2023 World GreenMech Contest Manual

世界機關王
GREEN MECH
World Forum For GreenMech Promotion

機關王 GREEN MECH

R4M ROBOT FOR MISSION

GREEN MECH JR. 積木創客盃

Organizers

國立中興大學
National Chung Hsing University

世界機關王協會
World Forum For GreenMech Promotion

Operator

智高實業股份有限公司
GENIUS TOY TAIWAN CO., LTD.

World GreenMech Contest 2023

Contents

1. Overview 2

2. Introduction 3

3. Contest Schedule 4

   3-1. GreenMech (Basic) 4

   3-2. GreenMech (Advanced) 5

   3-3. Robot for Mission (Basic/Advanced) 6

   3-4. GreenMech Junior Science 7

   3-5. GreenMech Junior Programmer 8

4. Contest Floor Plan 9

   4-1. Campus Map 9

   4-2. GreenMech 12

   4-3. Robot for Mission 13

   4-4. GreenMech Junior 14

5. Points to Remember 15

6. Awards 18

7. Appendix 22

   Restaurant Information 22

   Taxi Information 22

   Sightseeing Recommandation 22

World GreenMech Contest 2023

Overview

1. Overview

Contest Purpose

The 2023 World GreenMech Contest is a fun engineering competition run by the World Forum For GreenMech Promotion. Using scientific principles, this competition combines the following five aspects of learning and growing: Science, Technology, Engineering, Art, and Mathematics, also referred to as STEAM. There are three contests: (i) GreenMech (ii) R4M and (iii) GreenMech Jr.

The two contests GreenMech & R4M inspire contestants to engage in scientific study, creative problem solving, and help them better understand use of scarce resources in project planning. Contestants can enjoy pitting their different skills and creativity against each other in a fun and friendly environment. There is ample opportunity for all contestants to show the benefit of their contribution.

This year the GreenMech Jr. contest has two components – “Jr. Science” and “Jr. Programmer”. Jr. Science is an entry level opportunity for learners to get involved in simple engineering projects. It’s specially designed for children age 5-9. Jr. Programmer uses a variety of code oriented challenges to develop programming logic and problem-solving skills. Contestants can enjoy all the fun of hands-on design, teamwork and scientific literacy. The structure of the course, combined with a fun learning environment, means that children absorb the knowledge, skills and experience, taking it into their adult lives.

S = Science

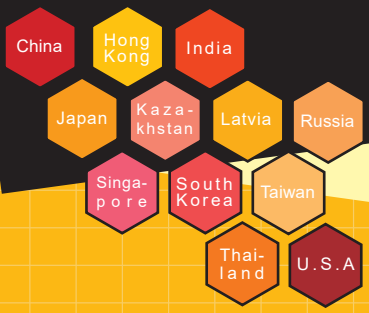
T = Technology

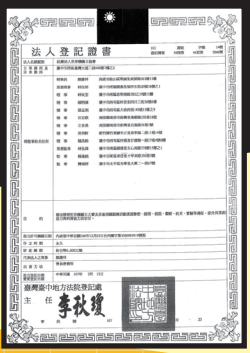
E = Engineering

A = Art

M = Mathematics

In order to meet the needs of multinational competition promotion, the eight-nation alliance was signed in 2012. In 2014 this grew to become 12 regions.





2. Introduction

The GreenMech contest was established in 2006, this year we are celebrating the 16th annual contest !

GreenMech (GM, since 2006)

- Inspiring children's enthusiasm for learning.
- Giving children the opportunity for hands-on engineering experiences.
- Turning textbook knowledge into real, design solutions.
- Work in tight-knit teams (3-4), designing and assembling within challenging time limits.

Robot for Mission (R4M, since 2015)

- Inspiring creativity and curiosity about scientific techniques.
- Extending experiences from WGM to include remote control and programming functions.
- Work in tight-knit teams (3-4), designing and assembling within challenging time limits.

GreenMech Junior (GMJr, since 2018)

- Opportunities for our youngest engineers & designers to get involved. (Designed for kindergarten and elementary school grades 1 to 4).
- Simple task design allows students to enjoy hands-on fun while learning valuable teamwork skills.

World GreenMech Contest 2023

Contest Schedule

3-1. GreenMech (Basic) Schedule

Time	Item	Remarks
07:40 ~ 08:20	Registration	1. Time to enter the venue and find your own team table. Please put all the contest material under the table in order. Contestant can start to assemble the Jumbo Base Grid (60*180 cm) on table. 2. Only contestants may be in the competition area after 8:00 a.m.Team leaders and parents/guardians are not permitted after this time.
08:00 ~ 08:50	Materials Check & Registration Check	1. The team leaders shall not enter the competition venue after 8:00 a.m. 2. Judges will carry out a building materials inspection. Except for the chain, no blocks may be assembled in advance. 3. After a brief inspection, teams will be given a “qualified” label,whereupon contestants should sit at the table and may not touch the materials. 4. Personal items can be brought into the venue but must be placed on the table in conjunction with the inspection records. 5. Contestants need to present their Certificate of Student Enrollment at this time, see the Regulations more information.
08:50 ~ 09:10	Opening Ceremony & Clarification of Rules	
09:10 ~ 10:40	Production & Testing Time	1. Please observe all competition rules. 2. When leaving, do not run, be careful not to touch another group’s work. 3. There will be 90 minutes between commencement and lunch.
10:40 ~ 12:40	Appraisals	Please refer to the Regulations
12:40 ~ 13:00	Award Ceremony	Organizers make every effort to finish on time, but patients may be required depending on announcements and other possible delays.

