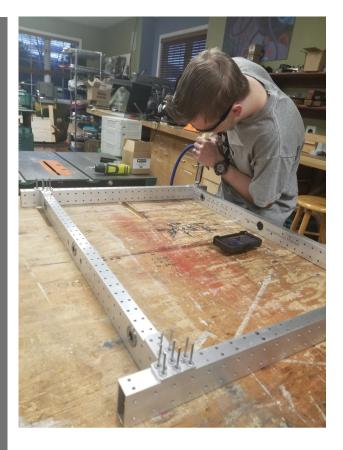# IMPACT REPORT

Neaera Robotics is a nonprofit 501(c)3 company created to provide middle and high school kids hands-on training and education in the fields of science, technology, engineering and mathematics (STEM). Our goal is to empower the youth of Colorado to learn, create and share the knowledge that they have gained. We aim to guide and mentor youth through real life business interactions with businesses from the community. We encourage an environment that allows kids to work with other students, adult mentors, professionals and parents, plus support and give back to their community.

ABOUT OUR PROJECT

Neaera Robotics offers any student from any school, location, financial status a safe environment to learn, discover and design new technologies, machine the next invention and program anything that they can come up with! We encourage this discovery through the development of robotics. Neaera Robotics works with local businesses to supply the program with tools, supplies and cutting-edge technology to support the youth with their ideas.
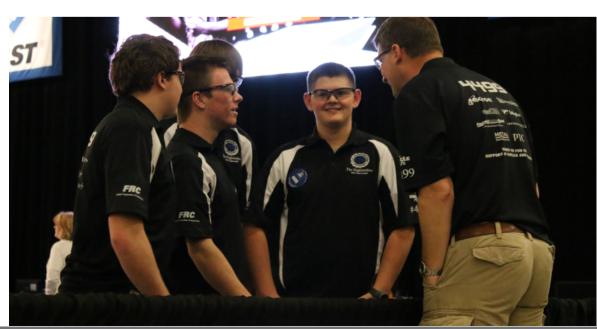
VISION

Neaera Robotics is a nonprofit company working with middle school and high school aged children developing in the fields of science technology, engineering and mathematics through the interest of building robots. We aim to also guide and mentor youth with real life business interactions with businesses within the community. Our main focus is to work with a group of students to develop an understanding of engineering through developing robots that have practical use.

MISSION

- the development and operation of an after school educational robotic club
- to enlighten, guide and educate youths in the areas of science, technology, engineering and mathematics
- to provide access to and reduce costs for youths seeking to engage in hands on learning
- to provide instruction and mentoring in managing a team, learning how to fundraise and work with local businesses
- to directly engage in and to provide facilities for others to engage in the promotion of robotics, engineering, programming, software design and team events

A Brief Description About the Problems

Schools can only teach so much. Neaera Robotics allows the student to learn many different Technolgies but using a hands-on approach and design/build using today's technology. Having mentors that are experts in the fields of engineering, computer science and business leaders, we aim to help facilitate ideas and make them a reality.

Our strength

Our program's focus is on leading the students to a self driven environment where students are led to learn. The state-of-the art equipment available to the students is one of the best examples of encouraging innovation. Members will use the same technologies as their counterparts in industry, giving them valuable experience for careers in STEM and entrepreneurship.

Objectives

The main objective of the program as a whole, though, is to increase STEM awareness and robotics participation in the community. This happens directly though the students in this program, as they learn about CAD, building, programming and running a robot. It happens indirectly through the elementary and middle school students team members meet in the various community activities. We have seen great results in our program, our students and our community.

THE SOLUTIONS

Outcome

By introducing youth to robotics from an early age, Neaera Robotics exposes participants to explore different fields of study and learn skills which will enable us to become productive members of society. Members are encouraged to experiment with computer programming, robot design and product research and development while also being exposed to various local business leaders and learning teamwork, leadership and presentation skills. We are able to learn machining, welding, Computer-Aided Design, electronics and business skills in addition to those already mentioned. With all of these skills, we are better able to complete our educations and be more prepared to move on to college and work within the business world.

Measure outcome

We foresee our program having a long-term impact on the community by creating the base for a robotics foundation. Our current members mentor and inspire new kids through the program, and previous members are already returning to mentor the team. We hope that a long-term commitment to the program will establish strong community ties and a possibility of new businesses to be created.We feel that the key to our future is the balance of STEM, business and community-interaction skills that members are learning here.

