RoboCup EINDHOVEN 2024

Won TOP Ranks !

2024

1st

and

2nd

Robocup Junior
(up to Age-19
Robotics
Competition)

PLACE International Championship at Eindhoven in Netherlands.

To achieve these outstanding results, it requires more than just a preparation focused solely on competition. These students have built a solid foundation and applied their accumulated knowledge, developed since their early middle school years at Storming Robots.

While standing out in college applications is a significant short-term benefit, the true impact lies in the skills that will empower them to succeed in their college careers and beyond. These foundational skills are critical for long-term success in STEM fields and will continue to serve them well throughout their professional lives.

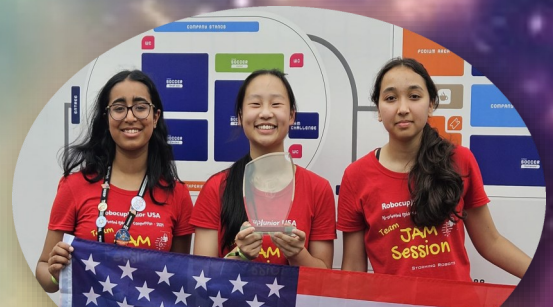**Scan to learn about the Teams**

Scan to learn about Storming Robots

YouTube

1st PLACE
Robotic Simulation League

**Andrew Dai
Gr.10**   **Etaash M.V. Jain
Gr.11**   **Jiachen Jiang
Gr.10**

Techniques involved:
~ Intensive algorithmic development , programming skills.
~ Graph traversal algorithms.
~ Mapping Technique—exploring SLAM Technology
~ Machine Learning
~ Computer Vision. C/C++/Python

Teams are tasked to navigate complex mazes, utilizing a mix of AI technologies and strategic problem-solving. and identifying virtual victims on its way. Team needs to develop and refine systems that can accurately map environments while simultaneously locating themselves within it—despite the absence of GPS data.

Most challenging key component— the application of **SLAM (Simultaneous Localization and Asynchronized Mapping) -** a critical research area in AI and mapping.

2nd PLACE
Robotic OnStage League

**Aditi Gopalakrishnan
Gr.10**   **Julia Chan,
Gr.9**   **Maya Baireddy
Gr.9**

Techniques involved:
~ Creative Theme Design / Planning
~ Knowledge in variety of platforms, Arduino, Raspberry-PI.
~ Machine Learning
~ Computer Vision. C/C++/Python

Their project merged technology with the arts by developing a system that interprets American Sign Language (ASL) into music played on a piano through machine learning and robotic mechanisms.

Utilizing the Random Forest Classifier algorithm for predictive accuracy, they trained a model to recognize ASL hand gestures captured by a camera. The data was transmitted via a Raspberry Pi, which acted as the controller to orchestrate the robot's custom-designed, 3D-printed robot "fingers" by the team.