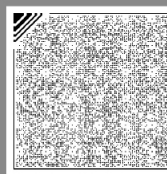


主辦單位：  
Organização:  
Organizers:

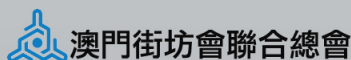


協辦單位：  
Coorganização:  
Co-organizer:



VOICEYE CODE

支持單位：  
Apelos:  
Supported by:



# 智能

# 行動輔具

**Concurso de Design de Auxiliares de Mobilidade Inteligentes**  
*Intelligent Mobility Aid Design Competition*

# 設計比賽

報名 | Período de Inscrição | Application Period

**2025年7月27日(日)至10月15日(三)**  
**27 de Julho (domingo) a 15 de Outubro de 2025 (quarta-feira)**  
**27 July (Sunday) to 15 October 2025 (Wednesday)**

查詢 | Informações | Enquiries

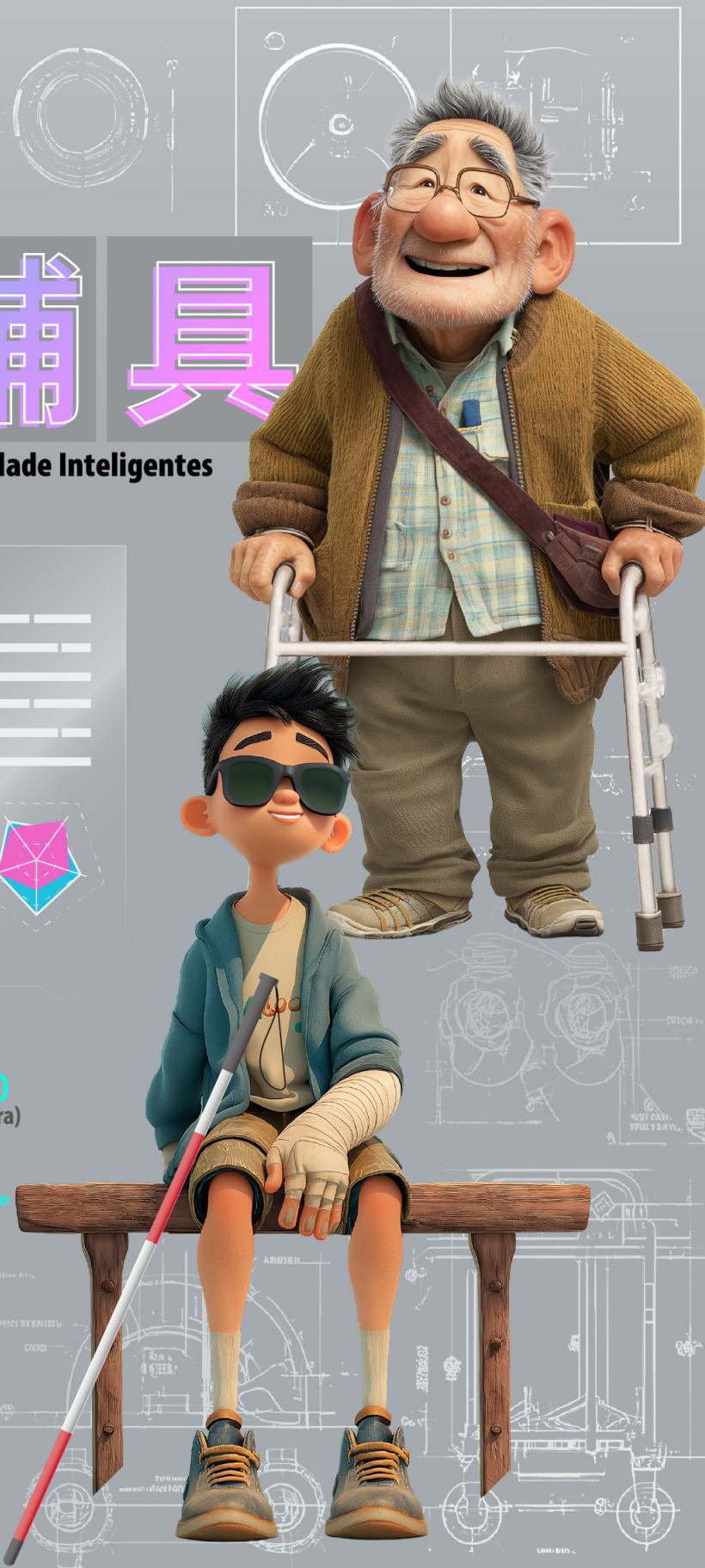
8795 7245 (溫小姐) 或 8795 7249 (賴小姐) [multimedia@msc.org.mo](mailto:multimedia@msc.org.mo)  
Sra. Wan – 8795 7245 / Sra. Lam – 8795 7249 [multimedia@msc.org.mo](mailto:multimedia@msc.org.mo)  
Ms. Wan – 8795 7245 / Ms. Lam – 8795 7249 [multimedia@msc.org.mo](mailto:multimedia@msc.org.mo)

