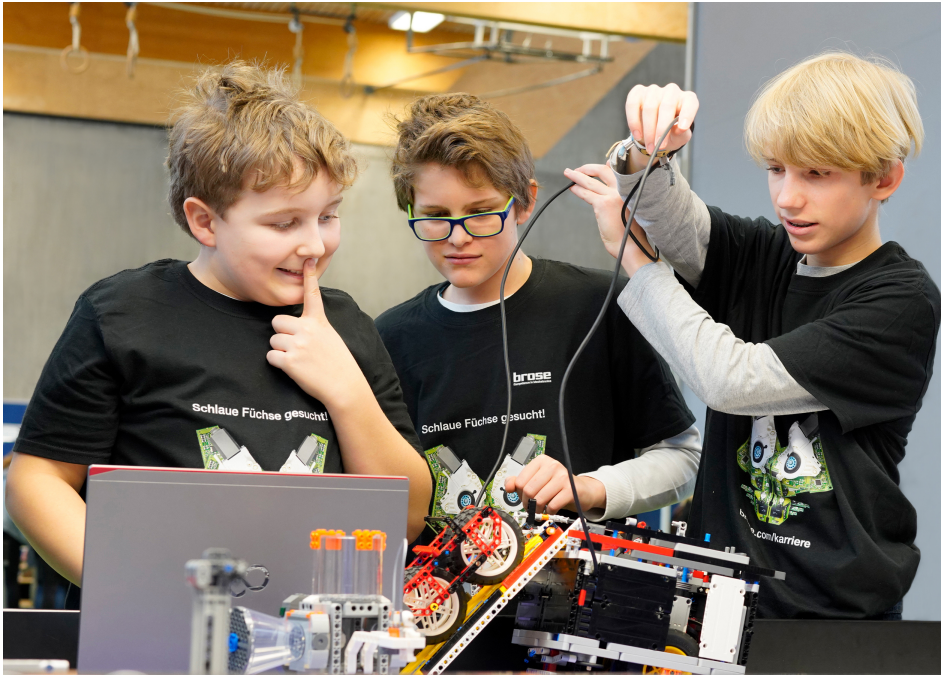


Robot competition in Würzburg: Tinkerers, researchers, programmers welcome



Will this work? Thorben, Jonas and Fabian (from left) from Deutschhaus-Gymnasium in Würzburg are curious whether their robot can solve all 15 tasks independently.

Würzburg (11. January 2019) The robot made of Lego blocks moves toward the crater with a quiet hum. In just a couple of seconds, it will pass the obstacle and complete the next mission. Fascinated and visibly excited, the nine to sixteen-year-olds watch the robot from the sidelines to see whether they will be rewarded for their ten weeks of development work. This is decided at the regional competition, the temporary highlight of the First Lego League. On 11 January, around 100 tinkerers from 11 Lower Franconian schools took part on the robotics competition and research project in Würzburg. They presented the results of their work at Wolffskeel-Realschule, following the theme of the competition “Into Orbit – Living and Traveling through Space”.

The objective of the First Lego League is to introduce children and young adults to the world of science and technology in a friendly competitive atmosphere. The idea is to spark their interest in engineering or IT careers as early as possible. The concept works, confirmed Mirja (14) from the Balthasar-Neumann-Gymnasium Marktheidenfeld: “I was already interested in programming before First Lego League, but the competition allowed me to try out a lot more and this increased my excitement.” This was the fifth time that international automotive supplier Brose supported the robotics competition and research project in Würzburg as an organizer and main sponsor. “It is fascinating to see how passionate and ambitious the students are with some very sophisticated technologies,” explained Michael Stammberger, Head of Apprenticeship and Training at Brose Group, and

added: “Weeks of working on the robots and the research tasks have shown these young people what it is like to work in science and technology while also promoting teamwork and developing social skills”.

Robot challenge

The participants spent at least ten weeks preparing for the regional competition with the assistance of an adult coach. Each team consisted of two to ten members. “We met every two weeks and split into the teams ‘Programmers’, ‘Mechanics’ and ‘Creatives’. It’s important that everyone does what they do best,” explained Robin (14) from the Friedrich-Dessau-Gymnasium Aschaffenburg.

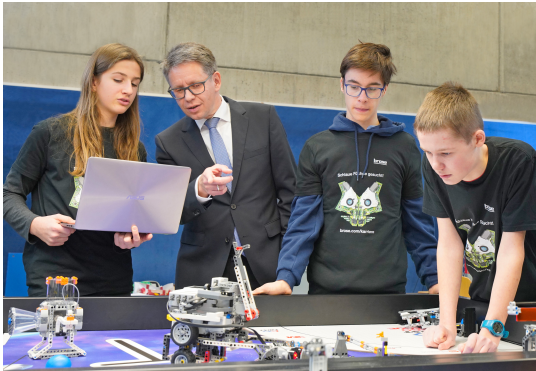
In the practical part, the students developed, programmed and tested a fully-automated robot based on the Lego Mindstorms system. On the day of the Robot Game, the machines had two-and-a-half minutes to autonomously solve as many of the 15 assigned tasks as possible. The self-construction had to move, push, lift, traverse or transport objects autonomously with the help of sensors, electronics and motors. For example, it rescued an astronaut from a dangerous space mission or grew crops on another planet. The panel of judges also rated the robot’s design for creativity, robustness and programming.

Creativity and team spirit

In the second part of the competition, the students presented an individual selected research task based on the theme. They had researched independently, analyzed the information and drafted a solution for a specific problem. They used creative techniques to present their results to the panel of judges. Moreover, contestants had to master a surprise group assignment on the day of the tournament, thereby proving their ability to work as part of a team.

“Building and programming Lego together with friends is the most fun and that’s exactly why I’m here,” said 13-year-old Frederik from the Johann-Philipp-von-Schönborn-Gymnasium Münnerstadt. With his team Robo-Geeks he reached the second place in the overall ranking, winners were the X-Rays@M!ND-Center of the Röntgen-Gymnasium in Würzburg. Both teams qualified with their robots for the Semi Finals on 16 February 2019 at Ostbayerische Technische Hochschule (OTH), a university of applied sciences in Regensburg. The European finals take place in Bregenz, Austria on 29 and 30 March.

Over 32,000 teams in 88 countries participate in the educational program. The non-profit organization “HANDS on TECHNOLOGY” is responsible for the tournament showcasing robots and ideas in Germany, Austria, Switzerland, the Czech Republic, Hungary, Poland and Slovakia. More than 7,000 students in 1,000 teams registered for the First Lego League in these countries.



The members of the Team RIG2018 from the Riemenschneider-Gymnasium Würzburg are explaining Michael Stammberger, Head of Apprenticeship and Training Brose Group, the technical details of their robot.



Winner of the regional competition of the First Lego League: The team X-Rays@M! IND-Center of the Röntgen-Gymnasium in Würzburg.