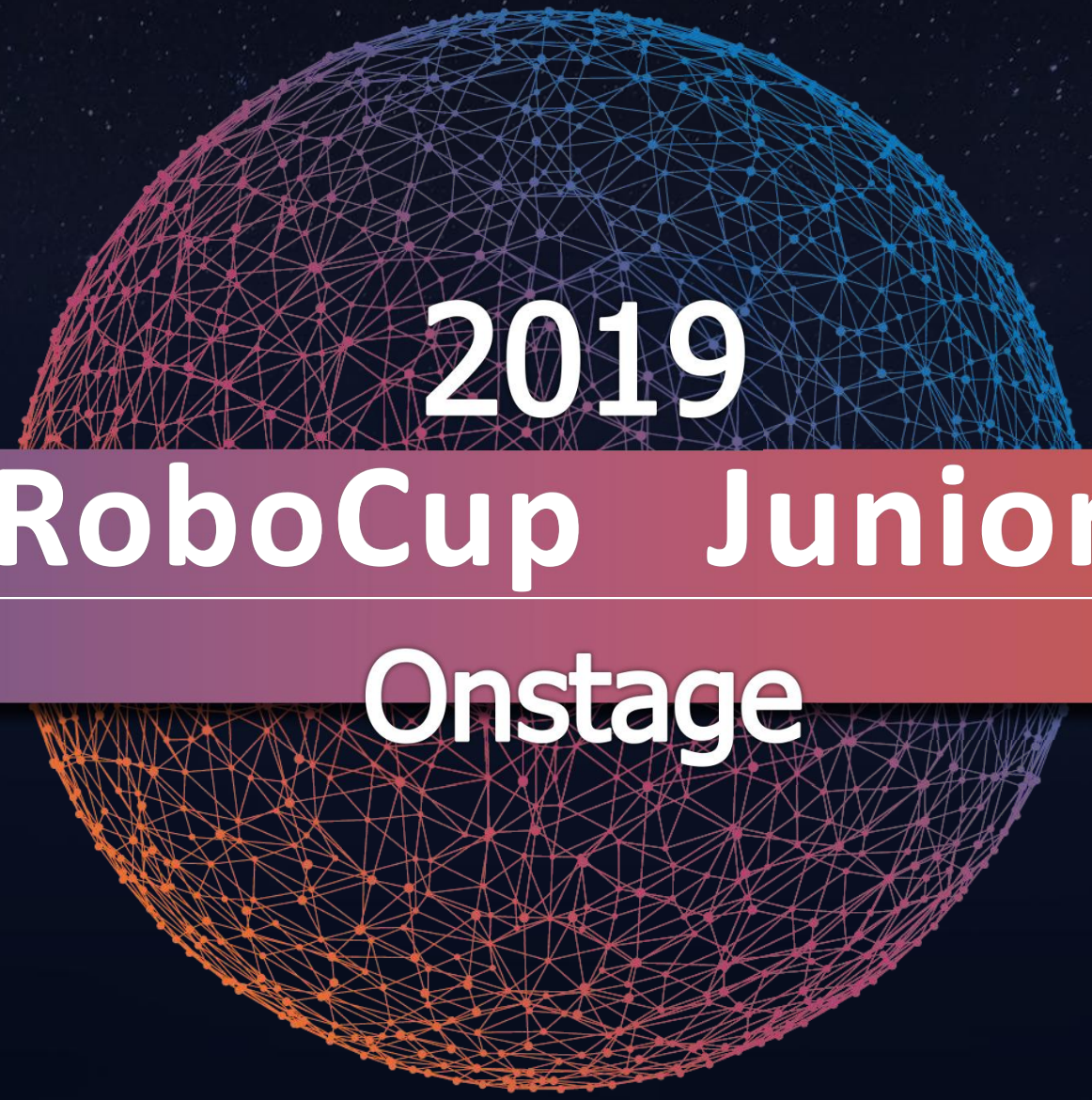
RoboCup Junior China

RoboCup



2019

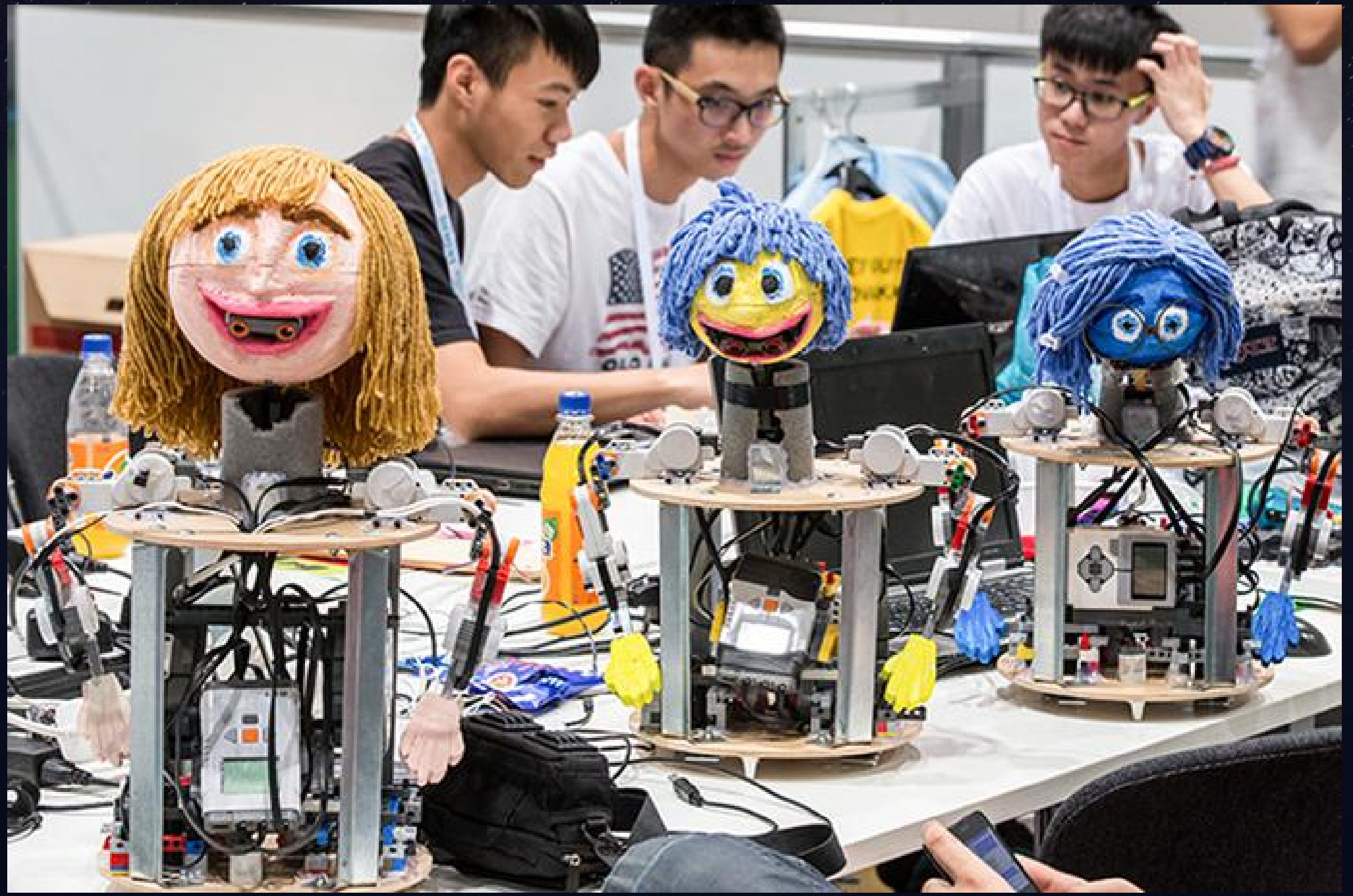
RoboCup Junior

Onstage

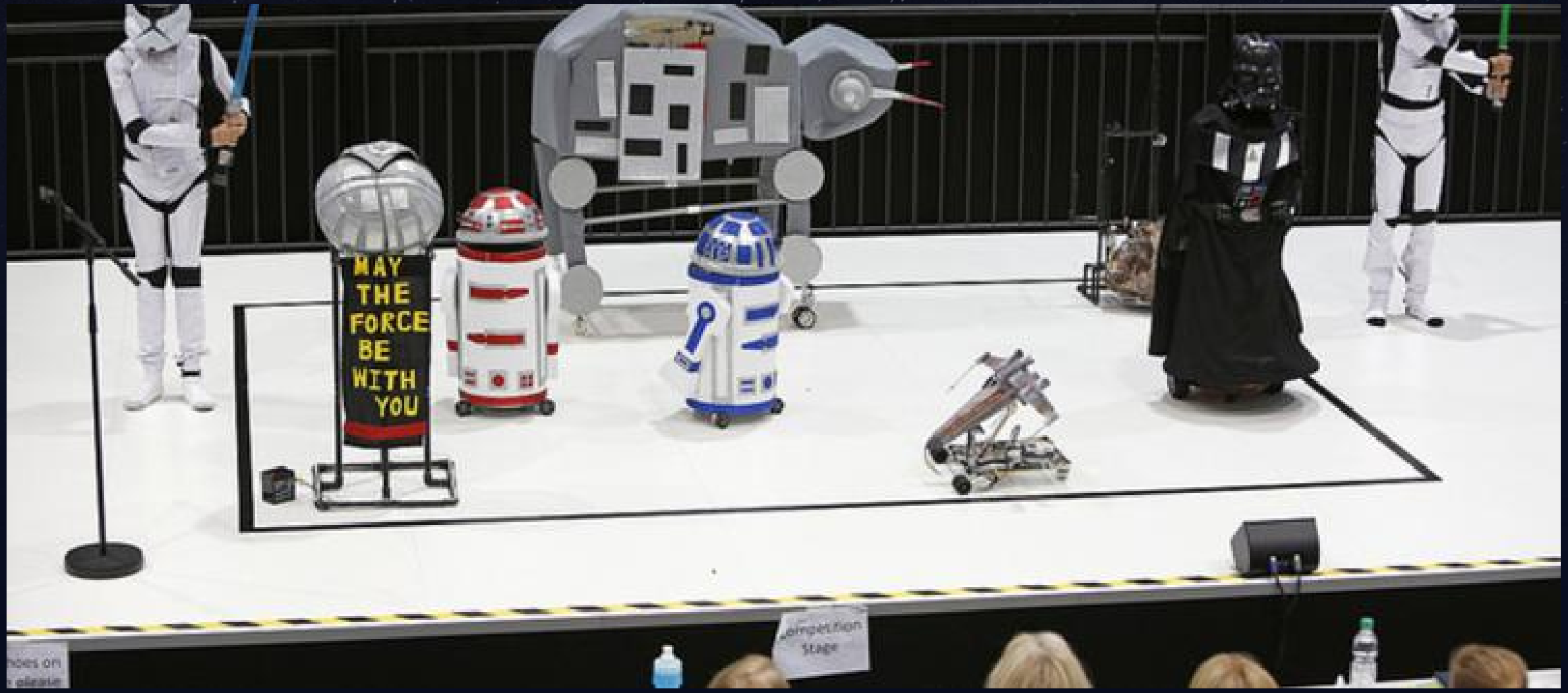
RoboCup 2017
Nagoya Japan

RoboCup 2018
MONTRÉAL · CANADA

2019
Australia
Sydney




LHEN-Dance
Peru
filmora

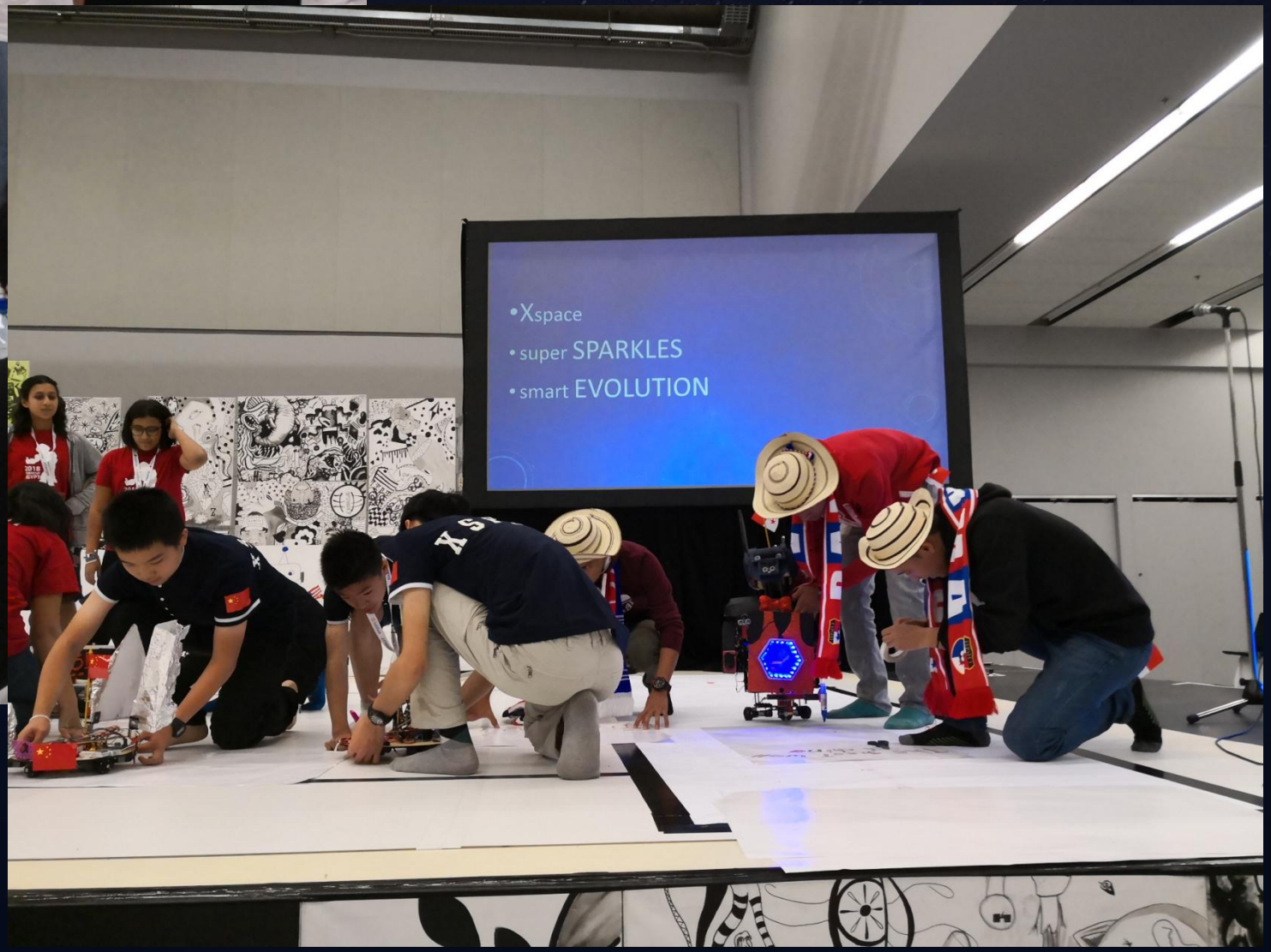

MAY
THE
FORCE
BE
WITH
YOU

2018RoboCup国际机器人大赛蒙特利尔ONSTAGE大家庭的合影

初级组25队 高级组20队 共45个队伍参赛


Sortie
d'urgence
Emergency Exit


Drawing Competition


•Xspace
• super SPARKLES
• smart EVOLUTION

2018 Onstage 规则修改

取消按年龄分组，