報名方式及其他詳情請參閱活動網頁：

Para inscrição e mais informações, consulte a página electrónica do evento :  
For registration and further details, please visit the event website :

**[www.msc.org.mo](http://www.msc.org.mo)**

或掃描以下QR CODE  
ou scaneie o código QR abaixo  
or scan the QR CODE below



# **Smart Mobility Aid Design Competition Regulations**

## **Introduction**

To encourage secondary school students to apply innovative thinking, scientific knowledge, and practical skills to address the needs of elderly persons and persons with disabilities in Macao, this competition aims to promote the design of intelligent assistive devices and technologies that enhance users' autonomy and overall well-being. The event seeks to cultivate young people's awareness and concern for ageing and disabled populations by integrating science, engineering, and humanistic care. It encourages interdisciplinary collaboration, fosters social responsibility among youth, and promotes the development and popularisation of gerontechnology and rehabilitation technology in Macao, contributing to the creation of an inclusive and barrier-free environment for all.

**Organisers :** Social Welfare Bureau (IAS), Macao Science Center

**Co-organiser :** Macao Polytechnic University

**Supported by :** Caritas Macau, General Union of Neighbourhood Associations of Macau

## **Eligibility:**

Students enrolled in junior secondary to senior secondary levels in Macao schools during the 2025/2026 academic year.

## **Competition Categories**

- **Junior Secondary Division:** For students from Form 1 to Form 3
- **Senior Secondary Division:** For students from Form 4 to Form 6

## **Competition Focus**

Innovative design projects incorporating technological elements that respond to the practical mobility aid needs of elderly persons and persons with disabilities.

## **Format of the Competition**

1. Teams may register under a single school or as inter-school teams, with 3 to 5 members per team.
2. Each team must be supervised by 1 to 2 advisors. Each advisor may supervise more than one team from their school.

3. Each participant may only join one team. Once registration is confirmed, participants are not allowed to transfer to another team. Any participant found to be part of more than one team will result in disqualification of all related teams.

## Awards

### Junior Secondary Division

- First Prize × 1 team: MOP 2,500 and one trophy per team
- Second Prize × 1 team: MOP 1,600 and one trophy per team
- Third Prize × 1 team: MOP 1,200 and one trophy per team
- Merit Award × 3 teams: MOP 600 and certificate per team

### Senior Secondary Division

- First Prize × 1 team: MOP 3,000 and one trophy per team
- Second Prize × 1 team: MOP 2,000 and one trophy per team
- Third Prize × 1 team: MOP 1,500 and one trophy per team
- Merit Award × 3 teams: MOP 800 and certificate per team

### Most Popular Award

The team receiving the highest number of votes from the public during the final event will be awarded a commemorative banner.

- The judging panel reserves the right to withhold any award.
- All award recipients and their advisors will receive certificates of merit.

