

# Blick

december 2023



ENG



## Our Mission

Welcome to "Blick", a magazine that crosses borders to showcase innovations in robotics workshops worldwide. Blick is a collaboration of #20092, a dynamic German FTC team, and #8058, a passionate Turkish FRC team. This publication serves as a beacon for the global robotics community and to all those who wonder what happens behind the closed doors of our robotics workshops by offering a glimpse into the common mission that unites us all.

Our mission is clear: to provide an insightful platform where robotics enthusiasts, teams and communities from different corners of the world can share their experiences, projects and aspirations. Through this collaborative effort, we aim to foster a sense of unity and cooperation between teams, transcending cultural and geographical boundaries.



FRC Team #8058  
IEL ROBOTICS  
ISTANBUL/TÜRKİYE  
@ielrobotics



FTC Team #20092  
Robotic Tech Frox  
STUTTGART/GERMANY  
@robotictechfrox

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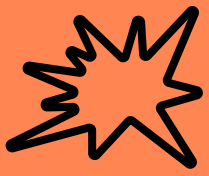
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# Blick

## Who are we?

### *#8058 IEL ROBOTICS*



Istanbul Erkek Lisesi Robotics Club As IEL ROBOTICS, we are a student club dedicated to bringing technology, software and engineering culture to our students at high school level.

Our club was founded in 2019 by the IEL'23 class. Currently, the number of members in the team is about 50 and 40% of the team is made up of female students. There are 5 different departments in your team. These departments are as follows; Software, Mechanics, PR, Design and Electronics. We are proud to have successfully represented our school and our country in national and international competitions since our establishment.

Until today, both as a team and individually, our team members have achieved significant success in many competitions. Some examples of these are Teknofest, Jugend Forscht and FRC. At the same time, we organize projects such as RecycleFIRST and El Ver and show that we contribute to our community.

**check out our website for more >>>**





# #20092 Robotic Tech Frox



We are the Robotic Tech Frox, one of the 4 FTC Teams at Königin Katharina Gymnasium. Our team is made up 8 of students from grades 8 to 12. Our goal as #20092 is not only to connect with other teams from around the world, but also to reach out to future FTC participants and get many people excited about FTC. We completed last season with 3 awards: Think Award in Lyon, Connect Award in Lyon and the Think Award in Oberkochen Unofficial and started this one with a second place ranking at Benelux.

check out our website for more >>>





# Blick

## What do we mean by “robotics” ?

We often get the question “What do you do in robotics?” or “What can your robot do?”. Since robotics is such a vast field, this confusion is self-evident. However explaining FIRST is not an easy task, as it is much more than robots. No our robots don't fly, at least they shouldn't, and no we don't build smart home robots you can chat with.

We build robots to participate in FRC and FTC, two international robotics competitions.



FTC stands for "First Tech Challenge". Every year, the non-profit organization First presents new tasks that have to be mastered with a self-built and programmed robot.

The more tasks you successfully complete with your robot, the more points you receive in the various games, also known as matches. The teams with the most points win the match. Each match lasts 2:30 minutes. The first 30 seconds are the Autonomus mode, followed by 1:30 minutes of the "Driver-Controlled" period, in which the robot is controlled by the two drivers. At the end, there are 30 seconds left for the endgame, in which the robot continues to be controlled. The difference is that special skills can be used, such as hanging the robot from a pole, as required this year. In a match, two teams always compete against two other teams.

If a team wins many matches, it can qualify for the next round. First, each team takes part in a so-called League Meet. If the team achieves an outstanding ranking - the number of places available varies depending on the country - it qualifies for the Championship. At the Championship, the team does not necessarily have to be the best overall, but must excel in a specific category to advance to the World Finals. The ultimate goal of each team is to participate in the World Finals in the USA and, as achieve a good ranking there.

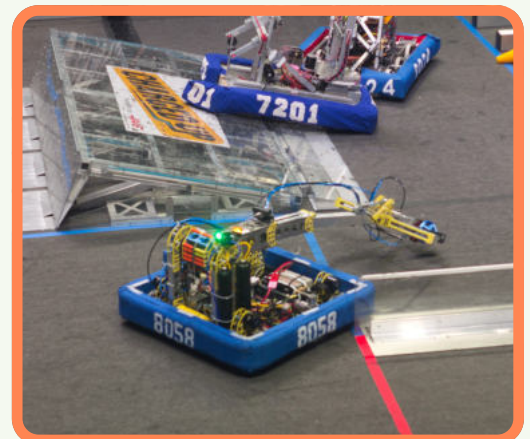
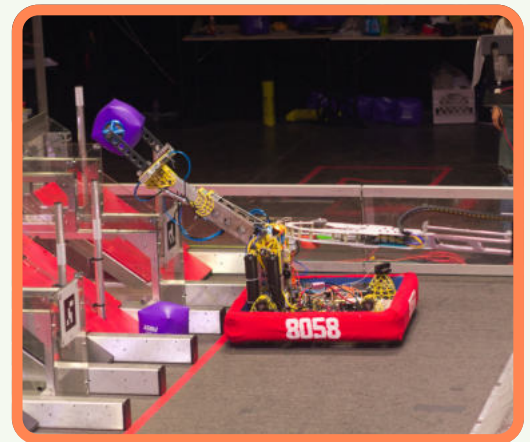




FIRST Robotics Competition is the largest international robotics competition for high schools worldwide. Today, more than 3000 teams from all around the world participate. Within the framework of clear rules, FRC challenges competitors to come up with creative solutions, using teamwork and engineering skills to build a robot in a limited time frame.

