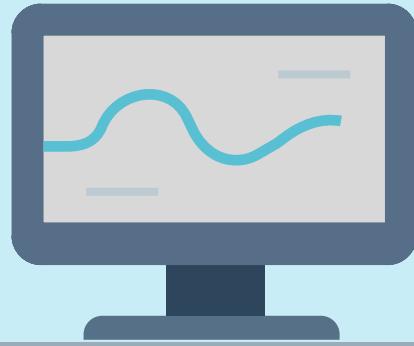
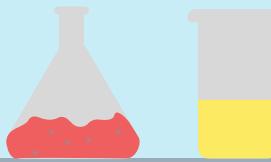


First steps

STEM magazine

Robotics



What's inside

Everything you should know about robots, First and the new meteor. Inside, easy experiments to do at home and inspiration from the technological world await you.

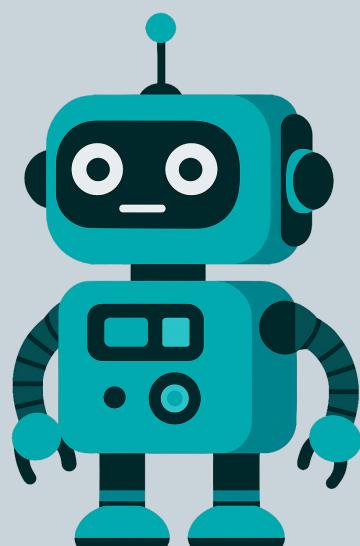


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The Purpose Of The Magazine

We are the robotics teams in the FRC program:

Neat Team #1943 – the robotics team of Begin High School, Rosh HaAyin

Cypher #4661

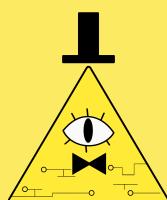
Falcons #4338

We believe that together, by uniting three teams and embracing the core values of FIRST, we can pass these values on to the younger generations – nurturing curiosity, encouraging out-of-the-box thinking, and promoting the world of science.

That is why we established First Steps!

We are proud to present our STEM Magazine Project – focusing on Science, Technology, Engineering, and Mathematics – designed for all ages, especially elementary school students.

The goal of the magazine is to introduce younger students to the world of STEM and the FIRST community!



. Cypher #4661

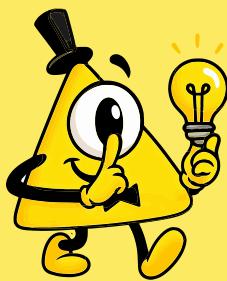


Falcons #4338



Neat Team #1943

Good To Know!



- Every month, the magazine will be published on the website of each group.
- The magazine is translated into Hebrew and English
- The magazine is based on Internet information sources, numbers and general information

Monthly update

Every month we bring you a special look at the activities of our three **FRC** groups. Here you can follow the path each team goes through - from the first stages of planning, through the working hours in the workshop, to the exciting moments in the competitions . The updates are not only about robots - but also about the way the team members face challenges, find creative solutions, and collaborate to achieve a common goal.



The Neat Team #1943 Mrosh Ha'Ain the robotics team of Begin High School

This month we competed in the OFF SEASON competition! . The national FRC pre-season competition!

Although we didn't win a particular prize, the robot we built was entirely built and drawn by our new team members, which is a great achievement! After the competition we started working on a pre-season project - a junior robot, a recruitment robot, a robot with which we will operate on recruitment day after our competition season in order to recruit new team members . To the group.

so what is our recruiting robot? . Its purpose is to pick up balls from the floor by a pickup mechanism and fire them by a shot mechanism . We chose these mechanisms to investigate a floor pickup mechanism that we haven't researched yet!

Also, this month we brought back our FLL group! . A robotics group intended for elementary students whom we supervise in our workshop!

Cypher Group #4661 from Herzog School Beit Hasmonei

What a crazy month we've had! . In the off-season competition, we performed excellently and finished in 17th place; . An achievement we are very proud of. Beyond the competition, we continued to strengthen the relationship with the members of the Alsana group, because in our eyes community and cooperation are no less important than the results. And on the creative side, we worked on the team's new shirt, which is starting to look amazing.



Falcons group #4338 from Evan Yehuda

Last month, we came out to support our beloved friends in the off-season competition!

