, and STEM competitions. FIRE continues to serve over 250 students with activities offered for non-members virtually. FIRE also has 18 active professional mentors that expertise in the engineering, cybersecurity, science, education, and management fields. FIRE is a non-profit, 100% volunteer STEM organization.

The students completed 10 weeks of training in a variety of areas including science, autonomous vehicles, programming/coding, and computer-aided design. The program continues in 2021 as the students compete in the Junior Achievement's Entrepreneur Program, National STEM Leagues Ten80 Autonomous Vehicle competition, and MathCounts competition. The program also continues to offer professional development, college readiness, and internship preparation programs. The organization is heavily involved in the National Society of Black Engineers (NSBE) and works to contribute to NSBE's goal to graduate 10,000 STEM professionals by 2025.

We are extremely proud of these accomplishments; and we would like to congratulate the students and thank our Sponsors and Partners for their well-wishes, encouragement, and unwavering support. Thanks to all you do and we hope you can RSVP for this VIRTUAL event using the following link. Below, you will see a list of some of our accomplishments.

- Developed FIRE Autonomous Vehicle (FAVE) STEM curriculum and competition
- 2021 JA National Student Leadership Finalists
  - Complete Comfort – FIRE JA of Greater Washington (Washington, D.C.)
- 2021 National Stem League - 1st Place, Nation-wide Autonomous Vehicle Competition
- 2021 NSBE Finals Winners - 1st Place Ten80 Autonomous Vehicle Competition, 3rd place overall
- 100% of seniors pursuing STEM Fields, 100% accepted to college
- 5+ High School Students have attained STEM internships for Summer 2021
- Increased reach beyond DMV to Wallops/Accomack County, Tuskegee Alabama, and Florida

The National Society of Black Engineers (NSBE) 47th Annual Convention was held from April 05 to April 09, 2021. More than 14,500 attended virtually to partake in Pre-College, collegiate, and professional workshops, seminars, networking events, and competitions. There were 50 people who attended from the Future Innovative Rising Engineers (FIRE) NSBE JR and the NSBE Greenbelt Space Chapter (GSC): 2 were professionals from NSBE GSC, 40 were FIRE students, and 8 were FIRE coaches and chaperones. Overall, our students performed very well in their competitions. A number of students participated from the Chesapeake Lighthouse Foundation (CLF) schools: Anthony Boddie (F.A.V.E and STEM research), Bryce Stephens (NSBE Jr Special Assistant to Advisor, Ten80 Mechanical Lead, JA Business Leader Excellence Award as Supply Chain Director), Cameron Salsibury (NSBE Jr Board Treasurer, Ten80 Enterprise Lead, Ten80 Leadership Award), Christopher Donalds (Ten80 AV software), Ebrima Sise (Programs Chair, Ten80 Enterprise Lead), Jayden Gyamfi (Junior Achievement, Business Leader Excellence Award as Sales Director), Jayden Russel (Ten80), Makeda Daring (Junior Achievement, Business Leader Excellence as CEO Award), Maurice Ray (F.A.V.E and STEM research), Nigel Seymour (F.A.V.E and STEM research), Ousman Sise (Ten80), Robert Foster (Ten80), Roshni Pawar (NSBE Jr Secretary & Ten80 Enterprise Lead, Excellence in Math Award), Sapri Sise (NSBE Jr Programs Chair & Ten80 Enterprise Lead, Above and Beyond Award), Steven Butler Jr (MathCounts, Ten80 Design, Above and Beyond Award), Zainab Al-Kidd (Ten80 Autonomous Vehicle Software).

FIRE is a non-profit, 100% volunteer STEM organization. Students meet and practice every Saturday throughout the school year to prepare to compete at the National Society of Black Engineers (NSBE) convention and nationally recognized competitions. Fourth through twelfth grade students participate in Vex educational robotics (V5 and IQ), the Try-Math-A-Lon (TMAL) math and science quiz bowl, MathCounts, the FIRE Rocketry Challenge, Junior Achievement Entrepreneurs, and the Ten80 Race and Autonomous

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Vehicle engineering competitions. These competitions inspire student's ambition towards careers in the aeronautics, chemical, computer, electrical, mechanical, robotics, space and software engineering, science, and technology fields. Secondly, students are trained in professional development, principles of engineering, computer aided design, additive manufacturing (3D printing), and programming. This training helps students prepare for high school internships and build their confidence and competence to endure the rigor of STEM programs in higher education. This year, students are building their own 3D printers as we develop a maker space for training and research.

