

# The 10th Anniversary International Youth Robot Competition

## – 10th Anniversary IYRC

- Slogan (creation theme): Robots for People in Need
  - Date: August 4th (Fri) to 5th (Sat) 2023
  - Place: Daejeon Convention Center Exhibition Hall 2 \*KT Daejeon Human Resources Development Institute (Overseas Team Accommodation)
  - Host: Daejeon Metropolitan City, Woosong University, IYRA
  - Subject: IYRA
  - Operation: International Federation of Youth Robots, MRT International, Dazl Edu, Woosong IT Education Center
  - Participation scale: 800 overseas, 300 domestic, 1,100 people from 24 countries
    - Asia: Malaysia, Thailand, Laos, Myanmar, Indonesia, Vietnam, India, Mongolia, China, Singapore (10 countries)
    - Asia: Algeria, Israel, Russia, Mexico, Turkey, Colombia, Australia, Uzbekistan, Kazakhstan, the United States, Bulgaria, Spain and Portugal (13 countries)
- \*Counting countries as of April

### 1. History of IYRC International Competition

competition	Period	Venue	countries	participants	Remark
#1	'14. 8	Daejeon DCC	11countries	500	co-hosting with Daejeon City
#2	'15. 8	Daejeon 무역전시관	한국 등 10countries	400	co-hosting with Daejeon City
#3	'16. 8	Daejeon DCC	12countries	600	co-hosting with Daejeon City
#4	'17. 8	Malaysia, Kuala Lumpur	20countries	1,500	Genting Highland Resort
#5	'18. 11	Bangkok, Thailand	17countries	1,500	Chulalongkorn University
#6	'19. 8	Daejeon DCC	20countries	2,000	co-hosting with Daejeon City
#7	'20. 10	Daejeon DCC (On-line)	17countries	1,300	co-hosting with Daejeon City
#8	'21. 8	Daejeon DCC (On-line)	18countries	1,300	co-hosting with Daejeon City
#9	'22. 8	Daejeon DCC (On-line, Mertaversa)	18countries	1,500	co-hosting with Daejeon City

## 2. Introduction to events

	종목	참가연령(나이)	종목설명	참가형태
1	Bowling 로봇 볼링	kindergarten(5-8)	a game in which a player rolls a bowling ball in a card reader program to knock down a pin	개인전
2	Road Challenge 로드 챌린지	kindergarten(5-8)	a race in which a robot quickly reaches its destination through obstacles, bridges, hills, etc	개인전
3	Item Recycle 아이템 리사이클링	Junior(8-13)	Competition to control robots to classify recyclables (paper, plastic, aluminum) in the shortest time	2인 1팀
4	Animal Kingdom 동물의 왕국	Junior(8-13)	A game in which a robot is programmed to move along a line and solve a mission	개인전
5	Soccer 로봇 축구	Junior(8-13)	a three-to-three robot soccer game	3 vs. 3 팀전
6	Push-Push 푸시푸시	Junior(7-12)	a game in which the opponent's robot is pushed out of the ring (Remote Control Method)	1 vs 1 개인전
7		Senior(13-18)	a game in which the opponent's robot is pushed out of the ring (Programming method)	
8	Volleyball 로봇 배구	Junior(7-12)	It is a two-man team that sends a lot of balls to the opponent's side (remote control method)	2 vs. 2 팀전
9		Senior(13-18)	It is a two-man team that sends a lot of balls from one's side to the other's side (programming method)	
10	Save the Forest 세이프더포레스트	Senior(13-18)	Autonomous driving moves along the black line to solve the mission	개인전
11	Creative Design	Junior(7-12)	<b>Topic: Robots to help people in need</b>	팀전 (3-5인 학생, 교사 1명)
12		Senior(13-17)		
13	Humanoid Mission	Unlimited	Humanoid Robot Rowing Competition	개인전
14	Cocomon Go	Junior(7-12)	A game in which the final arrival score and design score are added together to determine the score of the needle	2인 1팀
15		Senior(13-18)		