3-2. GreenMech (Advanced) Schedule

Time	Item	Remarks
07:40 ~ 08:20	Registration	1. Time to enter the venue and find your own team table. Please put all the contest material under the table in order. Contestant can start to assemble the Jumbo Base Grid (60*180 cm) on table. 2. Only contestants may be in the competition area after 8:00 a.m. Team leaders and parents/guardians are not permitted after this time.
08:00 ~ 08:50	Materials Check & Registration Check	1. The team leaders shall not enter the competition venue after 8:00 a.m. 2. Judges will carry out a building materials inspection. Except for the chain, no blocks may be assembled in advance. 3. After a brief inspection, teams will be given a “qualified” label, whereupon contestants should sit at the table and may not touch the materials. 4. Personal items can be brought into the venue but must be placed on the table in conjunction with the inspection records. 5. Contestants need to present their Certificate of Student Enrollment at this time, see the Regulations more information.
08:50 ~ 09:10	Opening Ceremony & Clarification of Rules	Participants attend the opening ceremony.
09:10 ~ 11:50	Production & Testing Time	1. Please observe all competition rules. 2. When leaving, do not run, be careful not to touch another group’s work. 3. There will be 160 minutes between commencement and lunch. 4. By 11:00 a.m the Scientific Principles reference table will be collected by the Organizer.
11:40 ~ 12:30	Lunch	Remember to assist in sorting the trash.
12:30 ~ 12:50	Announcements	1. Contestants should wait for the Organizer’s announcements and then be prepared to continue. 2. If Contestants are not present at this time, they may not continue with the competition.
12:50 ~ 13:00	Fine-tuning	Wait for the Organizers instruction to begin.
13:00 ~ 15:30	Appraisals	Please refer to the Regulations.
15:30 ~ 16:00	Grading Time	Parents, teachers and peers may enter and discuss the projects.
16:50	Award Ceremony	Organizers make every effort to finish on time, but patients may be required depending on announcements and other possible delays.

3-3. Robot for Mission (Basic/Advanced) Schedule

Time	Item	Remarks
07:40 ~ 08:20	Registration	1. After registration, contestants should enter the venue and not leave until the event has concluded. 2. After 8:00 a.m. only contestants may be in the competition area. Team leaders and parents/guardians are not permitted afterthis time.
08:00 ~ 08:50	Materials Inspection	1. Team leaders shall stay in their assigned areas after 8:00 a.m. and shall not enter the competition venue. 2. Judges will carry out a building materials inspection. Blocks may not be assembled in advance. Chains are the only exception to this rule. 3. After passing the materials examination, a label will be applied. Students should then sit at the table and wait without touching the materials. 4. Personal items like bags can be brought into the venue but must be placed on the table in keeping with the inspection record. 5. Contestants need to submit their Certificate of Student Enrollment, see the Regulations.
08:50 ~ 09:00	Clarification of Rules	1. Clarification of the rules and precautions of the competition
09:00 ~ 09:10	Opening Ceremony	
09:15 ~ 11:15	Assembly & Practice Time	
09:40 ~ 11:30	Work Submission Period	1. Check to confirm the robot does not contain metal parts. 2. Participating robots (including any spares and the automation platform) need to be verified by judges and will be retained until the contest time. 3. 5-Points may be deducted for messy or untidy work areas. 4. For robot size regulations please obey the regulations of R4M Basic and R4M Advanced. 5. After submitting a project, contestants need to clear away all items from the competition area including notebook, blocks, and any un-used electronic control equipment.
11:30 ~12:30	Lunch	After lunch contestants are expected to assist with sorting trash and keeping the competition area clean.
12:30 ~ 12:50	Announcements	When entering the venue, contestants may only carry a notebook, tablet or mobile phone, other items are not permitted.
13:00 ~ 15:30	Competition Time	
15:30	Awards Ceremony	Organizers make every effort to finish on time, but some patience may be required depending on announcements and other possible delays.

3-4. GreenMech Junior (Science) Schedule

Time	Item	Remarks
08:00 ~ 08:50	Registration & Materials Inspection	1. Contestants should refer to the team location map on the official website before the contest begins, so they can go directly to their team table and report on the day of the contest. 2. Contestants should check the provided materials against the list they are given. If there is any part missing, the staff must be informed before the contest begins. Once the production time begins, materials cannot be replenished or replaced. 3. Contestants need to present their Certificate of Student Enrollment at this time.
08:50 ~ 09:10	Opening Ceremony & Clarification of Rules	1.Rules remind er. 2.Lot drawing for scoriog area.
09:10 ~ 09:35	Competition One: Assembly & Practice Time	1. Contestants can only use materials provided by the Organizer on site, please see the Regulation for more information. 2. Models produced for the competition are built and tested at the same time.
09:35 ~ 10:15	Competition One: Swimming Turtle **Competition Time**	1. During the competition, the work and heavy objects should be placed on the box, and the rest of the materials should be stored in the box, and no other parts may be used for modification or production. 2. Models will be weighed before the competition begins.
10:15 ~ 10:35	Competition Two: Assembly & Practice Time	Contestants can only use materials provided by the Organizer on site, please see the Regulation for more information.
10:35 ~ 11:15	Competition Two: Spawning Seahorse **Competition Time**	During the competition, the work and the peg remover should be placed on the box, the rest of the materials should be stored in the box, and no other parts may be used for modification or production.
11:15 ~ 11:50	Calculation and Confirmation of Scores	
11:50	Awards Ceremony	Following the instructions of the chief referee, all teams move to the awards venue.

