

# 2022 World GreenMech Contest Manual



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

2022

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# World GreenMech Contest

# 2022

## Overview

### Contest Purpose

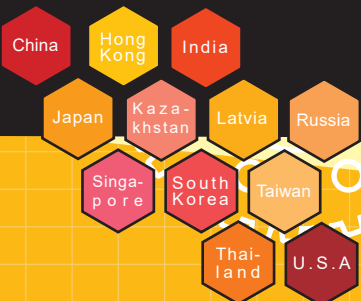
The 2022 World GreenMech Contest is a fun engineering competition run by the World Forum For GreenMech Promotion. Using scientific principles, this competition combines the following five aspects of learning and growing: Science, Technology, Engineering, Art, and Mathematics, also referred to as STEAM. 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.

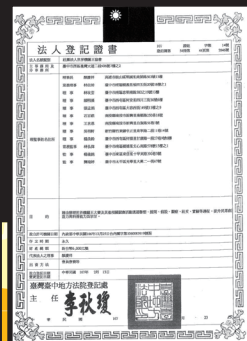
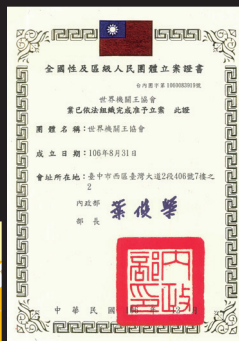
This year the GreenMech Jr. contest has two components – “Jr. Science” and “Jr. Programmer”. Jr. Science is an entry level opportunity for learners to get involved in simple engineering projects. It's specially designed for children age 5-9. Jr. Programmer uses a variety of code oriented challenges to 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.



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.



- S** S = Science
- T** T = Technology
- E** E = Engineering
- A** A = Art
- M** M = Mathematics



# World GreenMech Contest

2022

## Introduction

The GreenMech contest was established in 2006, this year we are celebrating the 14<sup>th</sup> 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

2022

Contest  
Schedule

## 2022 World GreenMech Contest - Contest schedule GreenMech Schedule (Basic and Senior high school)

Time	Item	Remarks
07:40 ~ 08:20	Registration	<ol style="list-style-type: none"><li>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.</li><li>2. Only contestants may be in the competition area after 08:00am. Team leaders and parents/guardians are not permitted after this time.</li></ol>
08:00 ~ 08:50	Materials check and registration check.	<ol style="list-style-type: none"><li>1. The team leaders shall not enter the competition venue after 8:00 AM.</li><li>2. Judges will carry out a building materials inspection. Except for the chain, no blocks may be assembled in advance.</li><li>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.</li><li>4. Personal items can be brought into the venue but must be placed on the table in conjunction with the inspection records.</li><li>5. Contestants need to present their Certificate of Student Enrollment at this time, see section 11.1 for more information.</li></ol>
08:50 ~ 09:00	Clarification of Rules	
09:00 ~ 11:00	Production & Testing time	<ol style="list-style-type: none"><li>1. Please observe all competition rules.</li><li>2. When leaving, do not run, be careful not to touch another group's work.</li><li>3. There will be 120 minutes between commencement and lunch.</li></ol>
11:00 ~ 12:10	Appraisals.	Please refer to section 7.5.
12:50 ~ 13:50	Award Ceremony	Organizers make every effort to finish on time, but patients may be required depending on announcements and other possible delays.

# World GreenMech Contest

2022

## Contest Schedule

### GreenMech Schedule (Advanced)

Time	Item	Remarks
07:40 ~ 08:20	Registration	<ol style="list-style-type: none"><li>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.</li><li>2. Only contestants may be in the competition area after 08:00am. Team leaders and parents/guardians are not permitted after this time.</li></ol>
08:00 ~ 08:50	Materials check and registration check.	<ol style="list-style-type: none"><li>1. The team leaders shall not enter the competition venue after 8:00 AM.</li><li>2. Judges will carry out a building materials inspection. Except for the chain, no blocks may be assembled in advance.</li><li>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.</li><li>4. Personal items can be brought into the venue but must be placed on the table in conjunction with the inspection records.</li><li>5. Contestants need to present their Certificate of Student Enrollment at this time, see section 11.1 for more information.</li></ol>
08:50 ~ 09:00	Clarification of Rules	Participants attend the opening ceremony.
09:00 ~ 11:40	Production & Testing time.	<ol style="list-style-type: none"><li>1. Please observe all competition rules.</li><li>2. When leaving, do not run, be careful not to touch another group's work.</li><li>3. There will be 160 minutes between commencement and lunch.</li><li>4. By 11:00am the Scientific Principles reference table will be collected by the Organizer.</li></ol>
11:40 ~ 12:30	Lunch.	Remember to assist in sorting the trash.
12:30 ~ 12:50	Announcements.	<ol style="list-style-type: none"><li>1. Contestants should wait for the Organizer's announcements and then be prepared to continue.</li><li>2. If Contestants are not present at this time, they may not continue with the competition.</li></ol>
12:50 ~ 13:00	Fine-tuning.	Wait for the Organizers instruction to begin.
13:00 ~ 15:40	Appraisals.	Please refer to section 7.5.
15:40 ~ 16:10	Grading Time	
16:50 ~ 17:20	Award Ceremony.	Organizers make every effort to finish on time, but patients may be required depending on announcements and other possible delays.

