

CoSpace Grand Prix Challenge Rules 2015

In the CoSpace Grand Prix Challenge, teams need to code both real and virtual robots and present a Robot Race in the real-virtual co-existing space.

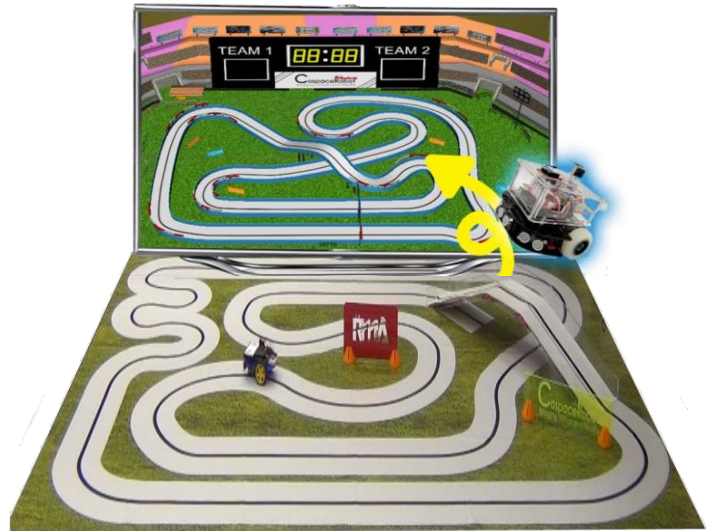
The teams participating in the CoSpace Grand Prix Challenge Primary Challenge must consist of at least 1 RoboCoding Team and 1 RoboMaker Team. All teams involved should contribute to the programming of the virtual robot and making of the real robot. It is assumed that teams will use the self-made Arduino-based real robot, however, modifications will be welcome.

The teams participating in the CoSpace Grand Prix Challenge Secondary Challenge must be responsible for programming both real and virtual robots. A standard real robot platform will be used.

GENERAL RULES

1. GAME DESCRIPTION

1.1 In the CoSpace Grand Prix Challenge, each team will have two robots, a virtual robot and a real robot¹. Teams have to develop appropriate strategies and program both real and virtual robots to race in the real/virtual coexistent space. The Race begins with the real robot racing on the real racetrack. It will then be teleported to the virtual space to complete the race on the virtual racetrack. The robots should complete the mission as fast as possible within a limited period of time.



¹ For primary age group, the real robot is referring to the Arduino-based robot made by the RoboMaker team.

For the secondary age group, the real robot is a standard robot platform.

2. ROBORACE

- 2.1 Teams will be given 2 minutes for last-minute calibration and testing of the robot before the start of the race.
- 2.2 The robot will start within the area designated before the starting line in the real field. The CLOCK will only start when the robot passes the starting line in the real field and end when the robot passes the finishing line in the virtual racetrack. All timings and robot teleportation will be controlled by the referee box. The referee will do a manual time keeping of the race.
- 2.3 Team needs to program both real and virtual robots.
- 2.4 Only one team is to race at one time. Each trial has a maximum time limit of 8 minutes.
- 2.5 Ranking

	Situation	Performance
Case 1	The real robot is not able to complete the race in the real world.	The race time and distance travelled will be recorded. The robot performance is determined based on the distance travelled.
Case 2	The real robot completes the race in the real world. The virtual robot is not able to complete the race in the virtual world.	The race time and virtual zone travelled will be recorded. The robot performance will be determined based on the zone travelled followed by the race time.
Case 3	Both real and virtual robots are able complete race in their respective worlds	The robot performance is determined by the race time.
Case 4	MISSING team name or WRONG team name	The results will not be recorded.

- 2.6 At the end of CoSpace Grand Prix competition, in case of same timing between two or more teams on the first 3 places, the Chief Judge may ask the involved teams to race again.

3. CONFLICT RESOLUTION

- 3.1 During a gameplay, the referee's decisions are final.
- 3.2 Rule clarification may be made by the members of the RoboCup Singapore CoSpace Technical Committee.

It is not whether you win or lose, but how much you learn that counts!

Please contact Competition@CoSpaceRobot.org should you have any questions.