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## Competition Timeline

Stage	Date
Briefing Session	Sunday, 27 July 2025
Registration Period	27 July (Sun) to 15 October 2025 (Wed)
Design Competition Workshop (Preliminary Round)	October 2025
Submission for Preliminary Round	Saturday, 1 November to Sunday, 30 November 2025

Stage	Date
Announcement of Finalists	Tuesday, 30 December 2025 (The organiser will not notify non-finalist teams individually.)
Training Programme (Final Round)	February to March 2026
Submission for Final Round	Wednesday, 15 April to Friday, 15 May 2026
Final Competition and Awards Ceremony	Sunday, 14 June 2026
Exhibition of Award-winning Entries	July to December 2026

### Registration and Submission Procedures

Date	Item
Briefing Session	Venue: Convention Centre, Rooms 3 & 4, Macao Science Center Date: Sunday, 27 July 2025 Time: 11:00–12:00 Registration Link: <a href="https://forms.gle/NppKiccZ8nYtzjMJA">https://forms.gle/NppKiccZ8nYtzjMJA</a>
Registration	Period: Sunday, 27 July to Wednesday, 15 October 2025 Registration Link: <a href="https://forms.gle/p3YALtpo6yxQCEcq9">https://forms.gle/p3YALtpo6yxQCEcq9</a>
Design Competition Workshop (Preliminary Round)	Target Participants: Registered team members (maximum of 2 per team) or advisors Registration Link: To be announced
	Modules: <ul style="list-style-type: none"> <li>• Module 1: Physical Disabilities</li> <li>• Module 2: Visual Impairments</li> <li>• Module 3: Dementia</li> </ul> Date: Saturday, 11 October 2025 Time: 14:00–17:00 Venue: Exhibition Gallery 5, Macao Science Center Participant Limit: 30 persons

	<p>Workshop 2: Visits to Elderly and Rehabilitation Facilities</p> <p>Activity 1: Visit to Complexo de Serviços de Apoio ao Cidadão Sénior "Retribuição"</p> <p>Date: Saturday, 18 October 2025</p> <p>Time: 14:30–15:30,16:00–17:00</p> <p>Venue: Avenida de Vale das Borboletas de Seac Pai Van, Edifício de Serviços Sociais e de Saúde de Seac Pai Van, R/C e 6.o andar ao 9.o andar, Coloane</p> <p>Participant Limit: 30 persons</p> <p>Activity 2: Visit to the Macao Assistive Technology Resource Centre</p> <p>Date: Saturday, 18 October 2025</p> <p>Time: 14:30–17:00</p> <p>Venue: Unit C1, 1st Floor, Edifício Mong Tak, Public Housing Complex of Mong Ha, Rua de Francisco Xavier Pereira, Macao</p> <p>Participant Limit: 30 persons</p> <p>Participants may also call (853) 2825 2692 to schedule a visit and learn more about the currently available assistive devices.</p>
<p>Preliminary Submission</p>	<p>Submission Requirements</p> <ol style="list-style-type: none"> <li>1. Submit a Proposal Document consisting of 2,500 to 5,000 words (in PDF format, file size not exceeding 10MB).</li> <li>2. The Proposal Document may be submitted in Chinese or English.</li> <li>3. The proposal must include the following sections: <ol style="list-style-type: none"> <li>a) Executive Summary</li> <li>b) Application Scenario</li> <li>c) Project Design</li> <li>d) Key Innovations</li> <li>e) Benefits to the Target Community</li> <li>f) Expected Outcomes</li> </ol> </li> <li>4. File Naming Format: Proposal_[School Name]/[Team Name]  <i>&lt;br&gt;Example: Proposal[Macao Science Secondary School]_[Senior Guardian Star]</i> </li> </ol> <p>Report submission: Upload report file to a cloud storage server and send the download link to <a href="mailto:multimedia@msc.org.mo">multimedia@msc.org.mo</a></p>