# World GreenMech Contest

2022

Contest Schedule

## R4M Schedule

Time	Item	Remarks
07:40 ~ 08:20	Registration	<ol style="list-style-type: none"><li>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.</li><li>2. Only contestants may be in the competition area after 08:00am. Team leaders and parents/guardians are not permitted after this time.</li></ol>
08:00 ~ 08:40	Materials check and registration check.	<ol style="list-style-type: none"><li>1. The team leaders shall not enter the competition venue after 8:00 AM.</li><li>2. Judges will carry out a building materials inspection. Except for the chain, no blocks may be assembled in advance.</li><li>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.</li><li>4. Personal items can be brought into the venue but must be placed on the table in conjunction with the inspection records.</li><li>5. Contestants need to present their Certificate of Student Enrollment at this time, see section 11.1 for more information.</li></ol>
08:40 ~ 09:15	Clarification of Rules	Explain the rules and the precautions of the competition.
09:15 ~ 11:15	Assembly & Practice Time	
09:40 ~ 11:30	Work Submission Period	<ol style="list-style-type: none"><li>1. Check to confirm the robot does not contain metal parts.</li><li>2. The robot and any spare car or other additions shall be weighed.</li><li>3. Participating robots (including spares) need to be verified by judges and will be retained until the contest time.</li><li>4. 5-Points may also be deducted for messy or untidy work areas.</li><li>5. For robot size regulations please see section 8.4 .</li><li>6. After Submitting their work, contestants need to put all items (such as notebook, blocks, unused electronic control equipment, etc.) away from the competition area.</li></ol>
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	
15:45 ~ 16:35	Awards Ceremony	Organizers make every effort to finish on time, but some patients may be required depending on announcements and other possible delays.

# World GreenMech Contest

2022

Contest Schedule

## GreenMech Junior Schedule (Science)

Time	Item	Remarks
08:40 ~ 09:00	Registration and 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.
09:00 ~ 09:10	Opening ceremony, rules reminder, lot drawing for scoring area	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.
09:10 ~ 09:35	Competition One: New boat on the sea Assembly & Practice Time	3. Contestants need to present their Certificate of Student Enrollment at this time, please see 11.1 in the full rule book for more information.
09:35 ~ 10:15	Competition One: New Boat on the Sea Competition Time	1. Contestants can only use materials provided by the organizer on site, please see 9.2 in the full rule book for more information. 2. Models produced for the competition are built and tested at the same time.
10:15 ~ 10:35	Competition Two: Casting the Rod Assembly & Practice Time	1. During the competition, contestants may only use the provided peg remover. Other outside tools are not permitted. 2. Models will be weighed before the competition begins.
10:35 ~ 11:15	Competition Two: Casting the Rod Competition Time	Contestants can only use materials provided by the organizer on site, please see 9.5 in the full rule book for more information.
11:15 ~ 11:40	Site Recovery	During the competition, contestants may only use the provided peg removal tool. Other outside tools are not permitted.
11:40 ~ 11:55	Grading Time	All contestants move to the award ceremony venue.
11:55 ~ 12:20	Awards Ceremony.	Grading Time
		Awards will be given after the results are settled.



