



NEHS Project SPARC Boosters

Donate Now!

Visit Our Website

NEHS Project SPARC Boosters Update

Greetings!

Thank you for your past generous financial support for Project SPARC!

As we close out 2022, I'm asking for your support again. I hope you will consider making another donation to SPARC. Our goal is to raise \$8,500 in 2023 and your year-end donation will position us for success.

All donations are appreciated and 100% of the funds raised are used to support SPARC. Please make your donation today by clicking here or using the link below. (A special thank you to the Boosters who have already made their donations.)

Like many school programs, Project SPARC is making progress in returning to normal operations as we recover from the pandemic. Project SPARC's mission of providing NEHS students with experiential learning opportunities around STEAM-related activities has expanded in the past year. Below you can read about the activities in a report provided by SPARC Co-Directors Mr. Andrew Adams and Dr. Danielle Parker. I want to extend my thanks to both of them for their leadership and vision by ensuring Project SPARC can adapt to the changing environment and continue to grow as it inspires a whole new generation of students to STEAM careers.

While the summary provided by Co-Directors Adams and Parker represents the present, I want also want to address SPARC's future. Last year I reported that we intended to retire the Viking Space Shuttle, which has been a prominent fixture for SPARC the last twenty-five years. I heard from a number of alumni and boosters concerned that this would move SPARC away from its space heritage and legacy. I assured them that this was not the case, that this change was needed to position SPARC for the future that will include new space related programs and technologies.

The students of today are increasingly challenged by technological change and advancement, and they face a far different career environment from ours. For that reason it is critical that SPARC maintains its role in preparing and inspiring students for careers where they can address our global challenges. As I noted last year and in response to those who reached out, that means recognizing the need to "*celebrate our past and reimagine our future*"

On a personal note I intend to play an active role in SPARC's future. I recently retired after an exciting career in aerospace engineering and most recently in promoting STEM education for IEEE. SPARC made that all possible. I have relocated to Florida's space coast and I am doing consulting work for the National Space Society at our new office at the Kennedy Space Center Visitor Complex. In this new phase I hope to identify partnerships that will benefit SPARC as well as devoting more time to planning and fundraising.

We have a lot of work to do and together we can ensure SPARC's future as a cutting edge

STEAM program designed to inspire and prepare students to be the problem solvers of tomorrow.

On behalf of the **SPARC students and faculty** and the **NEHS Project SPARC Boosters**, I thank you for your continued generosity and support of SPARC!

Please feel free to contact me with your questions, comments, and suggestions.

Wishing you a wonderful holiday season and a very Happy New Year! Stay Safe.

Burt Dicht, Director
NEHS Project SPARC Boosters

[Donate Now!](#)

State of Project SPARC Report

This holiday season, we pause and reflect on what alumni and supporters like you have meant to Project SPARC. We cannot begin to thank you for your continued support and dedication in inspiring the next generation of tinkerers, pilots, engineers and research scientists. You are a huge part of what makes Project SPARC so special. Whether it was a word of support, a monetary donation, or volunteering your time to help students, please know that you are appreciated.

We are two years removed from being uprooted by the changes brought on by the COVID pandemic. This caused us to reevaluate our mission to provide student centered, real world applicable STEAM opportunities for our students. As a result . . . **We are offering skills and experiences students can take with them as they brave a brand new post pandemic world.** We would like the opportunity to share with you what we've been able to accomplish due in large part to your efforts. Below are several highlights and major activities through December.

At Project SPARC we will always welcome professionals to come in and speak to the students about their careers or their journeys toward where they are today. We have had guest speakers from Temple University, the Franklin Institute, professors in engineering, software engineers, and personnel from the United States Navy and Space Force come and speak to members of the Project SPARC.

All of these activities cannot take place without your continued support. The monetary support and mentorships you have provided Northeast High School's Project SPARC has *sparked* an interest in all things STEAM. **It has lit a lamp of learning that continues to shine bright well into the foreseeable future, and we didn't want to let this Holiday Season go by without expressing our deepest gratitude!**

Respectfully submitted,

Mr. Andrew Adams and Dr. Danielle Parker

SPARC Aviation (Flight)



In 2020 Project SPARC created an Aviation (Flight) Division to introduce students to the possibilities of piloted flight to meet the growing demand for drone and commercial pilots. During the 2021-2022 school year six Students earned their FAA 107 (UAV\Drone) license and have begun to apply their skills working in the community. We are working on other partnerships.

Because of your generosity, SPARC has been able to hold true to our aerospace roots; we were able to purchase 3 DJI Mavic Air drones for the students to earn flight time. We are working to secure more drones as the popularity of this division has grown.

Students have begun to utilize the FAA drone licenses your donations have made possible by providing aerial photography for local real estate agents and providing public relations for NEHS including [this timelapse video](#) of our students entering the building.

Our licensed student drone pilots have now moved on to teaching their skills to lower-division students, and as a result we have fifteen drone cadets studying for the exam this Spring. The cost of the exam is \$175.00 and we are working on fundraising efforts to reduce the cost.

