Turkey, İstanbul

VEX ROBOTICS

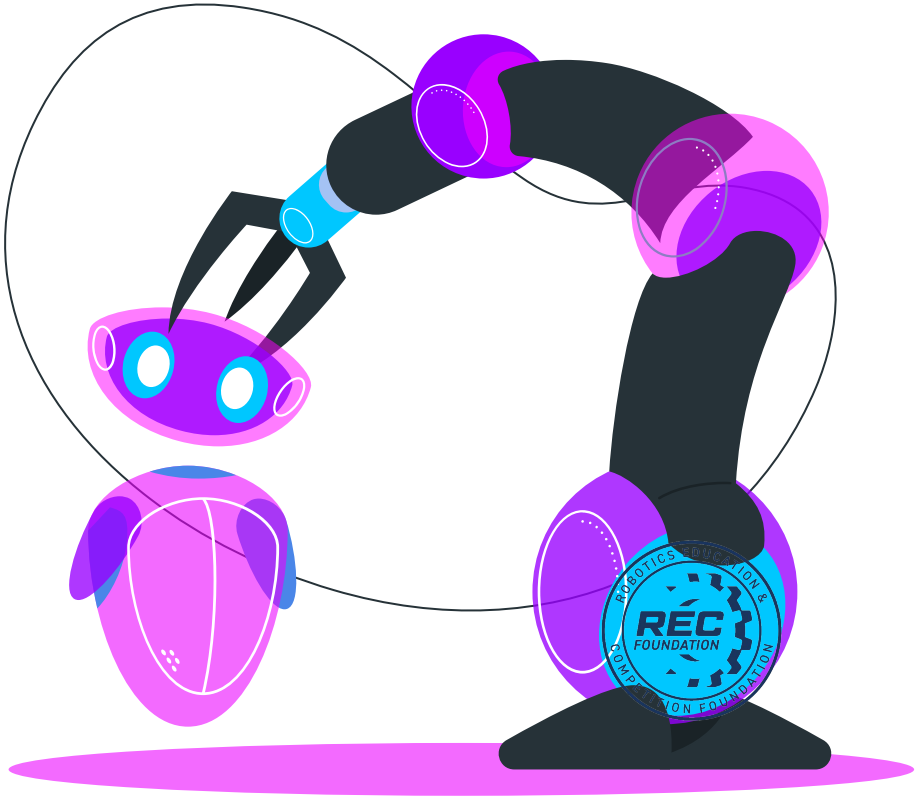
Girl Powered

63840R

Decabots

Climbing Up the "Platform" Together!

Lara Ceren, Defne, İremsu, Bartu, Ahmet Burhan, Ada



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Main "Point" of Our Team

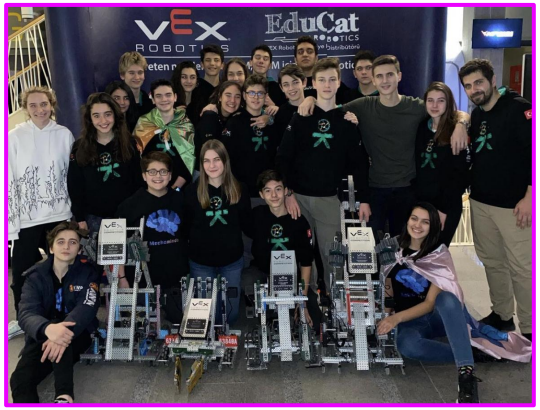
When we were in 8th grade, 3 years ago, our english teachers did a social experiment on us. We were all given a piece of paper and asked to draw a scientist. Out of the 100 people in our year every single person drew a man. While this would most likely be the case in other countries, a prevalent factor specifically in our case is the sexism engraved into our language. In turkish, the word for **"scientist"** isn't gender neutral, but it directly translates to **"science man"**.

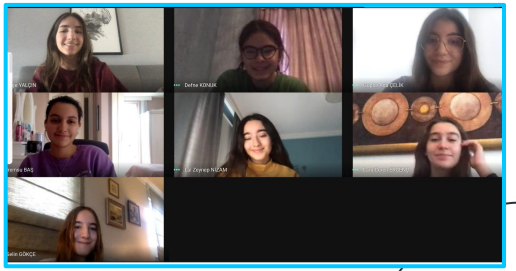
Not only do we live in a society where there's a huge gap between genders, but even the words and phrases we use every day constantly reminds us that **girls are seen as inferior.**

This is why girl powered is such an important thing for our team. We want to help lessen the microaggressions that people have to face just because of their sex. We want to help build a **better future** and a **feminist society**. We need the **equality** of all genders. To us, with the context of mechatronics, girl powered means finding people who you don't see in STEM, getting them to try it, and making them know that they belong in these fields.

