

Alphatronic

The official robotics team of Transylvania College.

A team of students from Transylvania College in Cluj-Napoca participated this year in February in the international competition First Tech Challenge. Team code is 24033. This team has been competing in the FIRST Tech Challenge for 0 seasons, and a total of 4 official events since 2019. They were a rookie (and began competing) in 2023 and remain active as of the current season, 2023-2024 The FIRST Tech Challenge teams (up to 15 team members, grades 7-12) are challenged to design, build, program, and operate robots to compete in a head-to-head challenge in an alliance format. Guided by adult coaches and mentors, students develop STEM skills and practice engineering principles, while realizing the value of hard work, innovation, and working as a team. The robot kit is reusable from year to year and can be coded using a variety of levels of Java-based programming. Teams design and build robots, raise funds, design and market their team brand, and do community outreach to earn specific awards. Participants are eligible to apply for \$80M+ in college scholarships.



Fig.1. Current roster from Transylvania College

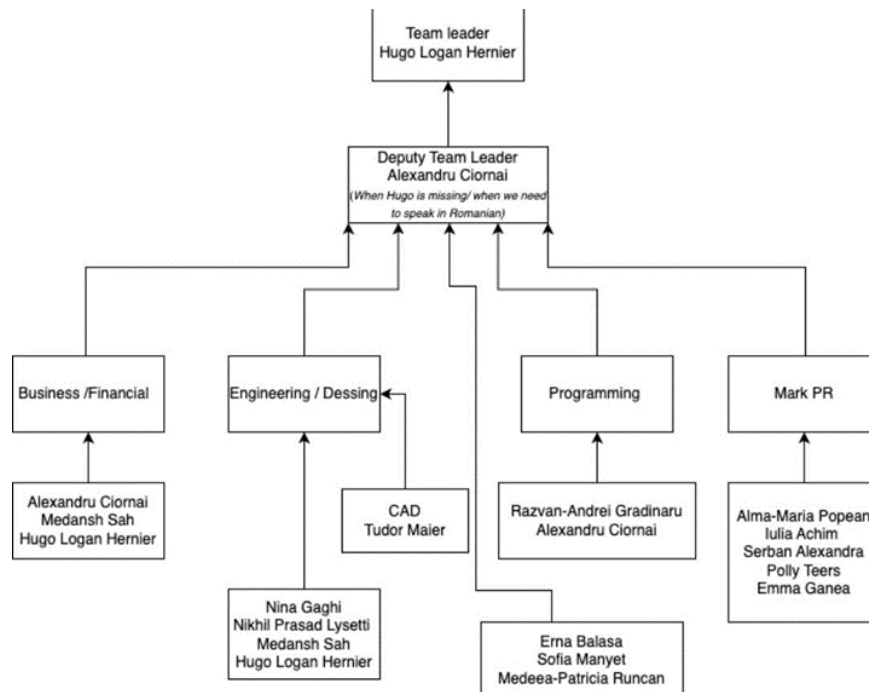


Fig.2. Team structure

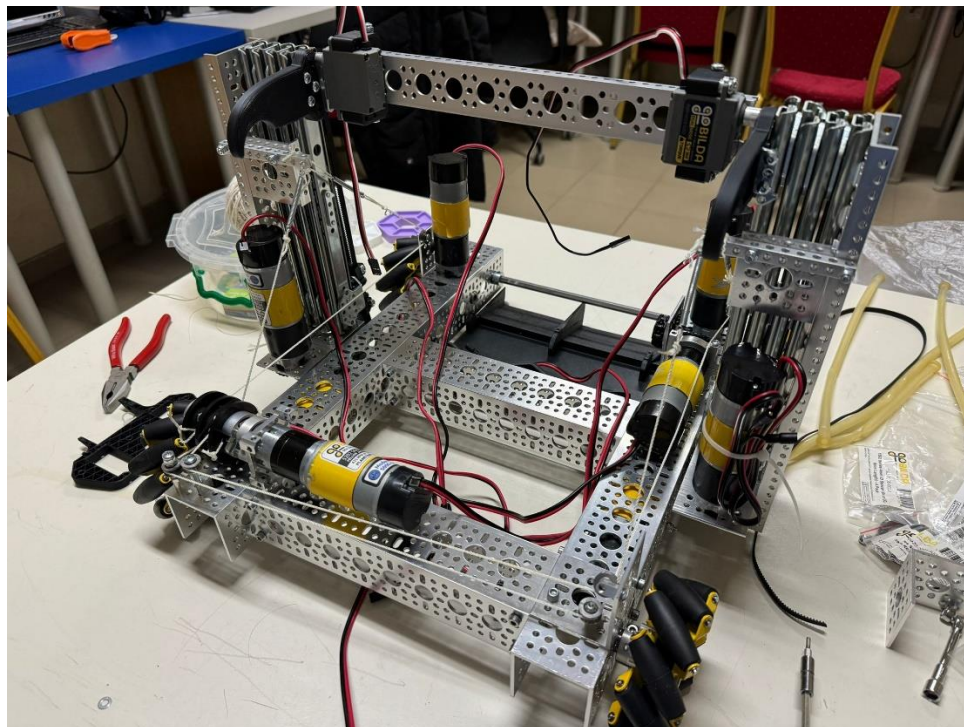


Fig.3. The robot built for competition

A brainstorming session took place in the building of the Technical University of Cluj, where the students asked for the guidance of the university teaching staff to solve some technical problems before finalizing the structure of the robot.



Fig.4. A brainstorming session

They had a third of the robot because the parts arrived very late, and they improvised with what they had. They didn't have the autonomy and neither did the drones. However, they were 4th out of 10. They are now working on the final model.

Match #	Red		Blue		Score	
Qualification 2	19101 Tech-X	19115 B-Robo	18338 StarTech	24033 Alphatronic	107	83
Qualification 4	17965 BOLTS AND GEARS	24033 Alphatronic	19058 Modus Vivendi	18338 StarTech	58	93
Qualification 6	24033 Alphatronic	19101 Tech-X	19058 Modus Vivendi	24310 EXOROS	95	18
Qualification 8	18338 StarTech	24310 EXOROS	24033 Alphatronic	17844 RUBIX	50	82
Qualification 9	24033 Alphatronic	19058 Modus Vivendi	19115 B-Robo	17844 RUBIX	50	150
Qualification 11	17965 BOLTS AND GEARS	24310 EXOROS	19115 B-Robo	24033 Alphatronic	21	129

Fig.5. Qualification Matches



Fig.6. the day of the contest