## ○ 주요 종목 경기장

<p style="text-align: center;"><b>로봇 볼링</b></p> <table border="1"> <tr><td><b>Age</b></td><td>5-8</td></tr> <tr><td><b>Category</b></td><td>Individual Mission</td></tr> <tr><td><b>Robot Kits allowed</b></td><td>GOMA &amp; BRAIN</td></tr> <tr><td><b>Mission</b></td><td>Throw ball to knock down pins from start box</td></tr> <tr><td><b>Robot Building</b></td><td>Pre-build &amp; On the spot Card programming</td></tr> </table> 	<b>Age</b>	5-8	<b>Category</b>	Individual Mission	<b>Robot Kits allowed</b>	GOMA & BRAIN	<b>Mission</b>	Throw ball to knock down pins from start box	<b>Robot Building</b>	Pre-build & On the spot Card programming	<p style="text-align: center;"><b>로드 챌린지</b></p> <table border="1"> <tr><td><b>Age</b></td><td>5-8</td></tr> <tr><td><b>Category</b></td><td>Individual Timed Mission</td></tr> <tr><td><b>Robot Kits</b></td><td>GOMA &amp; BRAIN</td></tr> <tr><td><b>Mission</b></td><td>Robot carry a table tennis ball from start area and enter into shooting area then throw the ball into basket autonomously.</td></tr> <tr><td><b>Robot Building</b></td><td>Pre-built and pre-programmed</td></tr> </table> 	<b>Age</b>	5-8	<b>Category</b>	Individual Timed Mission	<b>Robot Kits</b>	GOMA & BRAIN	<b>Mission</b>	Robot carry a table tennis ball from start area and enter into shooting area then throw the ball into basket autonomously.	<b>Robot Building</b>	Pre-built and pre-programmed
<b>Age</b>	5-8																				
<b>Category</b>	Individual Mission																				
<b>Robot Kits allowed</b>	GOMA & BRAIN																				
<b>Mission</b>	Throw ball to knock down pins from start box																				
<b>Robot Building</b>	Pre-build & On the spot Card programming																				
<b>Age</b>	5-8																				
<b>Category</b>	Individual Timed Mission																				
<b>Robot Kits</b>	GOMA & BRAIN																				
<b>Mission</b>	Robot carry a table tennis ball from start area and enter into shooting area then throw the ball into basket autonomously.																				
<b>Robot Building</b>	Pre-built and pre-programmed																				
<p style="text-align: center;"><b>아이템 리사이클링</b></p> <table border="1"> <tr><td><b>Age</b></td><td>8-13</td></tr> <tr><td><b>Category</b></td><td>Team of 2 Timed Mission</td></tr> <tr><td><b>Robot Kits allowed</b></td><td>MRT Series &amp; HUNA educational robot kit</td></tr> <tr><td><b>Mission</b></td><td>Remote control robot to sort and place recyclables into different categories: Aluminium, Paper &amp; Plastic</td></tr> <tr><td><b>Robot Building</b></td><td>Pre-build remote control robot</td></tr> </table> 	<b>Age</b>	8-13	<b>Category</b>	Team of 2 Timed Mission	<b>Robot Kits allowed</b>	MRT Series & HUNA educational robot kit	<b>Mission</b>	Remote control robot to sort and place recyclables into different categories: Aluminium, Paper & Plastic	<b>Robot Building</b>	Pre-build remote control robot	<p style="text-align: center;"><b>로봇 배구</b></p> <table border="1"> <tr><td><b>Age</b></td><td>8-13</td></tr> <tr><td><b>Category</b></td><td>2v2 Tournament</td></tr> <tr><td><b>Robot Kits allowed</b></td><td>MRT Series, &amp; HUNA educational robot kit</td></tr> <tr><td><b>Mission</b></td><td>Remote control robot to transfer table tennis balls into opponent's field</td></tr> <tr><td><b>Robot Building</b></td><td>Pre-build remote control robot</td></tr> </table> 	<b>Age</b>	8-13	<b>Category</b>	2v2 Tournament	<b>Robot Kits allowed</b>	MRT Series, & HUNA educational robot kit	<b>Mission</b>	Remote control robot to transfer table tennis balls into opponent's field	<b>Robot Building</b>	Pre-build remote control robot
<b>Age</b>	8-13																				
<b>Category</b>	Team of 2 Timed Mission																				
<b>Robot Kits allowed</b>	MRT Series & HUNA educational robot kit																				
<b>Mission</b>	Remote control robot to sort and place recyclables into different categories: Aluminium, Paper & Plastic																				
<b>Robot Building</b>	Pre-build remote control robot																				
<b>Age</b>	8-13																				
<b>Category</b>	2v2 Tournament																				
<b>Robot Kits allowed</b>	MRT Series, & HUNA educational robot kit																				
<b>Mission</b>	Remote control robot to transfer table tennis balls into opponent's field																				