3-5. GreenMech Junior (Programmer) Schedule

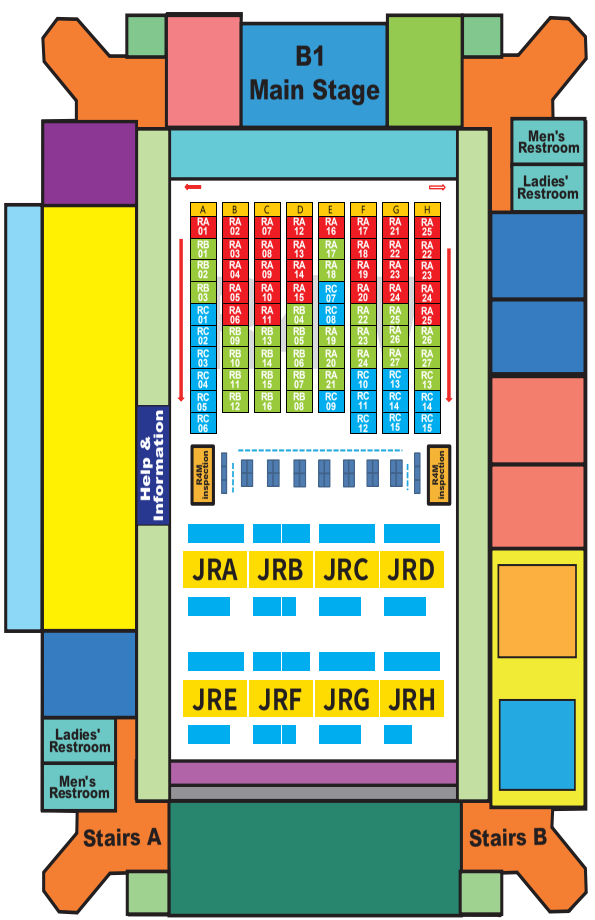
Time	Item	Remarks
13:30 ~ 13:50	Registration & Materials Inspection	Teams may bring up to 3 robot control boxes, but all device memories must be erased during inspection.
13:50 ~ 14:00	Clarification of Rules	
14:00 ~ 14:20	Practice Time	15 minutes before the official competition, teams draw lots to determine their goals. They will then have 15 minutes to practice on their own in the team preparation area. (Teams have 7 minutes to complete their contest)
14:20 ~ 15:30	Official Competition Time (Lot drawing)	
15:30 ~ 16:20	Grading Time	
16:20	Awards Ceremony	Following the instructions of the chief referee, all teams move to the awards venue.

