



OneWorld Robotics Competition 2019 – Area Competition

OneWorld Robotics Competition – Smart Cities with Autonomous Vehicles

This year, Actura will be staging its inaugural *OneWorld Robotics Competition*, with “Smart Cities” as its solution category. The aim of the competition is to explore the students’ resourcefulness in finding solutions to real-world problems with the help of robotic technology, while encouraging critical thinking, problem solving, teamwork, effective communication and agility and adaptability. Participation will broaden the acquired STEAM-related skills and deepen the critical approach to problem solving, stimulate curiosity and encourage a design-thinking approach.

Students will be able to utilise robots as an integral part of a solution to a real-world problem while allowing for the comparative evaluation of different approaches. The contest will foster collaboration and teamwork between team members as well as other external teams. “One student, one robot, one world” is the motto that in essence strives to create a network of cooperation in the development of learning STEAM skills. It also awards each and every student with an opportunity to master the robotic concepts, apply transferable skills to a wider context, create ideas and finally, become valuable members of future societies.

The adjudication will be carried out by a panel of industry experts and educators. Students will consider the issues surrounding the problems associated with smart cities such as transport congestion, pollution, environmental sustainability and over-crowding. Students will also consider the relevant social, ethical and legal issues surrounding environmental impact, regulating traffic, accident management and control and consequent privacy and cybersecurity risks, in conjunction with their application of robotics techniques to arrive at a solution. The adjudication process will focus on the critical thinking process and not just the technical application of robotics in assessing what the students finally present.

Actura

Actura provides the leading STEAM learning solutions spanning from in-class to out-of-class environments. Our FlipRobot range provides the ultimate robotic STEAM learning solution for the in-class environment. For the out-of-class solution, the CASE Space School International Study program aims to deliver the once in a lifetime, best STEAM experience at the most inspiring organisation, NASA.

Scorekeeper

The scorekeeper for OneWorld Robotics Competition is a volunteer position. Scorekeepers observe matches, count game pieces, and input scores. Work under the direction of the Head Referee. This role is a physically active role positioned on the perimeter of the playing field.

Responsibilities

- Contribute to a positive and fair competition environment for all participants
- Monitor/promote safe practices on and around the playing field - lead by example
- Wear safety glasses when in the arena
- Score teams base on their technical challenges' performance
- Do a final count on total scores for teams' technical challenge performance

Experience and Skills Needed

- Exceptions may be granted by event Volunteer Coordinators after review and approval by Actura Staff
- Ability to collaborate with others, work as a member of a team
- Approachable personality; high energy
- Strong communication, diplomacy skills and an eye for detail
- Ability to "take charge"; be assertive, but tactful
- Ability to move about the field and stand for long periods of time

Volunteer Time Commitment

2-day commitment (Area Competition)

Note: Event schedules vary. Please check the event schedule and talk to your Volunteer Coordinator for detailed information on when you are expected to arrive. Volunteers should arrive on site 15-20 minutes prior to the start of every shift to allow time to check in at the Volunteer Registration table.

Training

Training support will be provided prior to the competition.

Final training will be conducted on-site by the Head Referee.

Reporting Relationships and Supervision

Direct supervision: Head Referee

On-site guidance: Volunteer Coordinator

Disclaimer and further information

- Must sign a Conflict of Interest and Disclosure Statement prior to start of service
- have a valid Working with Children number

CASE

California Association for STEAM Education (CASE) is a non-for-profit STEAM education organisation based in Cupertino California USA. It aims to design and deliver the most inspiring and innovative STEAM based educational programs where students will acquire and master critical transferable skills for their future success.