# World GreenMech Contest

2022

Contest Schedule

## GreenMech Junior Schedule (Programmer)

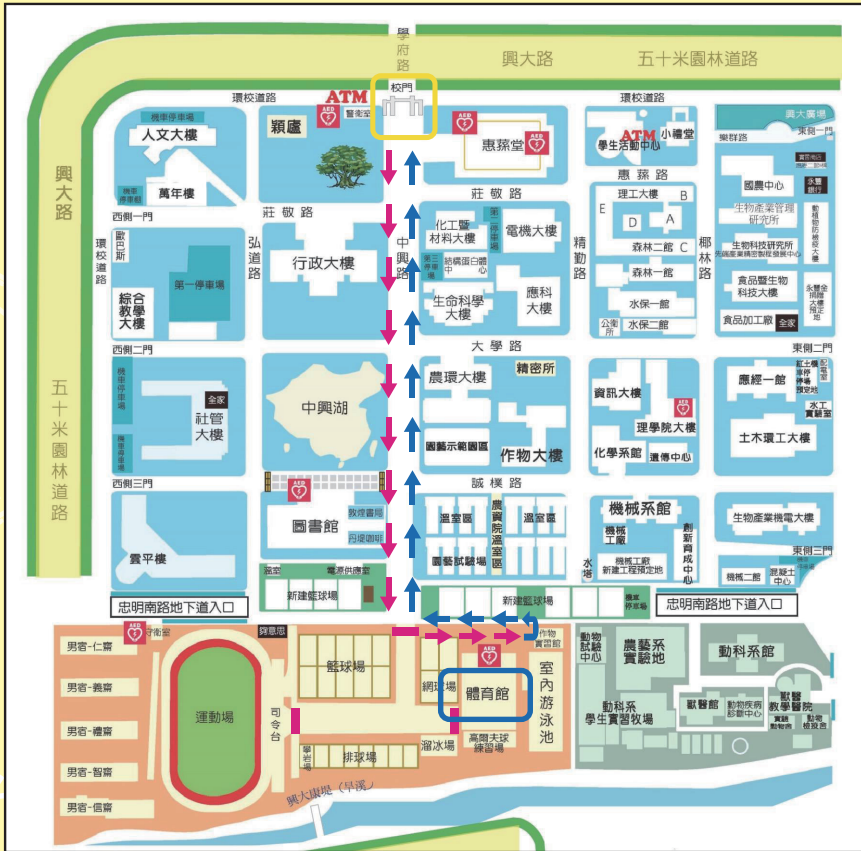
Time	Item	Remarks
08:20 ~ 08:50	Registration and materials inspection	Teams may bring up to 3 robot control boxes, but all device memories must be erased during inspection
08:50 ~ 09:00	Opening Ceremony	Participants attend the opening ceremony.
09:00 ~ 09:10	Regulation review & Lot drawing for scoring area	Explain the rules and the precautions of the competition.
09:10 ~ 09:20	Warm-up / Practice Time	Teams can prepare for the assembly section of the official competition.
09:20 ~ 09:50	Warm-up / Competition Time	Teams must complete the warm-up challenge within the allotted time.
09:50 ~ 11:30	Official Competition 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.
11:30 ~ 11:55	Grading Time	
11:55 ~ 12:20	Awards Ceremony	Awards will be given after the results are settled.