World GreenMech Contest 2023

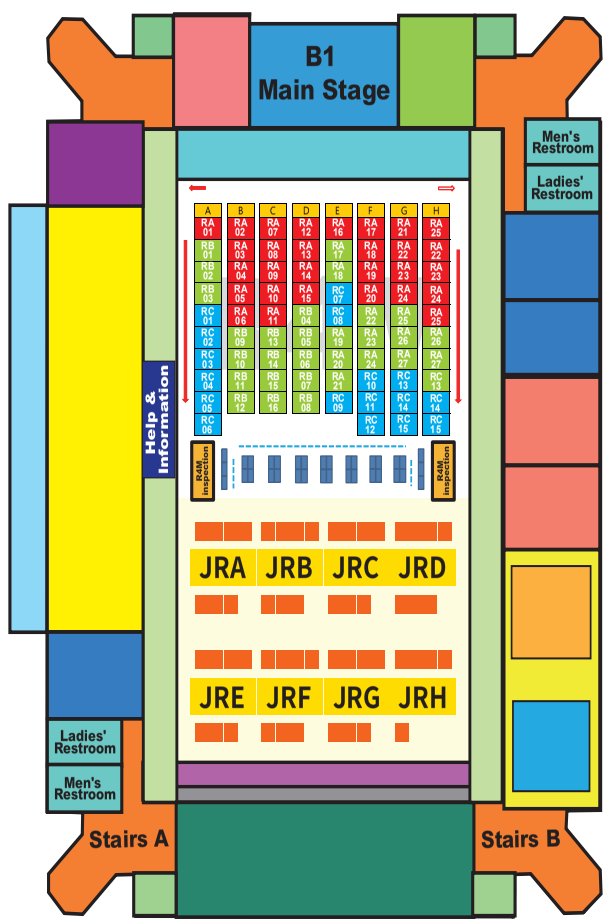
Contest Floor Plan

4-1. Campus Map

Traffic Flows to the Contest Venue



R4M & GMJr. Programmer Floor Plan - B1 in the afternoon

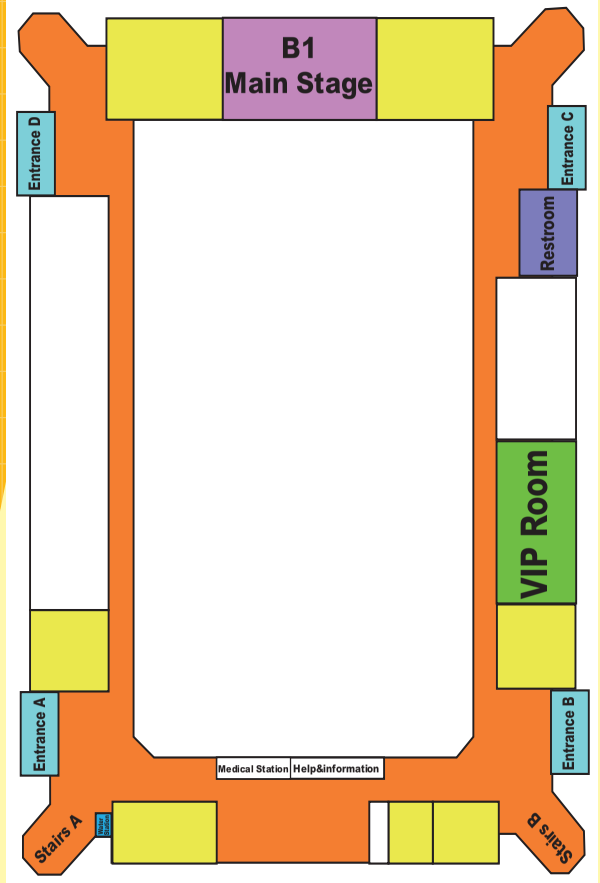


R4M & GMJr. Science Floor Plan - B1 in the morning

World GreenMech Contest 2023

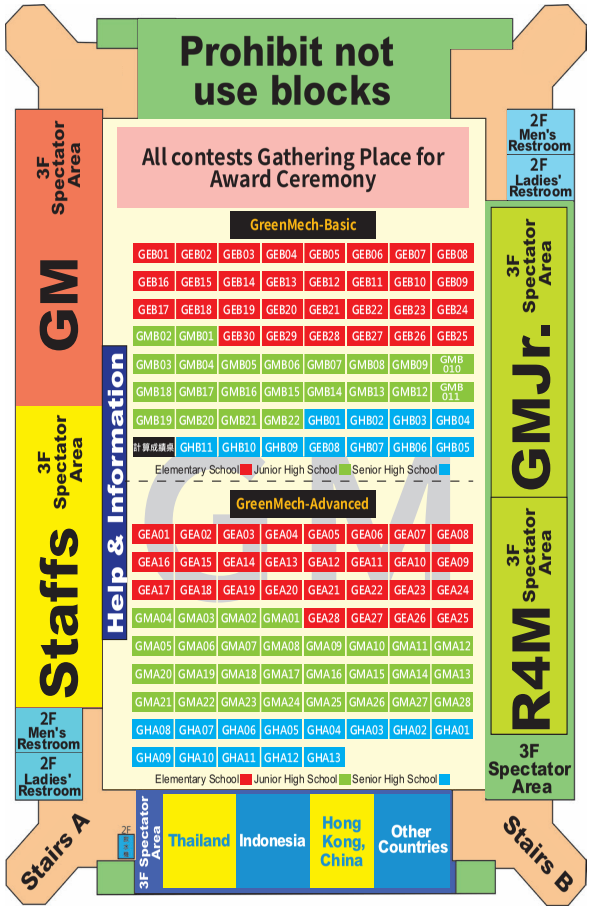
Contest Floor Plan

World GreenMech Contest 2023 Contest Floor Plan



• GM,R4M,GMJr: Please go to the B1,2F contest site via stairs A and B.

Floor Plan – 1F



GM (GreenMech) Floor Plan – 2F

4-2. GreenMech

Team Location Map

Main Stage 2F

GreenMech-Basic

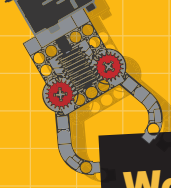
Elementary School | Junior High School | Senior High School

GEB01 青梅竹馬	GEB02 藍色妖姬	GEB03 潭陽smile隊	GEB04 黑白戰隊	GEB05 地球我救你星隊	GEB06 大安向前衝	GEB07 動如脫兔隊	GEB08 凱旋旅行家
GEB16 菜鳥聯合	GEB15 We Are Winners.	GEB14 光速炫風	GEB13 中信機關隊	GEB12 中港綠巨人2	GEB11 小海豚創客隊	GEB10 寶可夢	GEB09 小小兵
GEB17 四通八達	GEB18 光復前兔無量	GEB19 南投至誠國小	GEB20 Great Master	GEB21 傳說對決隊	GEB22 勇創佳積	GEB23 高原1A3B	GEB24 White Bear
GMB02 好朋友湊一隊	GMB01 北新我第一	GEB30	GEB29	GEB28 無敵戰神	GEB27 月光閃閃	GEB26 Carlo Scientis 2	GEB25 Carlo Scientis 1
GMB03 對對對對隊	GMB04 你說對不隊	GMB05 北斗國中A隊	GMB06 北中一隊	GMB07 瘋狂海蟹	GMB08 後空翻的貓	GMB09 STS	GMB010 Star of the sea
GMB18 三光國中	GMB17 A-1000	GMB16 創意apple隊	GMB15 三秒抓毛	GMB14 勝利鍬形蟲	GMB13 靈機一動	GMB12 Enjoy	GMB011 宇安王號
GMB19 匠心	GMB20 太陽能合唱團	GMB21	GMB22	GHB01 好朋友組一隊	GHB02 機關無雙	GHB03 北極星之夜	GHB04 ALMAKA FAITHFUL
計算成績桌	GHB11 宜中小公主 YLSH Princesses	GHB10 宜中Tony的鳳梨冰茶	GHB09 阿姆斯特朗回旋加速噴氣式阿姆斯特朗砲	GEB08 二林高中-好厲害	GHB07 築夢追光	GHB06 畢達哥拉斯隊	GHB05 科學小飛俠