At the Kick-Off event held in the first week of January every year, that year's theme and game are announced. The clock starts ticking for teams to construct a robot suitable for this new playing field, scoring rules and tasks. The playing field is sized 16×8m, but the field pieces and scoring rules change every year. Matches are played between two alliances of three teams each, red and blue. For the first 15 seconds of the game, the robots are autonomous, while for the next 2 minutes and 15 seconds they are controlled by two drivers from each team. The alliance that reaches a higher score wins and the ranking of the winning teams increases. As a result of the ranking matches, the top eight teams choose their alliances for the Playoffs and Playoff matches are played. The winning alliance wins the Winner's Award and qualifies for the World Championship.

FRC is more than a robotics competition, it supports high school students to advance themselves in engineering, problem solving, teamwork and contributing to their communities. This is further encouraged by awards such as Impact, Deans List, Team Sustainability Award.





## ROBOTICS FAIR

On December 22, 2023, we went to the Robot Investments Summit at the Istanbul Expo Center. We held meetings with many companies in the fields of technology and energy.

## ALUMNI VISIT

In 2022, Şebnem Kılıçkaya, one of our alumni who graduated from our club, came to visit our school and our club. She met our new members and gave them a mechanics lesson. We all had a pleasant time with our alumni members.

## WORKSHOP FOR STUDENTS WITH NEURODIVERGENCE

As İELRobotics, we visited the Tohum Autism Foundation's school. We scheduled a program for the coming weeks for the design lessons on TinkerCAD and software lessons on Scratch that we will be holding in the future with our special friends there.



## TEAM MEETINGS

This month, we got to meet Saintech Robotics, Emoner Robotics, Fusion Robotics and Team Sirius. We exchanged ideas about the upcoming season and talked about recent projects.

## 8058ALUMNI

We released the first episode of our YouTube series "8058alumni", where our new members interview our alumni and get to learn from their experience. Our graduate Reyhan Tağman, our former PR captain, shared her experiences with us.



## ARDUINO WORKSHOP WITH MIDDLESCHOOLERS

We started various projects with two classes at Büyük Reşit Paşa Secondary School. We are conducting software, mechanics and design-oriented lessons with our middle school brothers and sisters on various projects such as parking sensors, fire alarms and traffic lights with TinkerCAD, Arduino and MBlock.

## IELLEGO

This month we hosted IELEGO, the FLL team we mentor, in our school. They were eager to learn about FRC and drive our previous robot.



All in all, we made progress both on our robot and socially in December.

We did a major rebuild of our robot. Made great progress with code for Autonomous.

We were also pleased to have organized a meeting with another FRC team, Team Spyder from California.

Our first virtual meeting with IEL ROBOTICS, where we talked about FTC and FRC and showcased our robots, was also in December.

Additionally, our team prepared for judging.

Overall, we did, what you do as a robotics team.



# Blick

## Our Sponsors

We extend our heartfelt gratitude to our 2023-2024 sponsors for their unwavering support, which not only fuels our enthusiasm but also nurtures our interest in STEM, propelling us towards a future filled with innovation and endless possibilities.



# BOEING

## ALPHAN ÇULHA



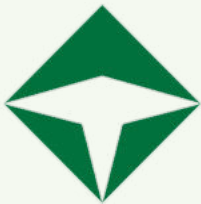
İELEV  
İstanbul Erkek Liseliler  
Eğitim Vakfı



İELDER  
İstanbul Erkek Liseliler Derneği



IEL VEREIN



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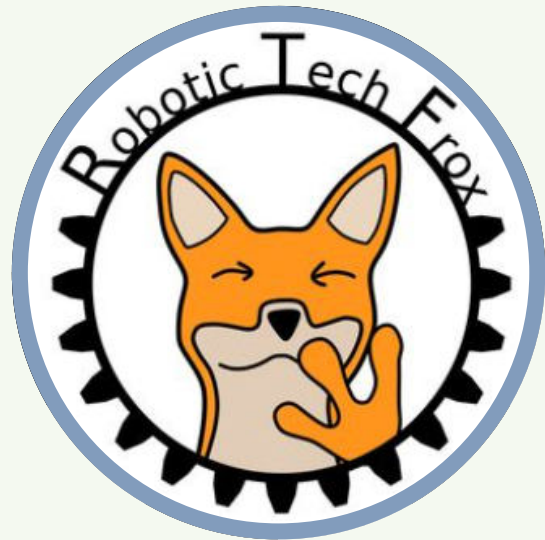
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Baden-  
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WIR STIFTEN ZUKUNFT

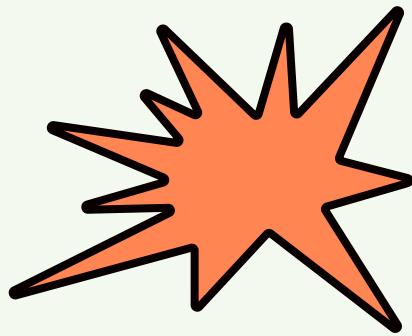
Aralık  
Dezember  
December

**presented by**



**#8058 and #20092**





Dünyanın dört bir yanındaki robot odalarına aylık bir bakış  
Ein monatlicher Blick auf Robotikräume rund um die Welt  
A monthly look at robotics labs around the world