# World GreenMech Contest

# 2022

# Contest Floor Plan

## Campus Map

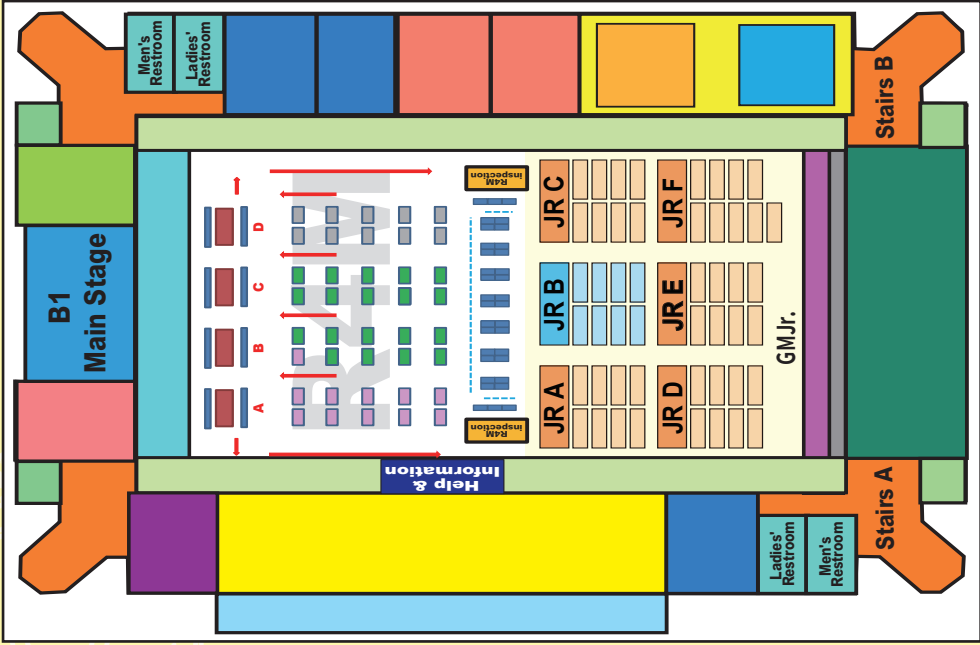


Traffic Flows to the Contest Venue and the Lounge

# World GreenMech Contest

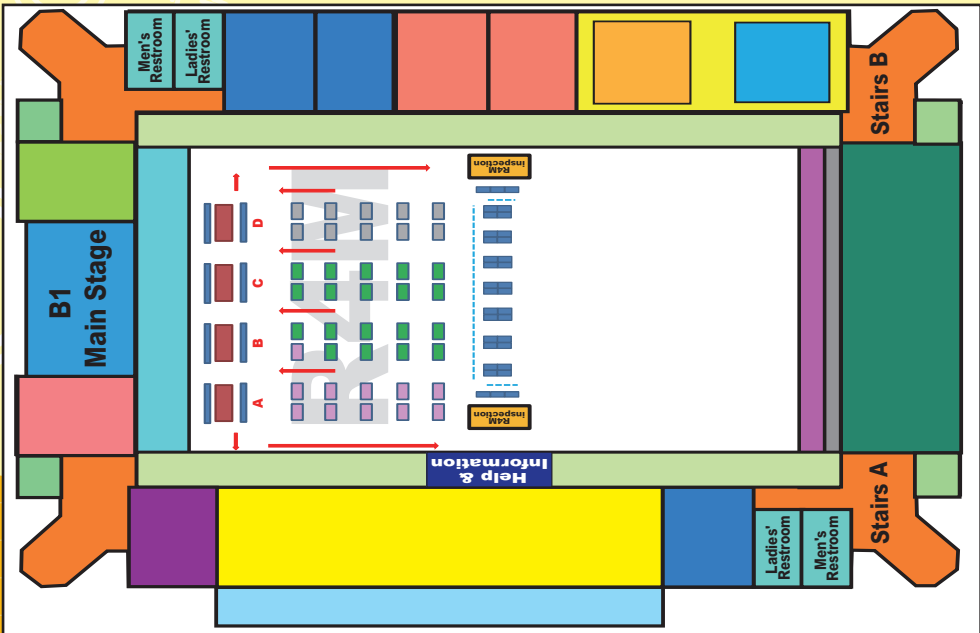
2022

## Contest Floor Plan



R4M & GMJ (GreenMech Jr.) Floor Plan -

B1 in the morning



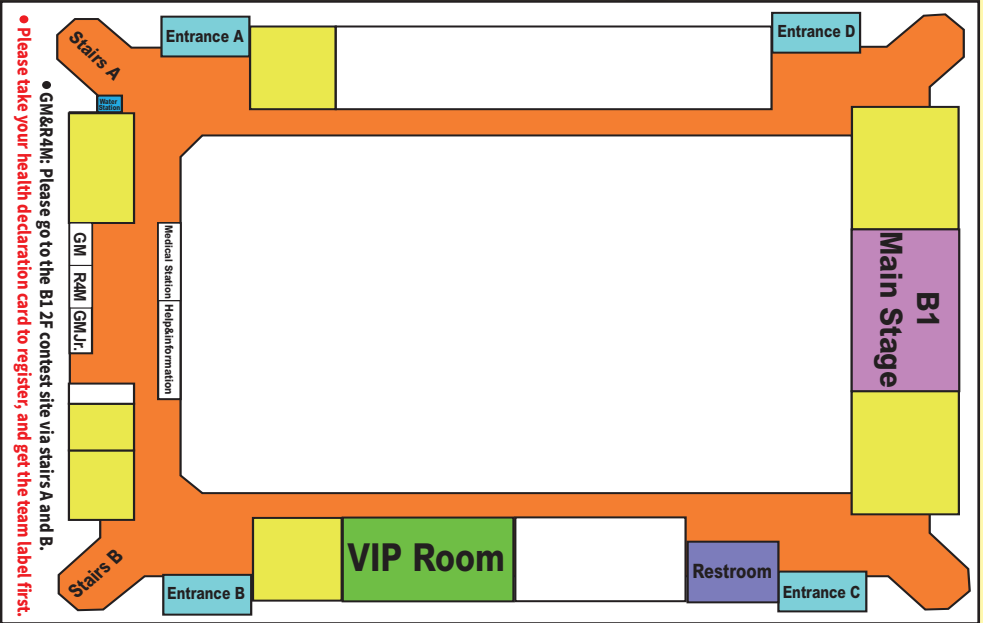
R4M Floor Plan -

B1 in the afternoon

# World GreenMech Contest

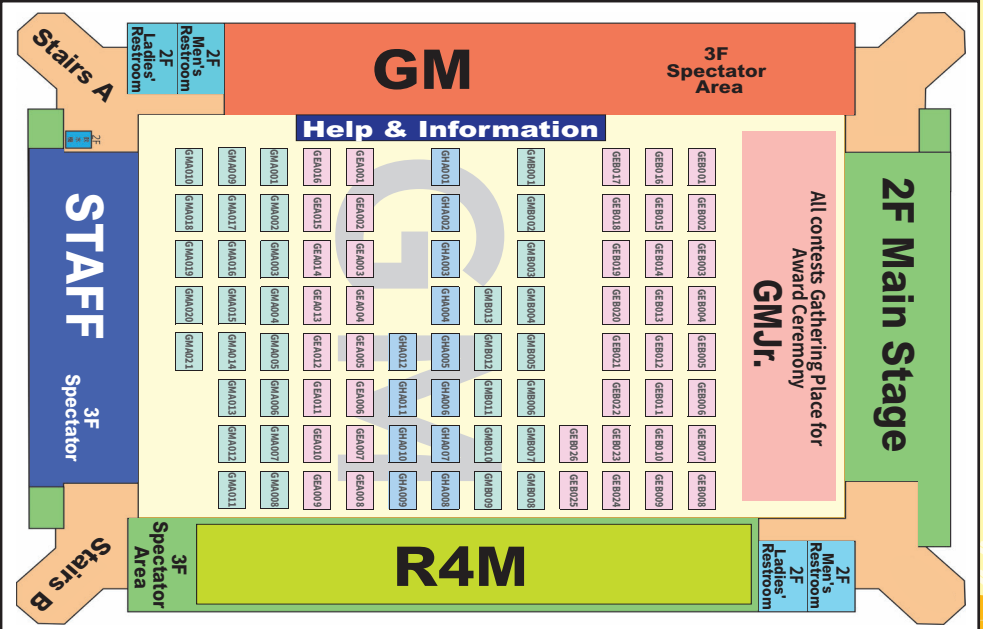
# 2022

# Contest Floor Plan



• GM&RAM: Please go to the B1 2F contest site via stairs A and B.  
 • Please take your health declaration card to register, and get the team label first.

GM (GreenMech) Floor Plan – 1F



GM (GreenMech) Floor Plan – 2F

# World GreenMech Contest

## 2022

### Contest Floor Plan

## GreenMech Team Location Map

### Main Stage

GEB001 海山科研一	GEB002 中港綠巨人	GEB003 搭棚大師	GEB004 未來之星	GEB005 信義-獨行俠	GEB006 瑞坪B	GEB007 小天使	GEB008 創意無限
GEB016 新林國小創客三隊	GEB015 Great Master	GEB014 YT風箏隊	GEB013 浪吧! 珠珠隊	GEB012 萬雷Maker	GEB011 興隆國小A	GEB010 過關新將顯神通	GEB009 凱旋特攻隊