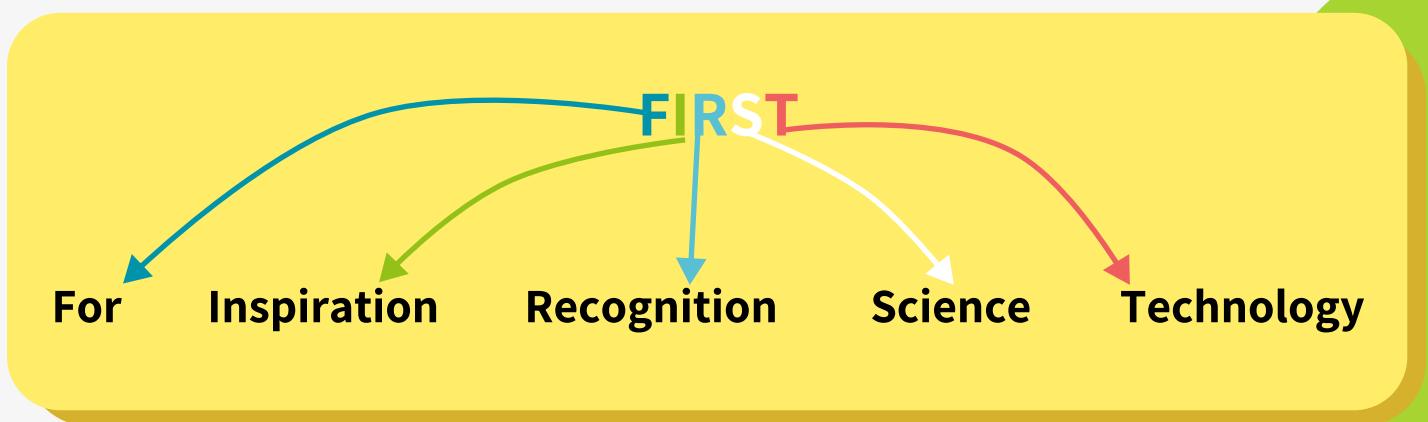
We hosted the fun family challenge together with our FLL group, Aqua Bots.

We worked a long time together with the parent committee to make the coolest and scariest decorations and together we finished building the haunted house that happens every year only this time everyone is especially haunted at the American school Halloween event!

In addition, we guided the friends . Our newbies on the bases for building this year's robot!

Monthly topic-FIRST

The acronym FIRST stands for- For Inspiration and Recognition of Science.



FIRST is an organization that runs a unique set of educational programs based on hands-on learning, exposing students to engineering and programming in an engaging, inclusive, and creative environment. Within this framework, students work together to tackle an innovative robotics challenge unveiled each year.

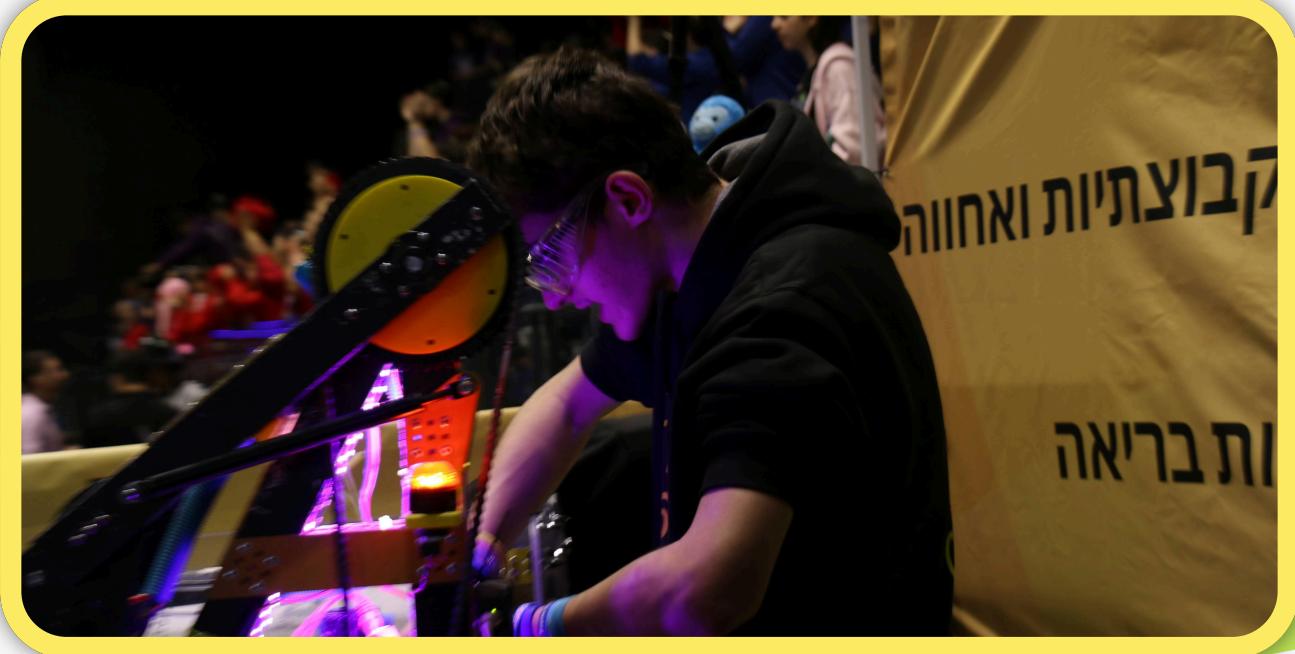
The organization's programs are divided by age groups, and each combines challenge, creativity, and excitement while fostering essential real-world skills such as leadership, self-confidence, interpersonal communication, teamwork, decision-making, planning, resource management, and more.