<b>Robot Building</b>	Pre-build remote control robot																				
<p style="text-align: center;"><b>3 vs. 3 로봇 축구</b></p> <table border="1"> <tr><td><b>Age</b></td><td>8-13</td></tr> <tr><td><b>Category</b></td><td>3v3 Tournament</td></tr> <tr><td><b>Robot Kits allowed</b></td><td>MRT Series &amp; HUNA educational robot kit</td></tr> <tr><td><b>Mission</b></td><td>Soccer match using remote control</td></tr> <tr><td><b>Robot Building</b></td><td>Pre-build remote control robot</td></tr> </table> 	<b>Age</b>	8-13	<b>Category</b>	3v3 Tournament	<b>Robot Kits allowed</b>	MRT Series & HUNA educational robot kit	<b>Mission</b>	Soccer match using remote control	<b>Robot Building</b>	Pre-build remote control robot	<p style="text-align: center;"><b>푸시 푸시</b></p> <table border="1"> <tr><td><b>Age</b></td><td>8-13</td></tr> <tr><td><b>Category</b></td><td>Individual Tournament</td></tr> <tr><td><b>Robot Kits allowed</b></td><td>MRT Series &amp; HUNA educational robot kit (Exclude Kicky and Brain kit)</td></tr> <tr><td><b>Mission</b></td><td>Remote control robot to pass through the runway and push opponent outside of the black ring</td></tr> <tr><td><b>Robot Building</b></td><td>Pre-build remote control</td></tr> </table> 	<b>Age</b>	8-13	<b>Category</b>	Individual Tournament	<b>Robot Kits allowed</b>	MRT Series & HUNA educational robot kit (Exclude Kicky and Brain kit)	<b>Mission</b>	Remote control robot to pass through the runway and push opponent outside of the black ring	<b>Robot Building</b>	Pre-build remote control
<b>Age</b>	8-13																				
<b>Category</b>	3v3 Tournament																				
<b>Robot Kits allowed</b>	MRT Series & HUNA educational robot kit																				
<b>Mission</b>	Soccer match using remote control																				
<b>Robot Building</b>	Pre-build remote control robot																				
<b>Age</b>	8-13																				
<b>Category</b>	Individual Tournament																				
<b>Robot Kits allowed</b>	MRT Series & HUNA educational robot kit (Exclude Kicky and Brain kit)																				
<b>Mission</b>	Remote control robot to pass through the runway and push opponent outside of the black ring																				
<b>Robot Building</b>	Pre-build remote control																				
<p style="text-align: center;"><b>세이브 더 포레스트</b></p> <table border="1"> <tr><td><b>Age</b></td><td>13-18</td></tr> <tr><td><b>Category</b></td><td>Individual Timed Mission</td></tr> <tr><td><b>Robot Kits allowed</b></td><td>MRT Series</td></tr> <tr><td><b>Mission</b></td><td>Robot runs autonomously to trace the black line to complete some missions.</td></tr> <tr><td><b>Robot Building</b></td><td>Pre-build &amp; on-site programming</td></tr> </table> 	<b>Age</b>	13-18	<b>Category</b>	Individual Timed Mission	<b>Robot Kits allowed</b>	MRT Series	<b>Mission</b>	Robot runs autonomously to trace the black line to complete some missions.	<b>Robot Building</b>	Pre-build & on-site programming	<p style="text-align: center;"><b>휴머노이드 미션</b></p> <table border="1"> <tr><td><b>Age</b></td><td>All</td></tr> <tr><td><b>Category</b></td><td>Individual Time Mission</td></tr> <tr><td><b>Robot allowed</b></td><td>MRT LINE Core Humanoid</td></tr> <tr><td><b>Mission</b></td><td>Control the Humanoid to complete missions</td></tr> <tr><td><b>Robot Building</b></td><td>Pre-programmed LINE Core Humanoid</td></tr> </table> 	<b>Age</b>	All	<b>Category</b>	Individual Time Mission	<b>Robot allowed</b>	MRT LINE Core Humanoid	<b>Mission</b>	Control the Humanoid to complete missions	<b>Robot Building</b>	Pre-programmed LINE Core Humanoid
<b>Age</b>	13-18																				
<b>Category</b>	Individual Timed Mission																				
<b>Robot Kits allowed</b>	MRT Series																				
<b>Mission</b>	Robot runs autonomously to trace the black line to complete some missions.																				
<b>Robot Building</b>	Pre-build & on-site programming																				
<b>Age</b>	All																				
<b>Category</b>	Individual Time Mission																				
<b>Robot allowed</b>	MRT LINE Core Humanoid																				
<b>Mission</b>	Control the Humanoid to complete missions																				
<b>Robot Building</b>	Pre-programmed LINE Core Humanoid																				