GEB017 信義-捍衛戰士	GEB018 新林國小創客二隊	GEB019 威格無敵瑪莉歐	GEB020 文化對不隊	GEB021 威格超級瑪利歐	GEB022 火鳥機關王	GEB023 小豬3+1	GEB024 埔小臥龍隊
						GEB026 詰安隊	GEB025 埔小四少隊
GMB001 建業小霸王	GMB002 三星國中GM基礎組	GMB003 瑞坪A	GMB004 北中冠京隊	GMB005 東光玩客隊	GMB006 排山倒海	GMB007 某某	GMB008 沒有名字
			GMB013 三光國中	GMB012 無言以隊	GMB011 映明水電工	GMB010 智高復建團	GMB009 流浪的小孩
GHA001 宜蘭高中-宜中有品 成功有你	GHA002 宜蘭高中-大吉大利	GHA003 新生代	GHA004 佳城好帥對不隊	GHA005 環保小煎餅	GHA006 Godeit	GHA007 環境高鋒會	GHA008 蜂蟻雲詭
				GHA012 東中四朵花	GHA011 蜂迴路轉	GHA010 黃河之水天上來	GHA009 16
GEA001 鯨采	GEA002 四葉幸運草	GEA003 ocean world	GEA004 興隆國小B	GEA005 機不可失	GEA006 石來運轉	GEA007 快樂天堂	GEA008 新林國小創客隊
GEA016 我們這一隊	GEA015 畢業	GEA014 小花機關隊	GEA013 生命之樹	GEA012 包你幸福洋溢	GEA011 我們很厲害 你說對 不隊	GEA010 大村紫鑽遊戲	GEA009 我們好棒棒隊
GMA001 人見仁愛	GMA002 龍行者	GMA003 哥百拉倉鼠	GMA004 東光美客隊	GMA005 海王之子	GMA006 末日倒數	GMA007 柏賈隊	GMA008 木木君
GMA016 山雨欲來誰能阻擋?	GMA015 蘋果樹	GMA014 興隆傳說	GMA013 中正智慧王	GMA012 宜蘭生聲不息	GMA011 禾禾	GMA010 自造者聯盟	GMA009 鋼鐵盪鞦韆
GMA017 地球之肺	GMA018 防疫-逆轉勝	GMA019 特斯拉	GMA020 未來城市	GMA021 跳躍吧! 超級大包 歐			