The three main tracks are:

FLL (FIRST LEGO League) — for grades 4–9.

FTC (FIRST Tech Challenge) — for grades 7–12.

FRC (FIRST Robotics Competition) — for grades 9–12.



We, the Neat Team, Cypher and Falcons, participate in the FRC track. This track blends the excitement of sports with the precision and rigor of science. FRC teams, typically comprising about 20–30 students, take on a wide range of tasks: from establishing and branding the team, through fundraising and defining strategy, to designing, building, and programming a robot. All of this is carried out under clear rules and tight timelines. The rules and schedule are revealed to all teams worldwide at the annual Kickoff event, where the season's new challenge is presented



Scientific Experiments

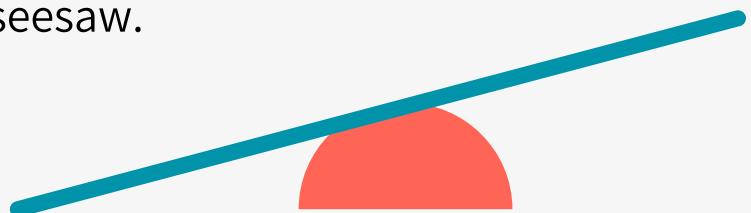
Creating a mechanism

what is needed

1. A small object (like a small ball or a small game)
2. Ramp (you can use a ruler or cardboard)
3. Eraser/pencil

Step 1: Building the Lever

- Take the ruler (or cardboard strip) and place the eraser under the middle of the ruler/pencil so that the ruler balances on the eraser like a seesaw.



Step 2: Placing the Toy and Launching the Lever

- Place the toy on one end of the ruler.
- To launch the lever, quickly press down with your hand on the other side of the ruler.