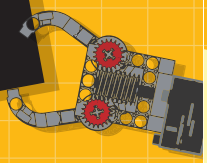
GreenMech-Advanced

Elementary School | Junior High School | Senior High School

GEA01 素肚與積綦	GEA02 小花機關王	GEA03 東光特攻隊	GEA04 無名隊	GEA05 中港綠巨人	GEA06 永立安身隊	GEA07 賣番薯的阿伯	GEA08 任詣王
GEA16 陸行鳥	GEA15 超級瑪利歐	GEA14 新民機動組	GEA13 鯉魚王	GEA12 新興的希望	GEA11 永續正義就是隊	GEA10 三和GO GO GO	GEA09 東升的太陽
GEA17 SDGs SHOW	GEA18 菲爾普斯	GEA19 灌籃三劍客	GEA20 特級廚師小當家	GEA21 天下第一我最行	GEA22 三代同堂	GEA23 機冠王	GEA24 信小拯救隊
GMA04 潘朵拉星球	GMA03 理想國度	GMA02 東光玩美客	GMA01 阿煩達	GEA28 Candy Crash	GEA27 The Farm of BeeCowVen	GEA26 BRN. SAVING THE EARTH MISSION	GEA25 PSP AWESOME ARCHITECHS
GMA05 俺關節太酥	GMA06 林中樹子	GMA07 佑一個隊	GMA08 破壞王	GMA09 黑胡椒雞胸肉	GMA10 年輕人	GMA11 繼承	GMA12 Temrak Clean Energy
GMA20 Ecobot	GMA19 不贏怎麼隊	GMA18 關關難過關關過	GMA17 我鵝醒我驕傲	GMA16 當天才變蠢材	GMA15 你愛我對不隊	GMA14 神奇海螺	GMA13 高捷好舒服
GMA21 湯姆小火車	GMA22 綠色庇護	GMA23 成就福安洋溢	GMA24 超級馬力歐	GMA25 Planet Protector	GMA26 TCCS STEM TEAM	GMA27 福中科研會	GMA28 動物園
GHA08 邁向巔蜂	GHA07 小熊闖天關	GHA06 第一名	GHA05 晉太元中曉明人	GHA04 工業化社會	GHA03 豬穆朗瑪蜂	GHA02 LOOKPUDUM 2	GHA01 SK SPACE WAY
GHA09 颺蜂鳴旅	GHA10 美麗知性隊	GHA11 substainable relief team	GHA12 EScape	GHA13 IDK			



World GreenMech Contest 2023 Robot for Mission



4-3. Robot for Mission

Team Location Map **Main Stage** **B1**

R4M-Basic

Venue A		
Referee	洪睿璟	
Second Referee	印尼教授	
No.	Team ID	Name
RA01	RO06201001	GENESIS 3.0
RB01	RO06202003	STS CFD
RB02	RO06202002	AUTOBOT P2C
RB03	RO06202001	EDITH
RC01	RO06203004	Interstellars
RC02	RO06203003	VICTORIOUS
RC03	RO06203002	Ern n Frens
RC04	RO06203001	Rupert Jones
RC05	RB88603001	R4M光華A
RC06	RB88601019	宜中-對不隊

Venue B		
Referee	施慧如	
Second Referee	許靜怡	
No.	Team ID	Name
RA02	RB88601018	Golden Team
RA03	RB88601017	燦爛時光
RA04	RB88601016	文雅1269A
RA05	RB88601015	中港綠巨人
RA06	RB88601013	德化戰隊
RB09	RB88602015	TCJL
RB10	RB88602014	牧瓜股份有限公司
RB11	RB88602009	蘭中科技戰士
RB12	RB88602006	雞腿便當

Venue C		
Referee	李志輝	
Second Referee	盧燕貞	
No.	Team ID	Name
RA07	RB88601010	草國小創客B隊
RA08	RB88601009	名字太難取
RA09	RB88601008	宇宙戰士隊
RA10	RB88601007	從小玩車B隊
RA11	RB88601006	獨眼獨角獸
RB13	RB88602005	NZJH
RB14	RB88602004	米奇不妙屋
RB15	RB88602002	大道Robot1
RB16	RB88602001	安中黑騎士

Venue D		
Referee	謝清仁	
Second Referee	許雅如	
No.	Team ID	Name
RA12	RB88601005	成功芭拿拿
RA13	RB88601004	德化衝鋒隊
RA14	RB88601003	從小玩車A隊
RA15	RB88601002	214隊
RB04	RB88602021	njjhC
RB05	RB88602020	njjhD
RB06	RB88602019	njjhB
RB07	RB88602018	njjhA
RB08	RB88602017	蘭中晨星

Elementary School Junior High School Senior High School

R4M-Advanced

Venue E		
Referee	王世恩	
Second Referee	林弘偉	
No.	Team ID	Name
RA16	RS06601001	SYB Robot
RB17	RS06602002	LOOKPUDUM 77
RB18	RS06602001	SK PLAY ALL TIME
RC7	RS06603002	SURABOT
RC8	RS06603001	SK MAGUIRE
RB19	RA88602015	三星國中R4M特攻隊
RB20	RA88602014	瘋狂印鈔機
RB21	RA88602013	搖滾觀落音
RC09	RA88603012	宜中-新青年霹靂戰隊

Venue F		
Referee	賴建宏	
Second Referee	張慧娟	
No.	Team ID	Name
RA17	RA88601016	匠人世家
RA18	RA88601015	綠草如茵
RA19	RA88601014	特務King
RA20	RA88601013	想不到吧
RB22	RA88602012	njjhONEA
RB23	RA88602011	njjhONEB
RB24	RA88602007	超神外送
RC10	RA88603011	宜中-垚淼焱麤
RC11	RA88603010	宜中-火箭老爹
RC12	RA88603009	我要發大財