Announcement of Finalists	<p>Content:</p> <p>The top 10 entries from each division will be selected for the final round.</p> <p>Announcement: To be published on the websites of the Social Welfare Bureau and the Macao Science Center.</p>
Training Programme (Final Round Phase)	<p>Registration Period: Thursday, 15 January to Friday, 30 January 2026</p> <p>Target Participants: Advisors of teams entering the final round</p> <p>Registration Link: To be announced</p> <p>Remarks: Advisors who complete the training will receive a Teacher Training Certificate (Category II)</p>
	<p>Training Session 1: Dr. Tong Hoi I</p> <p>Topic: Overview of Movement Disorders in the Elderly and Persons with Disabilities</p> <p>Date / Time: (tentative, to be announced)</p> <ul style="list-style-type: none"> <li>• Saturday, 7 February 2026, 09:30–12:30 [Senior Secondary Division]</li> <li>• Saturday, 7 February 2026, 14:30–17:30 [Junior Secondary Division]</li> </ul> <p>Venue: FABLAB, Exhibition Centre Lobby, Macao Science Center</p>
	<p>Training Session 2: Dr. Miu Ka Wa</p> <p>Topic: Technology-Enhanced Mobility Support for the Elderly and Persons with Disabilities: Applications of Smart Assistive Devices</p> <p>Date / Time: (tentative, to be announced)</p> <ul style="list-style-type: none"> <li>• Saturday, 28 February 2026, 09:30–12:30 [Senior Secondary Division]</li> <li>• Saturday, 7 March 2026, 09:30–12:30 [Junior Secondary Division]</li> </ul> <p>Venue: FABLAB, Exhibition Centre Lobby, Macao Science Center</p>
	<p>Training Session 3: Dr. Lui Hin Iú</p> <p>Topics: (tentative, to be announced)</p> <ol style="list-style-type: none"> <li>1. Introduction to Rehabilitation and Assistive Device Design</li> <li>2. Functional Mobility Assessment (Demonstration)</li> </ol> <p>Date / Time:</p> <ul style="list-style-type: none"> <li>• Saturday, 28 February 2026, 14:30–17:30 [Senior Secondary Division] – <i>Introduction to Rehabilitation and Assistive Device Design</i></li> <li>• Saturday, 7 March 2026, 14:30–17:30 [Junior Secondary Division] – <i>Introduction to Rehabilitation and Assistive Device Design</i></li> <li>• Saturday, 21 March 2026, 09:30–12:30 [Senior Secondary Division – Group A] – <i>Functional Mobility Assessment (Demonstration)</i></li> <li>• Saturday, 21 March 2026, 14:30–17:30 [Senior Secondary Division – Group B] – <i>Functional Mobility Assessment (Demonstration)</i></li> <li>• Saturday, 28 March 2026, 09:30–12:30 [Junior Secondary Division –</li> </ul>