Explanation

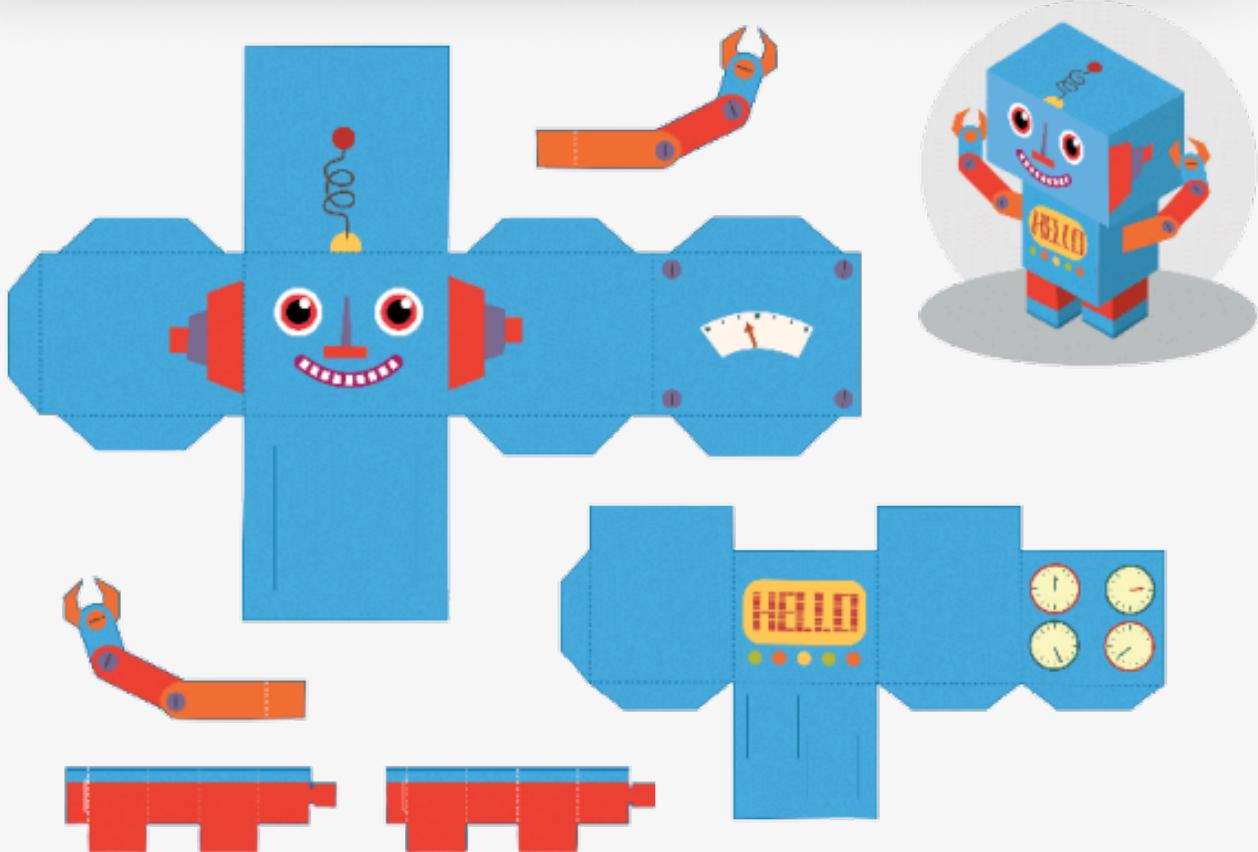
We've just created a lever, which is a very powerful tool in the world of physics and mechanics. It helps transfer parts or objects from one place to another. In everyday life, we use many different types of levers (like seesaws, scissors, shovels, and more).

Scientific Experiments

my robot

what is needed

Print the following picture and you can make your own robot, have fun, color it and don't forget to give it a name



explanation

We wanted you to have your own robot just like we build a robot every year, you too will build one. It would be really cool to have your own robot and be able to name it (we do that too) so don't forget to have fun!

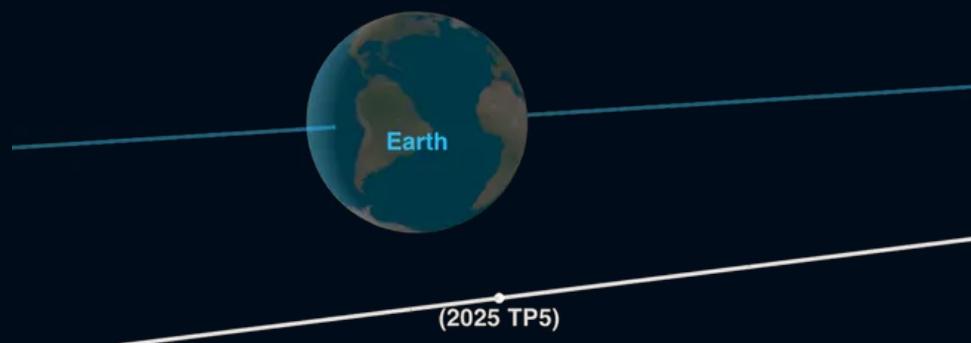
current affairs

A new asteroid passed close to Earth

On October 15, 2025, a new asteroid named 2025 TP5, discovered just two days earlier, passed by the Earth at a distance of only about 97,000 km—less than a quarter of the distance to the Moon!

The asteroid is very small, so scientists could not detect it in advance.

The passage was completely safe, but it reminds us that space is full of surprises.