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We are extremely proud of these accomplishments; and we would like to thank everyone for their well-wishes, encouragement, and unwavering support. **Thank you so much to CLF and CMIT North High School (Mr. Avsar, Mr. Bayram, and Mr. Ak) for your continued support!** We would like to continue to partner with you in development the future engineers, scientist, technologist, and tech moguls. Please contact us if you are interested in supporting this cause.

Thank you,

Milton Davis

FIREWORKS Education Executive Director

FIRE NSBE Jr Advisor for Strategy

NSBE GSC President

Sanetra Bailey

FIRE NSBE Jr Advisor for Parents & Student Affairs

NSBE GSC PCI Chair

Robin Houston

FIRE NSBE Jr Advisor for Programs

NSBE GSC PCI Chair

# The FIRE Family Thanks You!!!

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# APPENDIX

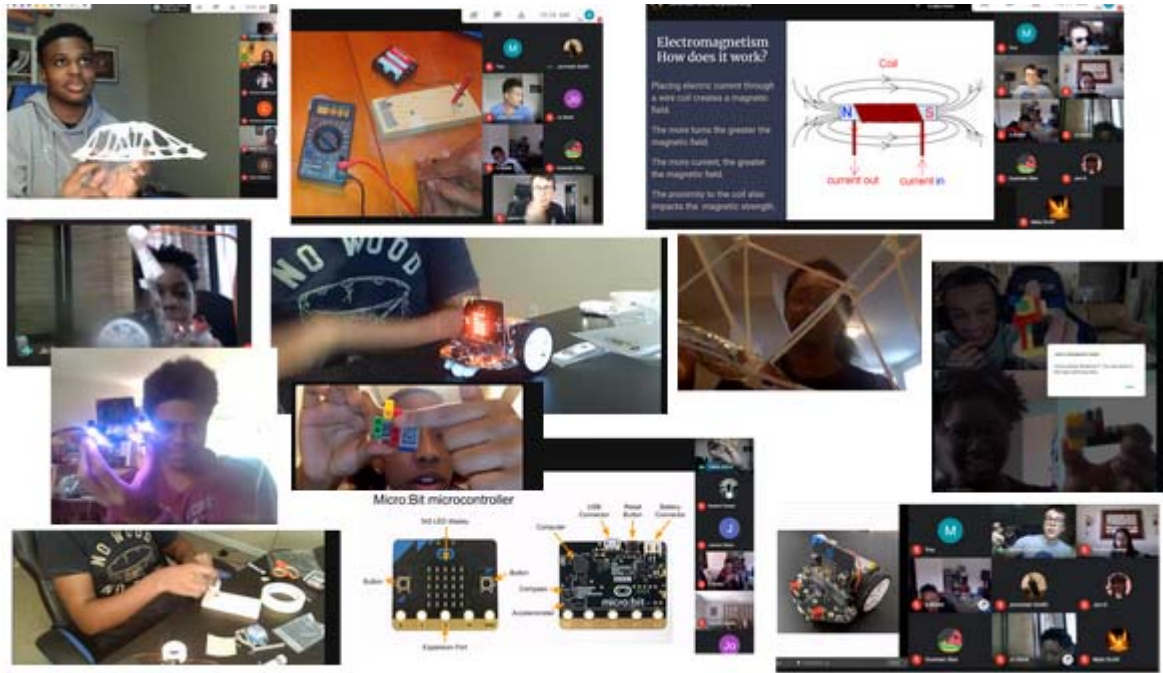
## Team Photos & Videos



Roshni Pavar Video Virtual Learning Programming and Robotics



Makeda Daring, Jayden Gyamfi, Bryce Stephens



Virtual F.A.V.E Learning – Nigel Seymour





Ten80 National Competition Trophies