	<p>Group A] – <i>Functional Mobility Assessment (Demonstration)</i></p> <ul style="list-style-type: none"> <li>• Saturday, 28 March 2026, 14:30–17:30 [Junior Secondary Division – Group B] – <i>Functional Mobility Assessment (Demonstration)</i></li> </ul> <p>Participant Limit:</p> <p>Maximum of 25 participants per session for the <i>Functional Mobility Assessment (Demonstration)</i></p> <p>(two sessions each for junior and senior secondary divisions)</p> <p>Venues:</p> <p>FABLAB, Exhibition Centre Lobby, Macao Science Center</p> <p>Government Elderly Housing Complex</p>
Final Submission	<p>Final Submission Requirements</p> <ol style="list-style-type: none"> <li>1. Selected teams must produce a physical model based on their submitted proposal during the submission period. There are no restrictions on the materials used. (Models will be collected by the organiser one day before the final, and displayed on a foldable rectangular conference table measuring 1200 × 600 mm.)</li> <li>2. Submit a Report consisting of 3,000 to 5,000 words (in PDF format, file size not exceeding 10MB).</li> <li>3. The Report may be submitted in Chinese or English.</li> <li>4. The Report must include the following sections: <ol style="list-style-type: none"> <li>a) Executive Summary</li> <li>b) Technical Details</li> <li>c) User Testing Analysis</li> <li>d) Applicability to the Target Community</li> <li>e) Implementation Process</li> <li>f) Outcome Presentation (including photos of the model)</li> <li>g) Appendix (including but not limited to data validation (if any), market research)</li> </ol> </li> <li>5. Submit one electronic file of a Scientific Poster (A1 size: 594 × 841 mm).</li> <li>6. File Naming Format: <ul style="list-style-type: none"> <li>○ Report_[School Name]_[Team Name]</li> <li>○ Poster_[School Name]_[Team Name]</li> </ul> <p>Examples:</p> <ul style="list-style-type: none"> <li>○ Report_[Macao Science Secondary School]_[Senior Guardian Star]</li> <li>○ Poster_[Macao Science Secondary School]_[Senior Guardian Star]</li> </ul> </li> </ol>

	<p>Report submission: Upload report file to a cloud storage server and send the download link to multimedia@msc.org.mo</p>
<p>Final Competition and Awards Ceremony</p>	<p>Final Competition and Awards Ceremony</p> <p>Date: Sunday, 14 June 2026</p> <p>Time: 10:00–15:00 (Judging); 15:30–17:00 (Awards Ceremony)</p> <p>Venue: Conference Rooms 3 &amp; 4 and Auditorium, Convention Centre, Macao Science Center</p> <p>Details:</p> <ol style="list-style-type: none"> <li>1. On the day prior to the final, teams must bring their models and scientific posters to the venue for booth setup.</li> <li>2. During the judging session, all team members must remain at their booth to present and explain their work to the public and the judging panel.</li> <li>3. Presentations may be supported with visual aids such as slideshows or videos.</li> <li>4. If a team member is unable to attend due to special circumstances, a request must be submitted to the organiser. Substitutions with other individuals are not permitted.</li> <li>5. Judging will consist of 80% by the professional panel and 20% by public vote. Outstanding entries in each division will be selected accordingly. In addition, a special “Most Popular Award” will be presented to the team with the highest public vote.</li> <li>6. The awards ceremony will be held on the same afternoon, with invited guests, all participating students, and their advisors in attendance.</li> <li>7. To ensure easy identification, it is recommended that team members wear school uniforms during the exhibition.</li> </ol>
<p>Exhibition of Award-winning Entries</p>	<p>Exhibition of Award-winning Entries</p> <p>Period: July to September 2026</p> <p>Venue: Gallery 11, Exhibition Centre, Macao Science Center</p> <p>Period: October to December 2026 (tentative, to be announced)</p> <p>Venue: Service locations of the Social Welfare Bureau (tentative, to be announced)</p>



	<p>Details:</p> <ol style="list-style-type: none"> <li>1. Outstanding entries from each division will be selected for public display as part of the exhibition.</li> <li>2. A maximum of four touring exhibitions will be organised. Each team will be responsible for the setup and dismantling of their own exhibit.</li> <li>3. Award recipients are obligated to cooperate with the organiser and make necessary improvements or modifications to their model design as requested.</li> <li>4. All models should be free of sharp edges or pointed components to ensure public safety.</li> </ol>
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## Other Regulations