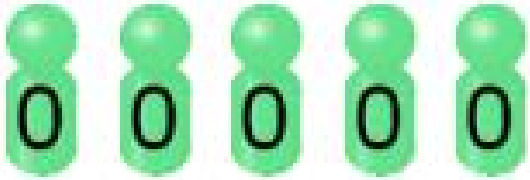
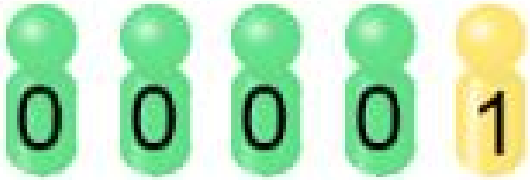
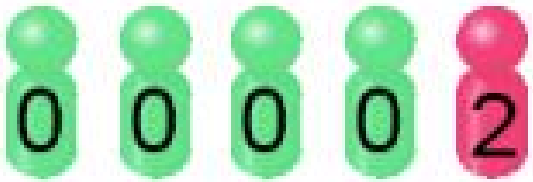
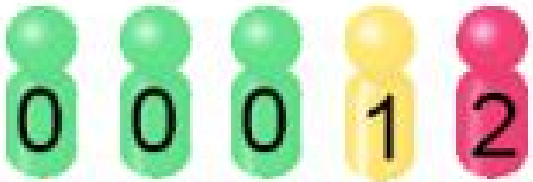
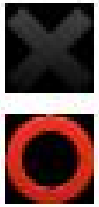
改为按照是否具有参赛经验分组。

✓最小的年龄是13岁，参与学生的年龄为13-19岁。

✓一支参赛队应至少有2名成员，足球和救援赛的成员总数不应超过4名，舞蹈不超过5名。

Onstage Preliminary
舞蹈初级组

Onstage Advanced
舞蹈高级组

Team	Team members	Eligibility
Team A		 Preliminary Advanced
Team B		 Preliminary Advanced
Team C		 Preliminary Advanced
Team D		 Preliminary Advanced
Team E		 Preliminary Advanced

舞蹈初级组

•可以允许跟着线路走或者在线路上铺地纸（垫子）