Elementary School

Junior High School

Senior High School

# World GreenMech Contest

## 2022

### Contest Floor Plan

#### GreenMech Team Location Map

### Main Stage

#### GM Jr.-Programmer

Venue A		Venue B		Venue C		Venue D	
JPA01 唵~勝了隊	JPA02 燻魚隊	JPB01 米奇妙妙屋	JPB02 思賢鶴	JPC01 愛創客	JPC02 廣興程式創客隊	JPD01 森活二隊	JPD02 森活三隊
JPA03 魚池隊	JPA04 史奎奇勇士隊	JPB03 5%設計行動	JPB04 啲啲隊	JPC03 高原B	JPC04 極光隊	JPD03 草履蟲	JPD04 王梨天下
JPA05 小王子	JPA06 QQ構君	JPB05 HIS 波斯頓 機器人之王隊	JPB06 HIS 波斯頓 智慧隊	JPC05 明智的選擇	JPC06 小花我最行	JPD05 海與國小	JPD06 德與黃金獵犬
JPA07 哥吉拉隊	JPA08 四通八達	JPB07 瀚寶隊	JPB08 先瘋隊	JPC07 森活一隊	JPC08 布拉克星球 城市隊	JPD07 德與小虎隊	JPD08 秀峰

#### GM


# World GreenMech Contest

# 2022

## Contest Floor Plan

### Robot 4 Mission Team Location Map

## Main Stage

### R4M

Venue A				Venue B				Venue C				Venue D										
Referee Second Referee		Referee Second Referee		Referee Second Referee		Referee Second Referee		Referee Second Referee		Referee Second Referee		Referee Second Referee										
R8860 1001	統一發票真的好難隊	RA 06	R8860 1006	天之矛	RA 11	R8860 1014	草國小創客	RB 05	R8860 2007	南榮B隊	RB 10	R8860 2012	恐龍小寶貝	RB 15	R8860 2017	青龍好帥	RC 01	R8860 3001	素萊匪俠	RC 06	R8860 3007	白銀聖騎士團
R8860 1002	匠人世家	RA 07	R8860 1007	興龍隊	RB 01	R8860 2001	安中黑騎士	RB 06	R8860 2008	報不進去	RB 11	R8860 2013	蛤啦	RB 16	R8860 2018	能贏就好	RC 02	R8860 3002	氫眼Joe摩隆	RC 07	R8860 3008	夢想齒輪
R8860 1003	藍夢翔	RA 08	R8860 1008	華鳳隊	RB 02	R8860 2002	義大利牛郎團	RB 07	R8860 2009	njjhA	RB 12	R8860 2014	長頸鹿小可愛	RB 17	R8860 2019	三星國中R4M	RC 03	R8860 3003	皮皮蝦	RC 08	R8860 3009	YLSH-築夢踏實
R8860 1004	Deoxy-ribonucleotides	RA 09	R8860 1009	我們不是機器人隊	RB 03	R8860 2004	雙向奔赴	RB 08	R8860 2010	njjhB	RB 13	R8860 2015	湖中跑得快	RB 18	R8860 2020	搖滾滾落音	RC 04	R8860 3005	破斧陳郭	RC 09	R8860 3010	森上梅友鉗
R8860 1005	一線曙光	RA 10	R8860 1013	I'm the best-B	RB 04	R8860 2005	南榮A隊	RB 09	R8860 2011	njjhC	RB 14	R8860 2016	BRW	RB 19	R8860 2025	稀有動物	RC 05	R8860 3006	好問題	RC 10	R8860 3013	冷血動物