Venue G		
Referee	吳豪承	
Second Referee	陳怡秀	
No.	Team ID	Name
RA21	RA88601012	什麼都不會！
RA22	RA88601011	不要告訴你
RA23	RA88601008	宜蘭新希望
RA24	RA88601006	R4M得第一
RB25	RA88602006	伊裝爾塔爾
RB26	RA88602005	小可愛石頭
RB27	RA88602004	比賽吧
RC13	RA88603008	森上狠有錢
RC14	RA88603004	我們很狼塞雷對不隊
RC15	RA88603003	拿個第一不是夢

Venue H		
Referee	曾如意	
Second Referee	李美諄	
No.	Team ID	Name
RA25	RA88601005	草國小創客A隊
RA26	RA88601004	龍海A隊
RA27	RA88601003	興龍華風
RA28	RA88601002	臺中好棒棒C
RA29	RA88601001	CO2隊
RB28	RA88602003	EDKH
RB29	RA88602002	萬和 A-Team
RB30	RA88602001	北新颯車族
RC16	RA88603002	蹦蹦炸彈
RC17	RA88603001	阿對對對對隊

Elementary School Junior High School Senior High School

World GreenMech Contest 2023

GreenMech Junior

4-4. GreenMech Junior Team Location Map

Main Stage B1

GMJr. Science

JRA

JSA01 平林四甲	JSA03 永順科學家	JSA05 布拉克星球－海洋徽號隊	JSA07 坤坤隊
JSA02 仙子伊布	JSA04 粉紅奇蹟	JSA06 布拉克星球－海洋保護者隊	JSA08 宣耀花栗鼠
JSA09 三星製造GMjr	JSA11 皮皮QQ隊	JSA13 北大國小亮晶晶	
JSA10 我們就是棒	JSA12 玉米機器人	JSA14 江謝家族	

JRB

JSB01 傑光科學小創客	JSB03 哈密瓜隊	JSB05 布拉克星球－海洋制霸隊	JSB07 布拉克星球－海洋保衛隊
JSB02 奇異果隊	JSB04 德化風火輪	JSB06 元氣安康隊	JSB08 必勝隊
JSB09 學進尚蓋好	JSB11 軍功GMG MGM	JSB13 德興黑熊	
JSB10 學進勁好	JSB12 火龍果隊	JSB14 德興灰鷹	

JRC

JSC01 特利迦	JSC03 Xinyi Boys	JSC05 HOPE 活力隊	JSC07 嬌小不嬌娃
JSC02 成群結隊	JSC04 Xinyi ABD	JSC06 HOPE 小巨人	JSC08 復旦創客
JSC09 坪頂Girls	JSC11 我是大豐	JSC13 麟恩初體驗	
JSC10 雙人徐	JSC12 豐馳電掣	JSC14 Deadly Mental Hospital	

JRD

JSD01 路和智高模木社A隊	JSD03 Xinyi The One	JSD05 華國小創客C隊	JSD07 芯澄則靈
JSD02 永興小創客	JSD04 ㄍㄥ以二	JSD06 have fun	JSD08 小鬼好愛哭
JSD09 王者衝鋒	JSD11 康壽NO.1	JSD13 炫豐Omega	
JSD10 東岳隊	JSD12 兔飛猛進	JSD14 炫豐Beta	

JRE

JSE01 炫豐Alpha	JSE03 新港國小B隊	JSE05 閨蜜二人組	JSE07 GXESA
JSE02 三和好棒棒	JSE04 可愛兔子組	JSE06 GXESB	JSE08 小花茉莉
JSE09 育仁灰熊隊	JSE11 文雅小小科學家	JSE13 湖西國小隊	
JSE10 對對隊	JSE12 協和智高模木社B隊	JSE14 秀林耀耀欲試	

JRF

JSF01 豆腐金剛隊	JSF03 忍者噴射隊	JSF05 八爪噴火龍總隊	JSF07 阿米巴原蟲
JSF02 蒸汽機關車	JSF04 文心3隊	JSF06 順利妤我同行	JSF08 秉正堂
JSF09 軍功GM	JSF11 軍功GMGM	JSF13 意想不到	
JSF10 God of Warrior	JSF12 YOYO	JSF14 秀林乘風破浪	

JRG

JSG01 碇內國小	JSG03 原來如此	JSG05 裕德小隊01	JSG07 六寶科學隊3
JSG02 線西風鯊隊	JSG04 裕德小隊03	JSG06 固拉多	JSG08 旋風
JSG09 娜麼多	JSG11 場贏隊	JSG13 六寶科學隊1	
JSG10 使命必達	JSG12 場ㄟ多Re咪	JSG14 贏戰D	

JRH

JSH01 金光榮	JSH03 cmsnp-gigogo	JSH05 聖公會基隱小學	JSH07 PSP GREEN II
JSH02 5% 設計行動	JSH04 信小海洋保育隊	JSH06 PSP GREEN I	JSH08 Carlo Jr
JSH09 Red Tigers			
JSH10 Mighty Heroes			

GMJr. Programmer

JRA

JPA01 星耀隊	JPA02 海洋隊	JPA03 超級貓貓	JPA04 永遠勝利
JPA05 布拉克星球－海洋守衛隊	JPA06 我最棒	JPA07 創客深淵	

JRB

JPB01 布拉克星球－勇義少女隊	JPB02 布拉克星球－海洋勇者隊	JPB03 森活A隊	JPB04 學進第一
JPB05 森活三隊	JPB06 森活二隊	JPB07 德興小虎	