Who are we?

As the **successor of girl powered** Mechaminds, the first VRC team in Turkey, our team began its journey in 2020 and became a member of the Hisar Mechatronics family. Due to Covid-19 our very first meetings were online and we couldn't get to see each other face to face for a whole year. This year we are finally able to **build robots physically** and brainstorm our ideas while we sit next to our members. An advancement in our team this year was that our team has become **more diverse** with the participation of new male members. Now our team consists of 4 girls and 5 boys.





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“Mobile” Roles

When a new member joins our team we first ask them which area (programming, mechanics, 3D design, engineering design notebook...) they are more interested in to give them a start off; however, during the process of getting prepared for competitions, they also **become familiar** with other areas. Even though there are members that are **more experienced** in a certain area, everyone has basic knowledge about the other areas so that when a team member is absent we can continue our plan. Additionally, this helps the communication between different areas and sometimes **solve a problem** that an experienced member couldn’t.

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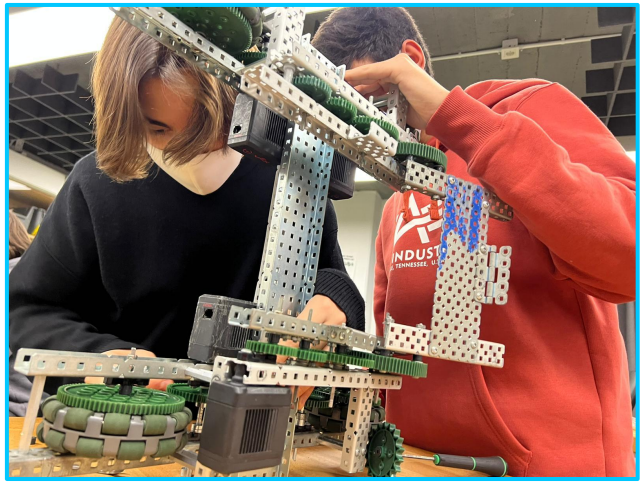
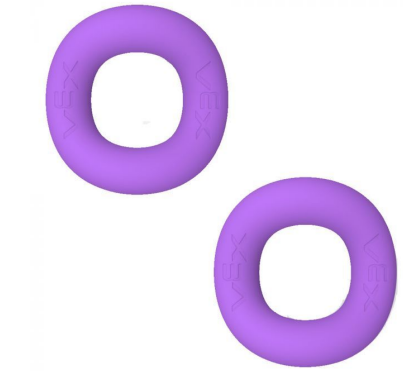
Diversity of Perspectives



Our team consists of a mix of two old teams: Four girls from last two years' Decabots, two boys from an older team, "Nova", and three inexperienced members. The **diversity** of our team has created many advantages. For instance, the two experienced members from the other team brought Decabots distinct **perspectives**. Furthermore, the newer members of our team encouraged us to view the problems of our robot from **different aspects** by asking us challenging questions. By working together and laboring, the construction of the robot became faster and we added new things to ourselves each time.

The “Rings” That Bind Us



As the more experienced and older members of Decabots, our eleventh graders made it a mission to themselves to help our new, younger members both in their academic and personal lives outside the mechatronics lab. Experienced members became **mentors** by arranging free times to talk about other member’s future thoughts and what their aims are. These kinds of instances helped us **bond** much quicker. We, as individuals in a team, have interests and various hobbies other than VRC which assists us in bringing contrasting and divergent perspectives to the design process of the robot alongside the coding procedure. Being able to present our interests and hobbies freely and fearlessly makes our working environment more **efficient** and encourages us to be more comfortable around each other, especially when it comes to **sharing** our thoughts.

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Team Members

Ada Çelik (she/her)

- Mechanic
- 3D Designer

Defne Konuk (she/her)

- Lead Programmer
- Mechanic

İremsu Baş (she/her)

- Captain
- Mechanic
- Lead 3D Designer

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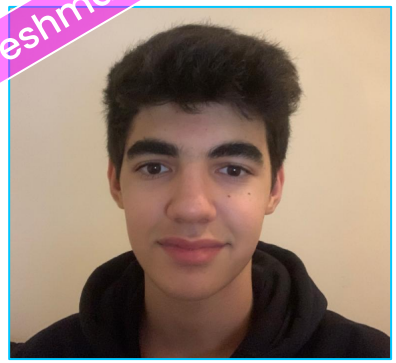
Team Members

Freshman



Bartu Öncül (he/him)

- Mechanic

Lara C. Ergenç(she/her)

- Lead Mechanic
- Programmer

Junior

Sophomore

Utkan Çelik (he/him)

- Mechanic

Team Members

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Mert Şumlu (he/him)

- Mechanic

Freshman

Junior

Ahmet Burhan Baş (he/him)