Elementary School

Junior High School

Senior High School

## GMJr.-Science

EA01 黎明隊	EA02 興風化雨(一)	EA03 天神隊	EA04 創龍客	KB01 超級寶可夢	KB02 天藍	KB03 DRAGON	KB04 爆破貝利亞	EC01 蘭蘭博雷	EC02 Lucky7	EC03 協和聯手	EC04 海王星
EA05 飛翼	EA06 我們騎著竹節蟲	EA07 綠西風車隊	EA08 孔姊妹	KB05 阿鞋歐杖隊	KB06 火星	KB07 HIS 波斯糖超強齒膠隊	KB08 瑞鳴宜動	EC05 SANS	EC06 小藍	EC07 HIS 波斯頓 天竺鼠隊	EC08 HIS 波斯頓 領 毒蛇隊
EA09 武士在吃蘿蔔糕	EA10 旋風隊	EA11 綠西風車隊	EA12 瑞雷風光隊	KB09 阿仁大無腦	KB10 路卡利歌	KB11 藍標來挑戰	KB12 布拉瓦聖球冒險隊	EC09 HIS 波斯頓 兔兔隊	EC10 HIS 波斯頓 領 海豹隊	EC11 恩翼阿齊	EC12 Victor隊
EA13 大黃蜂	EA14 勝利好我同行	裁判桌	EA15 協和304	EB01 平林三甲A	裁判桌	KB13 5%設計行動	KB14 布拉瓦聖球冒險隊	EC13 青溪冠軍一隊	裁判桌	EC14 青溪冠軍二隊	EC15 我們最強棒
ED001 高原A	ED002 廣興科學劇客隊A	裁判桌	ED003 瑞雷B隊	EE01 小花茉莉	EE02 401-1	裁判桌	EE15 1715	EF01 翔龍雲霄	裁判桌	EF02 德興小黑熊	EF03 欣欣向梧
ED004 橋梅小創客	ED005 HIS 波斯頓 黑曜石隊	ED006 信義-昕鈞隊	ED007 三星製造GMJr隊	EE03 401-2	EE04 大安向新街	EE05 華南先鋒	EE06 獅豹隊	EF04 瑞興小雲豹	EF05 僑光科學小創客	EF06 平和國小	EF07 僑光科學小創客2號
ED008 信義-博鈞	ED009 信義-有理射手	ED010 廣興科學高客隊B	ED011 三一和一樣	EE07 永保領先	EE08 綠水精字隊	EE09 石頭家族	EE10 拾德小隊	EF08 躍馬中原	EF09 廣興A	EF10 宣揚加油	EF11 傑出菁英
ED012 三和傳第一	EA013 布拉瓦聖球 勇士隊	ED014 炫翼有我	ED015 3-2	EE11 海山科研二	EE12 北大園小亮晶晶	EE13 水男孩	EE14 成功一定有我	EF12 丞致歡迎	EF13 聯約突起	EF14 甘之如飴	EF15 光頭Best

Kindergarten

Elementary School



# World GreenMech Contest

2022

Points to Remember



## 1. GreenMech (Basic) FAQ

Q1 : Do the devices in the GM Basic Contest have to meet the theme of coexisting with water and soil?

A1 : There is no theme needed in the GM Basic Contest.

Q2 : Do the devices in the GM Basic Contest need to use paper cards to make its appearance look better? Is there a clear rating for appearance?

A2 : No need to use paper cards, because there is no scoring item of appearance.

Q3 : How to measure the 30cm for raising the flag vertically?

A3 : The vertical distance between the initial position and the final position of the flag should be at least 30 cm.

Q4 : What does it mean that using bifurcation track(s) to send four balls to different positions at a distance more than 15 cm away respectively?

A4 : After the bifurcation track, the final position of the four balls is 15 cm from each other.

Q5 : In the advanced task 2 of the GM Basic Contest, whether it is necessary to trigger the next device with the ball? Or can the next device be triggered by other object only if the ball is thrown out more than 30 cm?

A5 : The next device can be triggered by either the ball or the elastic powered launching device.

Q6 : How does the order of the advanced tasks of the GM basic group be drawn?

A6 : On the competition day, the sequence of the advanced tasks will be drawn twice: one for elementary school teams, and the other for junior high school teams. And the drawn result will be used for all teams.





# World GreenMech Contest

2022

Points to Remember



## 2. R4M FAQ

Q1 : Can contestants use materials like paperboards? Or can contestants only use Gigo paperboards?

A1 : In this competition, contestants can only use Gigo blocks (including Gigo papercards). However, other materials are not allowed.

Q2 : Can contestants use portable chargers (power banks) marked with voltage?

A2 : If the voltage of each power bank is compliant with Power Supplies & Restrictions, it can be used.

Q3 : Are there a number of limitations for the main control board of the automation platform?

A3 : There is no number of restrictions on the main control board, but the number of motors and the total voltage is limited.

Q4 : Can contestants use two main control boards in the A car?

A4 : There is no number of restrictions on the main control board, but the number of motors and the total voltage is limited.

Q5 : If the Gigo server motor is broken, can contestants replace it? Is there any restriction?

A5 : Each team will follow the school exercises or regional competitions to comply with their regulations. But in the World GrenMech Contest, the part specification needs to follow to the regulations of World GreenMech. If the team will get the prize in the World GreenMech, The organizer has the right to cancel the qualification of the winning qualification in accordance with the specifications of the robot in accordance with the regulations.