舞蹈高级组

•需要使用更先进的技术或特定技术（传感器，图像识别等）的挑战和任务。

舞蹈竞赛组成

➢5分钟的舞台技术演示。 团队分工请看看；传感器系统；自主开发的机器人功能，例如人机交互、机机交互；机器人没有服装以便展示所使用的技术和关键特征... ...

➢15分钟的技术面试。根据技术标准进行机器人的编程评判；创新的技术会得分更高；学生对所使用的机器人技术的理解，展示真实性和原创性；准备好回答机器人设计的技术方面的问题... ...

➢1-2分钟的舞台表演。创意性、创新性、娱乐性、原创性... ...

➢技术档案：在竞赛前三周提交（2-4页），解释所使用的机器人硬件，软件，通信和算法... ...

Category	Mark
Presentation of fully working robotic system. More complex robotic systems will score higher marks. For example: 0-5 for a fully working but simple robotic system (kit based), 5 to 10 for a fully working robotic system with a range of sensors/actuators, 10 to 15 for fully working robotic system built from scratch including the electronics.	/10
Robot capabilities demonstrated in the presentation (hardware, software, sensors, algorithms, mechanical engineering, electronics, and communication). For example: 0-5 for basic capabilities with simple sensor/actuator feedback loops, 5 to 10 for integrating hardware/software in more interesting ways to create the robotic capabilities, 10 to 15 innovative and creative robotic features combined to create unusual robotic capabilities.	/8
Clarity and quality of the presentation. For example: 0 to 1 for presentation which is difficult to follow and does not show robot capabilities, 2 to 3 effective presentation where most of capabilities of the robot are clearly explained, 4 to 5 Presentation clearly demonstrates all the robot capabilities are professionally presented by the team.	/5
Concept and technical innovation Marks awarded for the project idea in terms in a technically unusual, creative or ambitious concept for the robots and robotic performance.	/7
Total Score	/30