- Mechanic

Junior

Berkin Öz (he/him)

- Mechanic
- Programmer

Reaching for Our Mobile Goals

STEM Stories

Ada Çelik

I first became interested in STEM and robotics when I was in fourth grade and watched a movie on humanoids. I pursued my interest further by attending a summer course in Harvard on 3D printing before starting sixth grade. By seventh grade I was brainstorming name ideas for the humanoid creating company I aspire to start in the future. Once I started high school I started looking for projects that could aid me in developing my CS skills. I joined projects such as FTC, Shell Eco-Marathon, and of course, VEX. I have been a part of the VEX competition and Decabots for two years now and I have gained endless amounts of knowledge from my teammates, mentors, and most importantly, from learning to design, code, and build a robot entirely from scratch

Defne Konuk

Different areas of STEM have been involved in my life one way or another. Starting from when I was a mere 'tod' I watched every science fiction movie I could find with my dad and was slowly pulled to the dark side by all the sci fi novels I read. My dad, who's also a space enthusiast, taught me everything that my wee brain could grasp about physics and the stars, setting me on my way to a life filled with existential crisis'. Although I'm leaning towards studying art, STEM will have a special place in my heart and joining mechatronics is my way of satisfying my love for science and engineering.

STEM Stories

İremsu Baş

My robotics adventure started when I was 12 years old. I joined the FLL team of our school and participated in the competition. However my STEM adventure goes way back. When I was a little kid I used to catch bugs and little animals with my brother. We observed them, sometimes fed them and tried to learn their latin names. After our research was complete we released them to nature. My STEM adventure continued when my parents got me a telescope. I observed the planets, watched meteor showers and tried to complete the constellations from my mind. Since that time I have wanted to study astronomy and engineering.

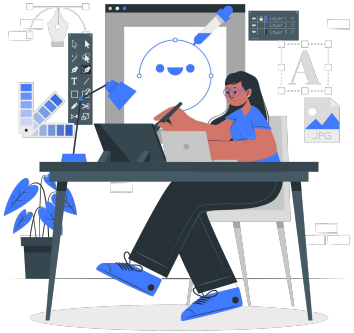
Bartu Öncül

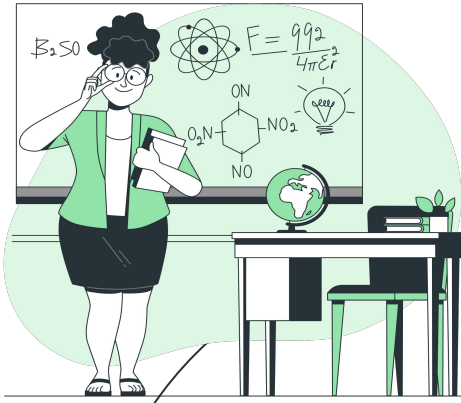
My robotics adventure started this year. I joined the school's FRC team, however I haven't participated in any competitions yet. My fascination to mechatronics started when I was little and making robots with legos. I developed myself over time and my interest in robots increased over time. Now I want to continue my goal which started with building robots with toys, by making bigger things in the future. Now this is my first year in mechatronics and I want to improve myself as soon as possible and become an engineer in the future.

STEM Stories

Lara Ceren Ergenç

My robotics journey started when I first joined the FTC team in our school. I had the chance to learn and understand the general traits of mechanics and electronics, and from this experience I had the chance to figure out my interests. However, my first interaction with STEM was way before that. Since I was a little kid, I always took place in math clubs and competitions. I always had a special place for “mathematical mind-games”, problem solving and code breaking tasks and puzzles. This interest of mine encouraged me to take coding lessons and investigate more about engineering in high school. This led me to join the Vex robotics team and be a part of a group to explore much complex systems and cases.





"Tipping Point" of our Interest in STEM

Our role model is Nichelle Nichols, who is the actress that brought the iconic character, Lieutenant Uhura to our screens while taking on the honor of being the first black lead on TV. Playing a vital role in the original crew of the USS Enterprise, Nichols has inspired many young women by becoming a role model. While the initial backlash she faced from the public urged her to resign, she persevered and went on to help NASA recruit many women and people of color to its space program. Although she may not be a scientist in real life, because most of us have watched Star Trek at a young age, she has sparked our interest in STEM and showed us that it's not only men who can play a role in science.

"Science is not a boy's game, it's not a girl's game. **It's everyone's game.** It's about where we are and where we're going. Space travel benefits us here on Earth. And we ain't stopped yet. There's more exploration to come." -Nichelle Nichols

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Credits: Lara Ceren Ergenç, Defne Konuk, İremsu Baş, Bartu Öncül, Ahmet Burhan Baş, Ada Çelik

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