Q6 : If contestants need to extend the length of the motor wire, can it be done before the competition?

A6 : The wire part can be extended before the competition.



# World GreenMech Contest

2022

Points to Remember



Q7 : Can R4M use cotton threads or rubber bands?

A7 : It's okay to use cotton threads or rubber bands for mechanical operation, but it is not allowed to use them to fix or strengthen the structure or car body.

Q8 : Where is the default location of the Operator?

A8 : The location of the Operator is determined by the participating team. It can be placed in the groove or on the red bar. Because when it is placed in the groove, it may be not be easy to hook out. Because when it is hanged on the red bar, it is easy to drop out. Each team can decide to place it in either position according to its robots.

Q9 : For task four, if the horseshoe is not completely placed on the black base grid, but it crosses to the middle green dividing line, how is the score calculated?

A9 : The team can get points as long as the horseshoe touches the black base grid. However, the team gets no points if the horseshoe entirely lies on the green line without touching the black base grid.

Q10 : If only half of the black pieces in Task 6 are in the gear, are there any points?

A10 : Black, grey and white pieces must be wholly in the gear, so the team can get points.

Q11 : For task 4, will the yellow horseshoes get points if they are stacked together?

A11 : The team can get points as long as the horseshoe are in the black base grid, whether the horseshoes are stacked or not.

Q12 : May a team add the counterweight (such as two tires) after A car returns to the starting point?

A12 : Please refer to Regulations 8.2.2., the teams can only repair the arms, they cannot change the structure of the car (such as the tires).

# World GreenMech Contest

2022

Awards

## World GreenMech Awards

GreenMech Contest (Basic)

Position	Prizes	Number of Awards
Gold Medal (1 <sup>st</sup> place)	1. Award certificate for contestants and team leader. 2. Cash NTD \$ 10000 3. One Princess Cup Trophy	One team for each division
Silver Medal (2 <sup>nd</sup> place)	1. Award certificate for contestants and team leader. 2. Cash NTD \$ 5000 3. One Princess Cup Trophy	Two teams for each division
Bronze Medal (3 <sup>rd</sup> place)	1. Award Certificate for Contestant and team leader 2. Cash NTD \$ 2500 3. One Princess Cup Trophy	Three teams for each division
Honorable Mention Award	Award certificate for contestants and team leader.	For top 50 <sup>th</sup> percentile in each division (not include gold, silver, bronze medal)
STEAM Overseas Educational Contribution Award	Award certificate for contestants and team leader.	For overseas countries

# World GreenMech Contest

2022

Awards

## GM(Advanced & Senior high school) and R4M Contest Award

Position	Prizes	Number of Awards
Gold Medal (1 <sup>st</sup> place)	<ol style="list-style-type: none"><li>1. Award certificate for contestants and team leaders.</li><li>2. Cash NTD \$ 20000</li><li>3. One Princess Cup Trophy</li></ol>	One team for each division
Silver Medal (2 <sup>nd</sup> place)	<ol style="list-style-type: none"><li>1. Award certificate for contestants and team leaders.</li><li>2. Cash NTD \$ 10000</li><li>3. One Princess Cup Trophy</li></ol>	Two teams for each division
Bronze Medal (3 <sup>rd</sup> place)	<ol style="list-style-type: none"><li>1. Award certificate for contestants and team leaders.</li><li>2. Cash NTD \$ 5000</li><li>3. One Princess Cup Trophy</li></ol>	Three teams for each division
Honorable Mention Award	Award certificate for contestants and team leader.	For top 50th percentile in each division (not include gold, silver, bronze medal)
STEAM Overseas Educational Contribution Award	Award certificate for contestants and team leader.	For overseas countries

# World GreenMech Contest

2022

Awards

## GreenMech Junior Contest Award

Position	Prizes	Number of Awards
Gold Medal (1 <sup>st</sup> 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 (2 <sup>nd</sup> 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
Bronze Medal (3 <sup>rd</sup> 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
Honorable Mention Award	Award certificate for contestants and team leader.	For top 50th percentile in each division (not include gold, silver, bronze medal)
STEAM Overseas Educational Contribution Award	Award certificate for contestants and team leader.	For overseas countries

# World GreenMech Contest

# 2022

# 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 teams must cooperate with the Organizer to display and preserve their works. The Gold Medal and the Silver Medal winners of the world-series are required to provide their model for filming within one month of the competition, to facilitate promotion and further education. If it is preferred, contestants can film their model in operation before the contest.

## GM, R4M & GMJR Trophies

## Contestant Medals



GM



R4M



GMJR



GMJR

# World GreenMech Contest

2022

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 Recommendation

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



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World GreenMech Contest  
Official Website

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