1. The content of all entries must be appropriate and must not involve pornography, violence, or any elements that contravene relevant laws and regulations of the Macao SAR.
2. Each entry must include a brief description in both **Chinese and English**.
3. All entries must be **original, unpublished, not previously awarded, and not adopted by any other organisations**. Otherwise, participants shall bear full legal responsibility for any resulting consequences, and the organiser reserves the right to disqualify the participant and reclaim any awards granted.
4. Entries must not contain copyrighted materials—such as animations, photographs, images, or music—that do not belong to the participants. If such materials are used, sources must be clearly indicated at the end of the entry, and a list of references must be submitted to the organiser upon submission.
5. Participants must comply with the **Personal Data Protection Act**. In particular, if an entry includes any individual's voice or image, prior consent must be obtained (with the exception of non-identifiable persons in public street scenes).
6. All entries, whether awarded or not, will not be returned. The intellectual property and copyrights of the entries shall be unconditionally transferred to the organiser.
7. The copyrights of the awarded entries, as well as all derived benefits and rights, shall belong to the organiser.
8. Award recipients are required to cooperate with the organiser to make necessary improvements or modifications to their entries upon request. If participants do not wish to modify their entries, they must indicate this on the registration form.

9. The organiser reserves the right to use any submitted entry for **promotion, publicity, or event-related purposes**, without prior notice or compensation.
10. Upon completion of the registration process, all registrants will be deemed to have agreed to the competition regulations and the final results.
11. If any entry is deemed below standard by the judging panel, the organiser reserves the right to withhold the corresponding award.

### Judging Panel

The judging panel will consist of representatives of the organiser and professionals or scholars from relevant fields. The rankings will be determined based on the judging panel's scores. Awards may be withheld at the discretion of the judging panel.

### Assessment Criteria

#### Preliminary Round Evaluation Criteria

Evaluation Dimension	Weight	Assessment Details
<b>Innovation</b>	30%	Whether the design breaks through the limitations of existing mobility aids and presents unique solutions.
<b>Practicality</b>	25%	Whether it meets the actual needs of elderly persons and persons with disabilities; whether it is intuitive and easy to use.
<b>Feasibility</b>	20%	Technical complexity, cost-effectiveness, and potential for future mass production.
<b>Safety</b>	15%	Whether the design avoids potential hazards (e.g. sharp edges, unstable structure, unsafe materials, etc.).
<b>Proposal Completeness</b>	10%	Whether the proposal is logically structured and includes a complete design process and expected benefits.

### Assessment Criteria

#### Final Round Evaluation Criteria

Evaluation Dimension	Weight	Assessment Details
<b>Model Completion</b>	25%	Whether the model fully demonstrates the design's intended functions and passes basic testing.

<b>Evaluation Dimension</b>	<b>Weight</b>	<b>Assessment Details</b>
<b>User Experience</b>	20%	Whether it aligns with the usage habits of elderly persons and persons with disabilities, supports personalisation, and is easy to operate and durable.
<b>Aesthetics and Ergonomics</b>	20%	Whether the design is visually appealing, ergonomically sound, and considers user comfort.
<b>Technical Depth</b>	20%	Whether the technological application is stable, respects user privacy, and has potential for patentability.
<b>Presentation and Explanation</b>	15%	Effectiveness of information conveyed through the scientific poster and clarity of on-site explanation.

### **Award Distribution**

Prizes and awards will be issued after the awarded entries have been revised or improved as required.

### **Disclaimer**

1. Entries that do not comply with the regulations set out in this guideline will not be reviewed by the judging panel, and the organiser will not issue individual notifications to the concerned teams.
2. The organiser shall not be held responsible for any damage, loss, incompleteness, illegibility, delays, or undelivered correspondence that is not caused by its own negligence, nor will it issue individual notifications in such cases.
3. The organiser reserves the right to terminate the competition, amend the regulations, or disqualify any participant for misconduct.
4. In the event of any dispute, the organiser reserves the right of final decision. In case of discrepancies between the Chinese, Portuguese and English versions of the guidelines, the **Chinese version shall prevail.**

### **Contact and Enquiries**

1. For enquiries, please contact Ms. Wan at (853) 8795 7245 or Ms. Lam at (853) 8795 7249, or email: **multimedia@msc.org.mo**
2. All personal data collected will be used solely for purposes related to this competition and will be destroyed after the event concludes.