JRC

JPC01 德興雲豹	JPC02 森活一隊	JPC03 Xinyi nana	JPC04 風神翼龍隊
JPC05 中山好棒棒隊	JPC06 Xinyi i-robot	JPC07 Hugo	

JRD

JPD01 JA Team	JPD02 BY Champions	JPD03 中港綠巨人4	JPD04 炫豐Delta
JPD05 德化海洋保衛隊	JPD06 永興程式創客	JPD07 過溪GOGO	

JRE

JPE01 布拉克星球－義勇勤禎隊	JPE02 布拉克星球－義辰睿隊	JPE03 大發旺旺菜	JPE04 大安創客奇兵
JPE05 文雅小小程式師	JPE06 小花我最行	JPE07 程式閃電隊	

JRF

JPF01 海洋救護隊	JPF02 布拉克星球－義伊仲隊	JPF03 新港國小A隊	JPF04 洪池隊
JPF05 關課家家酒隊	JPF06 機器人隊	JPF07 神風特攻隊	

JRG

JPG01 裕德小隊04	JPG02 裕德小隊02	JPG03 IQ180	JPG04 疾風
JPG05 甜心女孩	JPG06 翱翔雲端隊	JPG07 快樂小熊隊	

JRH

JPH01 皮神隊	JPH02 JOY	JPH03 光華之星	JPH04 越南胡臺校隊
JPH05 OCEANSTAR	JPH06 STEAM Mongolia		

5. Points to Remember

5-1. GreenMech FAQ

Q1: Does the label of creative device have to be marked with SDGS?

A1: The association has combined the label of creative device with SDGS. Please print new label file and affix it on the creative device!

Q2: Can creative device and green energy can be regarded as the same device?

A2: Creative devices and green energy devices should be separated into different devices, and both of them should affix their own labels.

Q3: How many scientific concepts does the GM advanced group have?

A3: The 3 general devices must demonstrate 6 scientific concepts.

Q4: How many actions does the Sophistication of the creative devices require?

A4: Basic - 5 different movements for full marks; Advanced - 6 different movements for full marks;

Q5: Does the order of creative device must follow the SDGs6、7 or 9?

A5: The order can be changed but must be labeled.

Q6: How to identify as one action? Can it be repeated?

A6: Different principles or different mechanisms are considered different actions, which can be repeated.

Q7: Does the level of the basic group need to explain the scientific principle when explaining it?

A7: When judging and scoring, questions will be asked depending on the status of the level.

5-2. R4M FAQ

Q1: What is the sequence order of R4M contest?

A1: In the event that teams have the same score, the first priority will be the completion time. If the completion time is still the same,the final result will be determined by the sequence order in Section 8-5-3 of the regulations.

Q2: Are the robot D of the R4M advanced capable of both bluetooth and program automation, and there is no difference in score?

A2: Bluetooth and programs are automatically regarded as remote control (refer to task 1 in the regulation).

5-3. GMJr. Science FAQ

Q1: If I'm doing a four wheeler, can I score as long as any two wheels enter the scoring area?

A1: If the team has more than four tires, the referee will ask the team which two tires will be used as the basis for scoring

Q2: When the model returns from Operation Area 2 to Operation Area 1, does the feet need to walk as it moves?

A2: No need to move on the return trip

Q3: Please introduce the extra rubber bands provided by organizer

A3: We only use ordinary rubber bands. Since the purpose of the competition is to expect players to learn the ability to adjust the model, the brand and specifications are not announced.

Q4: Does the spool car use the elasticity of the rubber band as power?

A4: Yes, please use the elasticity of the rubber band as the source of power. Contestants can refer to #1261 Spool Car Model

5-4. GMJr. Programmer FAQ

Q1: Is the contestant's preparation area all on the ground next to the map (without a tabletop) this time? How big is the area?

A1: The preparation area will be as close to the map as possible, but the map cards need to be tidied up after the practice time of each group is over, and the map cards can only be arranged on the track two minutes before the start of the competition to avoid unfairness.

Q2: Can the direction of the Start map card be changed to up, left or right?

A2: The direction of the Start map card is unlimited and can be modified.

Q3: When performing mission 3, can i passthrough the work station area as a path to traverse? (Because it spans two map card positions)

A3: You can pass through the work station area

Q4: When the map card is insufficient, can the map card that has been walked be disassembled and connected to the back?

A4: Yes, but pay attention to the possible displacement of the map card.

Q5: The time for each task is (2+5) minutes?

A5: The total time for team competitions is 2+5 minutes, not 2+5 minutes for a task.

Q6: Misson 5: Will the robot do actions when it arrives the star icon of base card or the arrow icon of base card ?

A6: When you reach the "star icon" on the base card, and the front of the main control box faces the arrow on the base card, the action will be executed.

Q7: Mission Two: Seawater acidification

A7: Each team draws entry positions before the competition from these four options(① (L3), ② (K4), ③ (K5),or ④ (L6)) .Green land area can only be entered via the port in the direction shown. Teams going onto the land, but not using the port earn a 10 point deduction.