THE IMPACT

Internships

We assist our students to find internships with many local businesses

Outreach

We reach out and demo our programs by participating in outreach events each year

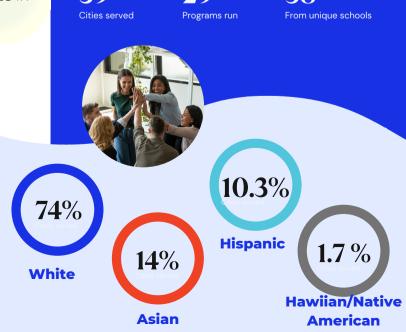## Community

We partner with our community and assist in donating our time, participate in parades and local events

Impact snapshot

82% Male

9.93% Female

8.07% Non-binary

Breakdown by the numbers

11 YEARS

3 PROGRAMS

291 YOUTH served

50 4th-6th grades

56 6th-12th grades

185 9th-12th grades

Locations

39 Cities served

29 Programs run

58 From unique schools

Demographics

74% White

14% Asian

10.3% Hispanic

1.7% Hawiian/Native American

ALUMNI

Pie chart:
- Computer Science 9.8%
- Workforce 7.3%
- Military 7.3%
- Physics 12.2%
- Math 4.9%
- Electrical Enggineering 22%
- Mechanical Engineering 36.6%

91.89% PERSUE STEM
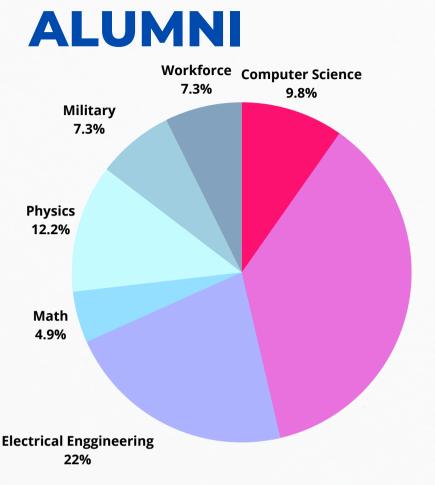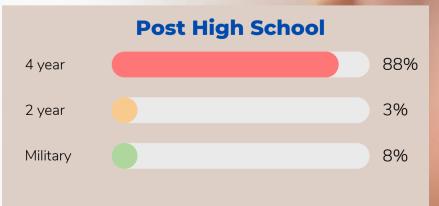
Alumni

Our team members who graduate from high school go on to many different post-graduation paths. Most of our students go on to pursue STEM degrees. We have had several purse other paths like the military and go direct to the workforce. The graduated members represent colleges from all over the country: Caltech, South Dakota School of Mines, Colorado State University, Colorado University, Air Force Academy, West Point, Worchester Poly Tech, Carnegie Melon and Vanderbilt
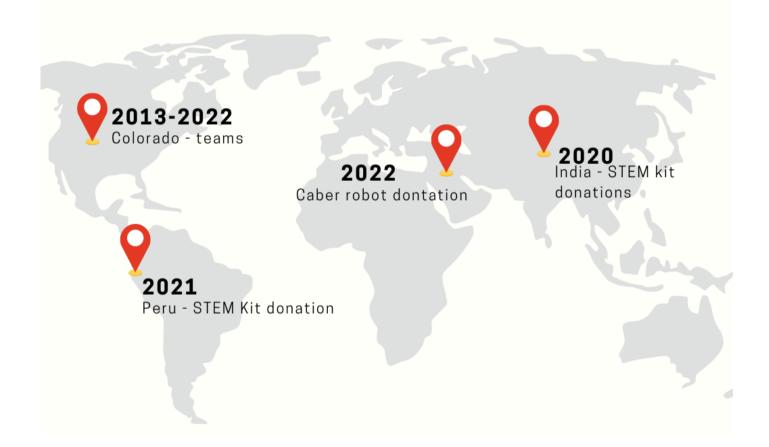
Post High School

4 year		88%
2 year		3%
Military		8%

WORLD-WIDE OUTREACH

2013-2022
Colorado - teams

2022
Caber robot dontation

2020
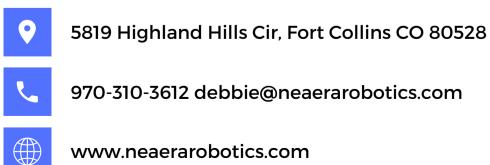India - STEM kit donations

2021
Peru - STEM Kit donation

Outreach Worldwide

Our program inspires our students to think world-wide. Programs like CABER were designed and developed by a member who created a robotics kit using ESP32's and robot supplies. Fifteen kits are being delivered to kids in an orphanage in Jordon.

THANK YOU

By participating in this program the team members learn to solve practical problems that our counterparts in various industries have to deal with on a daily basis. We will be more prepared to enter work life and to participate fully in the community.

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