Our Drone program has spurred an interest in aviation, and through your generosity we were able to put together 2 DIY simulators using X-plane 11, and Yolk and Throttle Controls from Honeycomb.



SPARC continues to seek outside agencies to increase our foray into the aviation community. We are aware there is an airline pilot shortage, and are trying to plug that hole while introducing students to the wonders of flight. **We welcome any and all volunteers who are committed to seeing students pursue a career in aviation.**

Our simulators are a work in progress, as you can see from the photo and there's still a lot of work to be done, including sourcing PCs and monitors!

SPARC Engineering

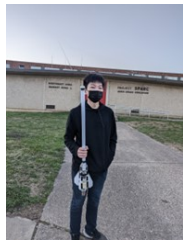
SPARC Engineering has eighteen active members who are focused on competing in a national competition called [Science Olympiad](#). Thanks to your kind donations, we were able to purchase materials to design and redesign entries for all of the events for the first time since Northeast has been competing:



- We had our highest overall team rank last year during the competition
- This was the first time a student ranked in the top five in any event with his ping pong parachute

For this year's competition, students are designing and building devices that must be built using very specific specifications:

- Bridges
- Planes
- Precise sling shots
- A vehicle that can stop on a dime and also protect an egg
- Wi-Fi antenna
- A device that can keep time
- A device that will measure the weight of an object



The team is determined to rank in the top ten overall this year. This year we are expanding the program to more schools using a grant written by a SDP teacher that alleviates some of the strain for supplies, transportation, and registration. However there are some things we cannot get through the grant like t-shirts, hard to get building materials, and accommodations for out of area competitions.

SPARC Robotics



The SPARC Robotics Team's longtime coach Carol Neimic has transitioned to retirement and has graciously trained our two new school based coaches Mr. Cione and Mr. Dunakin. We wish her well as she has taken a step back to focus on her family. Both new coaches have huge shoes to fill.

Robotics has approximately thirty students meeting daily to gear up for competitions this winter. Those students make up four smaller teams. The varsity team travels and competes against other Robotics teams from across the city. Recently, they went to Carver High School in North Philadelphia for a collaborative workshop and scrimmage against twenty different teams from the Philadelphia area. In the upcoming months, we will enter additional scrimmages against teams from around the Philadelphia area to prepare for the regional qualifiers in February. A workshop was also held on December 10th at Central High School. We are looking forward to a very active and competitive robotic winter and spring.

SPARC Medical

SPARC Medical welcomed a new coach Ms. Ross. Last year there were two cohorts of students who met every other Monday. This division involves more than forty students. These students earned CPR, First Aid, and AED certification.

Completion of the program allows students to:

- Safeguard their community
- Be competitive for employment
- Fulfills one of the new graduation requirements in

Pennsylvania.

This proves to be a very successful program every year giving our students marketable skills. Additionally, Project SPARC Medical has partnered with NEMAC and the Red Cross Club to drive blood donations and introduce students to the possibilities of the medical field.



SPARC Environmental



SPARC Environmental was born out of a desire to get students to reconnect with nature while exploring our ecosystem safely and without masks. Since it began it has blossomed into a full fledged STEAM camp in it of itself.

Students in this division have:

- Built rowboats from scratch partnering with an organization called Waterborne
- Utilized basic carpentry skills to design and build 2 Schuylkill Skiffs skiff style rowboats. *(We are looking to auction one of the boats to raise funds for this program.)*
- Launched two row boats in May at the Fairmount Park Reservoir. *(16 kids rowed their own creations to study the riparian areas around the waterway.)*



Students in this program just finished a 5-day, 25 mile hike of the Appalachian Trail with an organization called Outward Bound. Those students formed a bond and are now working together to build the next round of rowboats.

Students also take weekly trips to Pennypack Park



to conduct water quality testing, riparian planting and other natural resource management work that the park requires. We are fortunate enough to have a classroom space in the park that we share with Baldi Middle School. Project SPARC serves as an extension of our school's Natural Resource Management program.

Students also have the opportunity to participate in the Philadelphia Flower Show. To date, in the 2 years this division has been operating, we've placed 2nd and 3rd respectively amongst high school students across the state. This experience has lead the students to a career exploration in horticulture.



From transportation, to materials your donations and efforts have allowed all of this to blossom



"Whatever career path a student follows, Project SPARC is a defining moment in their lives. Help future students experience SPARC by donating..."

[Learn More](#)

Your monetary donations are greatly appreciated. If you desire, you can also contribute to SPARC by purchasing supplies directly. We have identified areas of need within the SPARC divisions and created a list of materials that are required.

Use this link to view the supplies list. If you would like to purchase any items contact SPARC Co-Director Andrew Adams at ajadams@philasd.org. You will receive a donation receipt.

[Website](#)

[About Us](#)

[Project SPARC](#)

[Take Action](#)

NEHS SPARC Boosters

NEHS Alumni Foundation
1601 Cottman Ave.
Philadelphia, PA 19111
215-728-5076

[Contact Us Today](#)