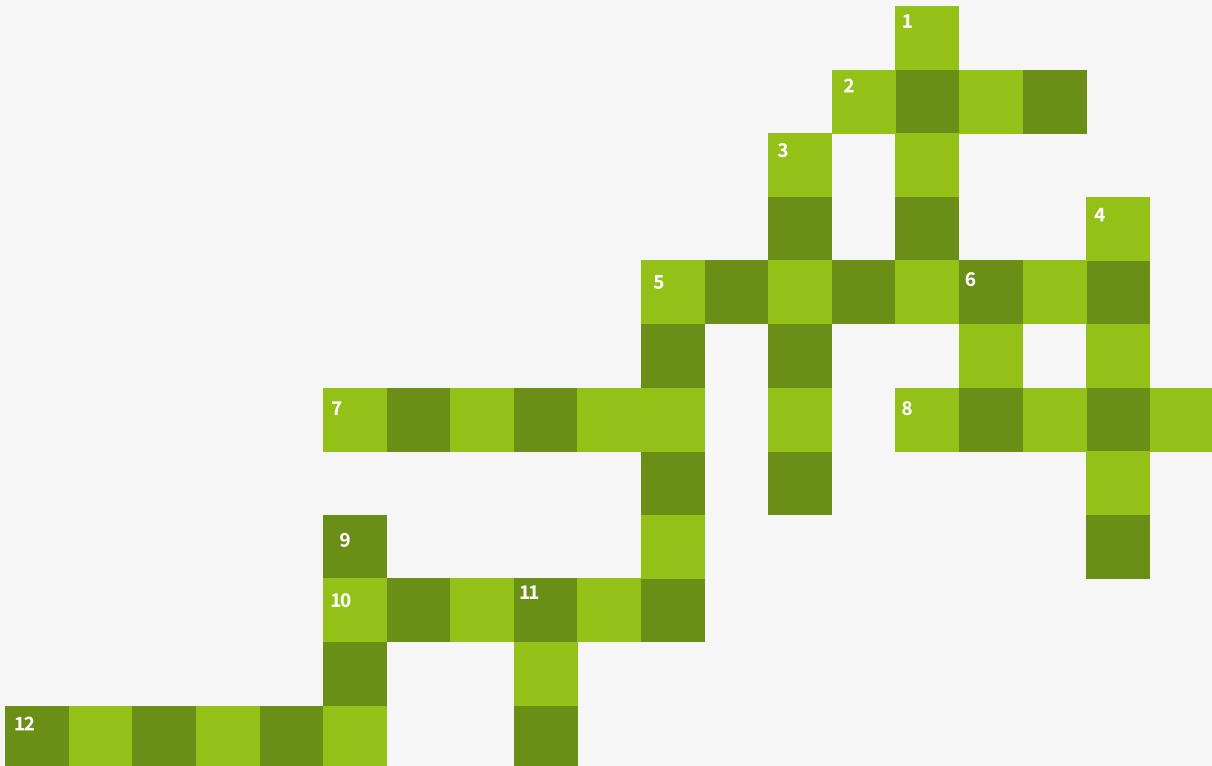


Follow us!



Games

In a crossword puzzle, you fill empty squares with letters based on clues. Each clue leads to a word, and the word is written in the direction shown. The goal is to fill the entire puzzle correctly so that all the words match their clues.



Horizontal

- 2. a combination of Cl+Na (edible)
- 4. (Cl) used to clean pools
- 6. (Cu)
- 8. a material that keeps its shape no matter where you put it.
- 10. (O)
- 12. A material that flows and takes the shape of its container

Vertical

- 1. (H2O)
- 3. (Ag)
- 5. (He) often used to fill up balloons
- 7. (C)
- 9. (Fe)
- 11. (Au)
- 13. A material that has no fixed shape and it just expands everywhere it can.

Games



Credits

this month's experiments:

Or - from the group Neat Team #1943

- 10th grade, first year in the team
- Responsible for the YKM team

Gor - from the group Falcons #4338

- 12th grade, year . Second in the team
- in the mechanics, community, video team

monthly current affairs:

im - from the Neat Team #1943

- 12th grade, second year in the team
- Team member . Sartot

Romi - from the team Falcons

#4338

- In 10th grade, second year in the team
- Community and QA team leader in the design, strategy, media team

games and puzzles:

Rotem - in 11th grade, second year . in the group
in the mechanics, design and construction team

design of the magazine:

Lior - from the group Cypher #4661

- Team captain

monthly updates on each group:

Ariel - from the group Falcons . #4338

- 11th grade, third year in the team
- Co captain, head of the community media and electronics team

Atlia - from the Neat Team #1943

- 12th grade, third year in the team
- Team captain

monthly STEM topic:

Shir - from the Neat Team #1943

- 12th grade, third year in the team
- mechanics team member and media manager

Ariel - from the Falcons team .

#4338

- 11th grade, third year in the group
- Co-captain, head of community media and electronics team