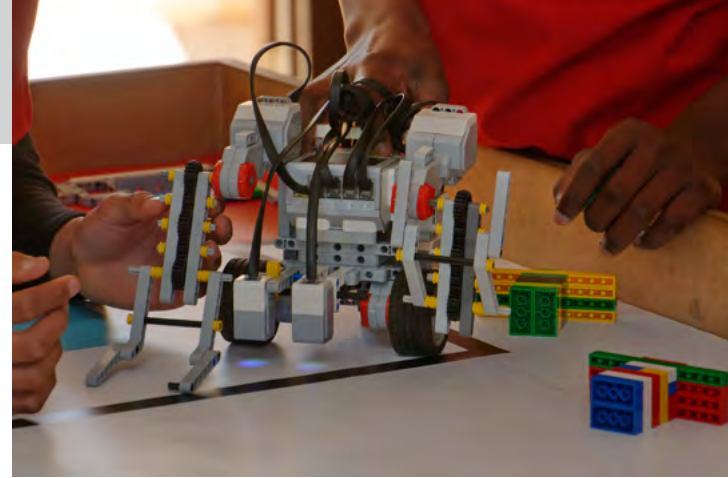
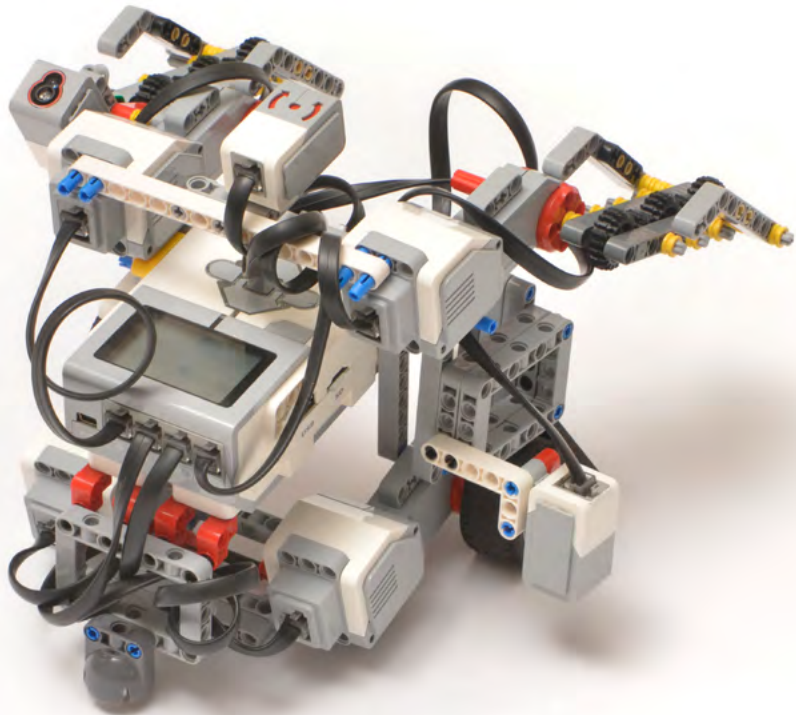


Robotics

Our journey to the World Robot Olympiad (WRO)

What is the WRO?

The *World Robot Olympiad™* is a global robotics competition that develops and strengthens, critical- and creative thinking as well as social skills in young people. These essential skills enable study and career success.



How it works

- There are 4 provincial competitions (one in Kwa-Zulu Natal, one in the Western Cape and two in Gauteng)
- All competitor teams are ranked nationally
- The top 10 to 15 teams are invited to attend and compete in the National event in Gauteng
- Teams winning their category stand a chance to be invited to represent South Africa at the WRO international event
- Each team consists of 2 to 3 learners who participate in levels according to their age
- They need to create, design and build robot models that complete challenges

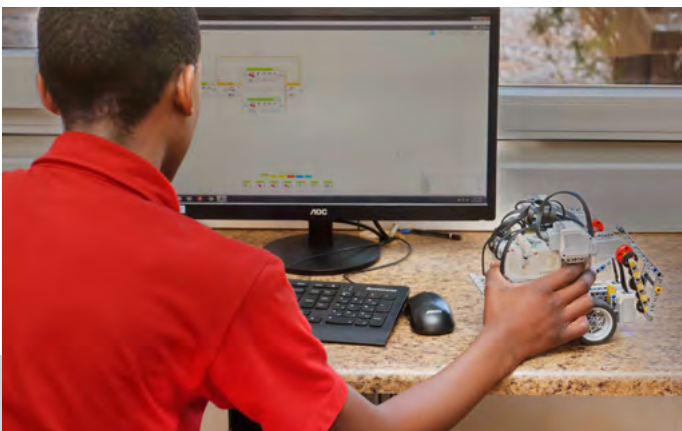
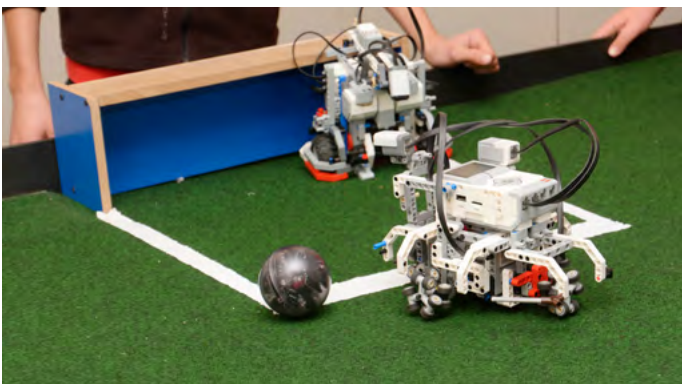


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Levels (age in the year of competition)

Beginner	Participants up to 10 years old
Elementary	Participants 7 – 12 years old
Junior	Participants 13 – 15 years old
Senior	Participants 16 – 19 years old
WRO Football Category	Participants 10 – 19 years old
Advanced Robotics Challenge	Participants 17 – 25 years old



Categories

Regular Category

- Teams build robots that can solve a specific problem
- Teams can build, program and test their robots before the competition
- On the day of the competition, teams must assemble their robot at the event
- The robot can then be tested with pre-written programs

The **winner** is the fastest robot around the course that completes all the tasks successfully.

Open Category

Teams are required to do the following:

- present designs for robots, based on a theme
- decorate their booth with posters and other material
- demonstrate their robot to the judges
- submit a hard copy report about their robot to the judges

The **winner** is the team with the most points earned in the 4 judging categories.

Football Category

- The teams each design and program 2 autonomous robots
- The 2 pairs of opposing robots play soccer with an infra-red ball for 10 minutes a side

The **winner** is the team scoring the most goals.

Robot Explore Category

Robot Explorers is an entry-level challenge for those new to WRO, who would like to participate but do not feel strong enough to take on the formal WRO challenges.

What stays the same as with WRO?

- levels by age group
- challenge mat as per elementary level
- Attachments and programming must be done on the day of the competition

What changes?

- The tasks are more challenging than elementary level
- Teams can arrive with a pre-built robot chassis, but no attachments are allowed

The challenges include:

- line following
- driving around obstacles
- collecting the cubes
- pushing them into the final zones

The **winner** is the team with the highest score out of a maximum of 4 logged scores