6. Awards

6-1. World GreenMech Awards (GM Basic & R4M Basic)

Position	Prizes	Number of Awards
Gold Medal (1st place)	1. Award certificate for contestants and team leaders 2. USD $ 330 3. One Princess Cup Trophy	One team for each division
Silver Medal (2nd place)	1. Award certificate for contestants and team leaders 2. USD $ 165 3. One Princess Cup Trophy	One team for each division
Bronze Medal (3nd place)	1. Award Certificate for Contestant and team leaders 2. NTD USD $ 80 3. One Princess Cup Trophy	One team for each division
Honorable Mention Award	Award certificate for contestants and team leaders	For top 50th percentile in eachdivision, except teams receiving a gold, silver or bronze award
STEAM Overseas Educational Contribution Award	Award certificate for contestants and team leaders	For overseas countries

6-2. World GreenMech Awards

(GM Advanced & R4M Advanced)

Position	Prizes	Number of Awards
Gold Medal (1st place)	1. Award certificate for contestants and team leaders 2. USD $ 660 3. One Princess Cup Trophy	One team for each division
Silver Medal (2nd place)	1. Award certificate for contestants and team leaders 2. USD $ 330 3. One Princess Cup Trophy	One team for each division
Bronze Medal (3nd place)	1. Award Certificate for Contestant and team leaders 2. NTD USD $ 160 3. One Princess Cup Trophy	One team for each division
Honorable Mention Award	Award certificate for contestants and team leaders	For top 50th percentile in eachdivision, except teams receiving a gold, silver or bronze award
STEAM Overseas Educational Contribution Award	Award certificate for contestants and team leaders	For overseas countries

6-3. GreenMech Junior Contest Award

(Jr. Science & Jr. Programmer)

Position	Prizes	Number of Awards
Gold Medal (1st place)	1. Award certificates for contestants and team leaders 2. One product prize for each participant. 3. One Princess Cup Trophy	One team for each division
Silver Medal (2nd place)	1. Award certificates for contestants and team leaders 2. One product prize for each participant. 3. One Princess Cup Trophy	Two teams for each division
Bronze Medal (3nd place)	1. Award Certificates for contestants and team leaders. 2. One product prize for eachparticipant. 3. One Princess Cup Trophy	Three teams for each division
Honorable Mention Award	Award certificate for contestants and team leaders	For top 50th percentile in each division, except teams receiving a gold, silver or bronze award
STEAM Overseas Educational Contribution Award	Award certificate for contestants and team leaders	For overseas countries

World GreenMech Contest 2023 Awards

Remarks

1.The Contest Organizers hold the right to adjust the above prize schedules for any reason, which may mean increasing or decreasing them. The total number of teams entered in the competition may be a factor in deciding final prizes if the number of contestants' changes.

2.The Gold Medal, Silver Medal, Bronze Medal winners will be announced on the day of the contest. All certificates will be sent to the first named person listed on the registration document. Certificates will be sent after the contest and can be expected to arrive within one month of the award ceremony.

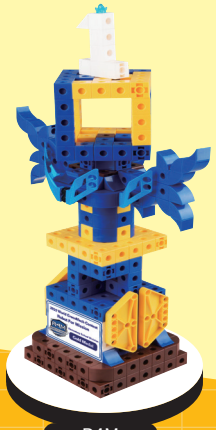
3.All contestants will be presented with digital certificates as a gesture of encouragement. These certificates will be downloadable by contestants and team leaders after the contest, and can be printed by participants.

4.Merit certificates for winning teams will be sent out within one month of the completed contest. Please pay attention to official website announcements. Winning teams that have not received awards should contact the Organizer for replacements. In the event of incorrect personal information being submitted during registration (i.e. wrong name, mail or email address) postage and other costs for replacement will be borne by the contestant for USD$7.

5.Winning Team Obligations Winning teams must cooperate with the Organizer to display and preserve their works. The Gold, Silver and Bronze Medal winners of the world-series of GM、R4M are required to provide their model for filming within one month of the competition, to facilitate promotion and further education. The award cash will be transferred to the team after the team provides the video.

GM, R4M & GMJr. Trophies

Green Mech



R4M

GMJr.

Contestant Medals

All Oversea Teams

World GreenMech Contest 2023

Appendix

● On Site

NCHU Student Center Restaurant
Links：http://oga1.nchu.edu.tw/recruit1/recruit.html
Actual business hours may be subject to change.

● Taxi Information

Metro Taxi Co., Ltd.
(04)4499178
Direct Taxi
Contact Number 55178

Taiwan Taxi Co., Ltd.
(04)22591918
(04)22465555
Direct Taxi
Contact Number 55688

ZhongNanHai Co., Ltd.
(04)23163388

● Sightseeing Recommandation

National Library of Public Information https://www.nlpi.edu.tw/

世界機關王 GREEN MECH
World Forum For GreenMech Promotion

World Forum For GreenMech Promotion
Office: 7F, No. 406, Taiwan Blvd.,Taichung, Taiwan, 403 R.O.C
Tel:+886-4-2320-3456 #38 Fax: +886-4-2320-3898
www.worldgreenmech.com

World GreenMech Contest Official Website

Co-organisers

台新銀行 THAMES & KOSMOS BABYBOOM 株式会社ヴィットハート PADA EDUCATION iq camp Rumahedukasi
NEW BRAIN IDYUT INNOVATION WINMT+ 雅稚幼教用品社 三豐文化 新運創意有限公司 兆全文化事業有限公司
中正國際文化 閎緯科技 上信文化 宏偉教育用品社 益寶文教用品社 童妍童宇文化事業有限公司
全方位文教 炳昌企業有限公司 傑出文教 邦森文化事業有限公司

Sponsor

智高實業股份有限公司 GENIUS TOY TAIWAN CO.,LTD. JYiC.net 勁園國際 laya大雅廚具 SF 智榮基金會