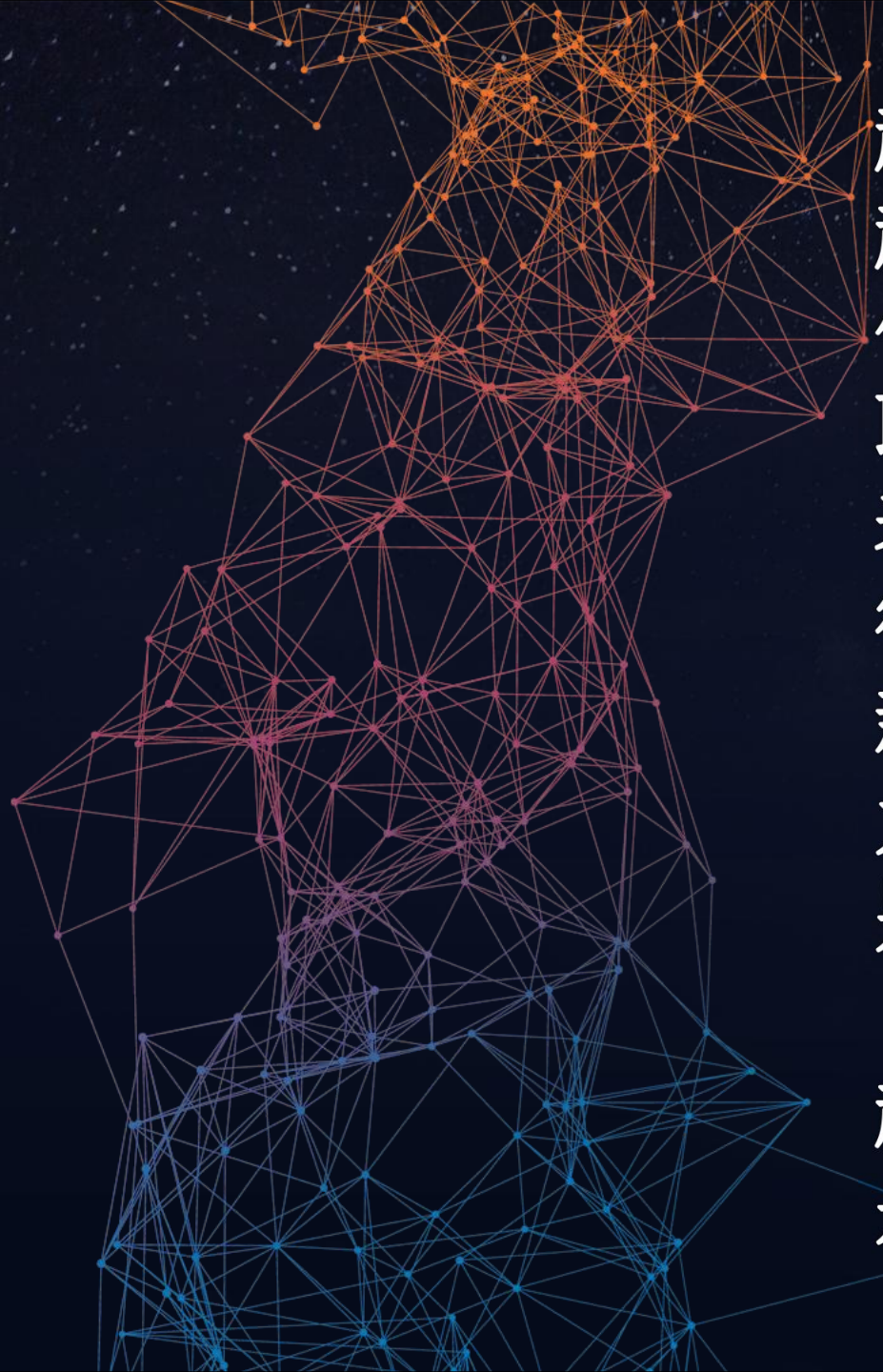
Category	Examples of how high marks may be achieved are:	Mark
Programming	• Efficient programming • Advanced programming (optimized, elegant) • Innovative programming solutions • Development of libraries (as distinct from functions) • Machine Learning • Ability to explain how the program works and interactions between the hardware and software • Ability to explain why programming decisions were made, choice of programming languages, and any difficulties with the software	/ 7
Mechanical Hardware	• Mechanical systems that are **Reliable / Complex / Innovative** • Mechanisms that have been developed for very high precision, or for mechanically 'difficult' situations • Advanced and functional arms/hands/faces • The robot has the ability to manipulate objects • The robot can move on any terrain • Automatic balance system • Appropriate actuators used • Ability to explain how the mechanical • Ability to explain why decisions were	
Electronic Hardware	• Some of the electronics have been cus than offered in the market • Innovative use and integration of sens • Useful GPS, gyroscope and acceleromet • Innovative use of technologies to aid t source power (hydrogen, solar), holog • Ability to explain how the electronics • Ability to explain why decisions were electronics	
Robotic Communication & Interaction	• Useful robotic communication • Useful vision recognition • Useful voice recognition • The robot has the ability to talk • Development of communication architectures • Sensors used to achieve robot-robot interaction, for example robots following robots • Sensors used to achieve robot-human interaction • Ability to explain how and why the communication is occurring	/ 7
Deductions (at discretion of judges – up to 15 marks each)	• Judges should satisfy themselves that this is the work of the students • Originality of robot software and hardware (no reuse from previous competitions) • Team members are able to discuss their technical involvement with the robot	
Total Score		/30

Category	Examples of how high marks may be achieved are	Mark
Quality of the Whole Performance	• There is a link, or common theme demonstrated in the whole performance. The idea of the performance is well understood. • A performance that is engaging throughout • Ambitious use of the stage area • Home-built robot costumes complement the performance and are engaging • Original and innovative performance *Only robots and up to two performers are allowed on stage* *Use of props or scenery on the stage is allowed only when used for interaction with the robot.*	/ 12
Robot's Movements	• Non-repetitive robot movements and/or a varied robot performance • Reliable robots that do not fall apart and work as expected for the duration of the performance • Risky movements by robots (e.g. Robot(s) can balance itself) • Fluid movements similar to humans • Robot(s) moves around the whole stage area • A slick and polished performance throughout the display • Robot movement(s) are choreographed tightly to the music.	/ 12
Effective Use of Technologies	• All sensors are used and add value to the performance • Technologies are used in new or different ways not seen before • Unusual technol or power system • Effective use of a recognition etc.) • A digital display	
Communications & Interactions	• Communication • Human-robot int • Robot-robot inte • Synchronization • Interaction betw • Robot(s) can avo	
Deductions	• Each unplanned human intervention: -3 • Restarts: -5 for each re-start • Allotted time: -3 for each 10 seconds over • Within area: -3 for each infraction of the boundary *Teams that infringe the rules should be warned that such infringements will not be allowed in the second performance and marks deducted appropriately at the judge's discretion.*	
Total Score		/40

无计划的人为干预：-3
重新启动：每次重新启动-5
时间控制：每10秒超过-3
出界：每次出界-3
应当警告违反规则的团队在第二次演出中不允许此类犯规，并由裁判自行决定适当扣除。

Super Team Performance

超级联队赛



超级联队赛由两个或更多参与队伍组成。超级联队赛在比赛场地进行短时间的合作，必须创建一个新的表现。鼓励超级联队创造令人兴奋和有趣的机器人表演，表达他们的友谊和合作，并展示他们从彼此学到的东西。除了协作与新音乐和新表演协作之外，还将嵌入特定挑战作为演出的一部分。例如，提升某物、识别和使用物体。

超级联队赛是国际赛事的特别计划，不是区域赛事的强制性要求。

RCJ中国赛改革设想

舞蹈
基础组

舞蹈
标准组

项目设置

舞蹈
基础组

小学组（1-6年级）
中学组（7-12年级)

技术面试（20分）
两轮表演（40分/轮）

项目设置

舞蹈
标准组

初级组（10-13岁）
高级组（13-19岁）
（国际赛名额）

日志 10%
笔试 10%
（技术面试 10%、技术展示20%、两轮表演共40%、超级联队 10%）

组织机构

组织机构

无工资、无补贴、无五险一金

有压力、有风险、有争议指责

过程改进

- 打分透明，及时公布；
- 裁判轮换，打分复审；
- 服从安排，禁止攻击；
- 论坛分享，技术共进；
- 增设一些技术奖或创意奖；
- …… ……

欢迎大家提出宝贵建议！


THANK YOU