2026 KidWind 風力能源亞洲聯賽暨分區預賽
競賽辦法

2026 KidWind Challenge in Asia and Regional Preliminaries
Competition Regulations

台灣參賽者版本 · Taiwan Participants' Edition

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亞太能源科學教育協會 Asia-Pacific Energy & Science Education Association (AESEA)

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壹、前言

為因應全球氣候變遷所致環境惡化及能源短缺問題，各國政府相繼提出改善措施。我國政府亦積極推動新能源政策；為達成能源轉型目標，除應自技術發展與產業轉型著手外，全民化且本土化之能源教育尤屬刻不容緩。政府須正確教育民眾認識臺灣之能源處境與環境挑戰，進而凝聚全民共識，促進能源永續發展。臺灣因天然能源匱乏，能源科技發展所面臨之挑戰，較其他國家更為嚴峻。

在美國，非營利組織 KidWind 十五年來透過課程、教材與競賽，向全世界傳達再生能源知識。「KidWind Challenge」以國際競賽形式，聚焦於國小、國中至高中跨階段之主題式能源教育。透過國際競賽之互動及賽前種子教師訓練，將教育理念與情境脈絡以系統化學習方式由教師導入校園，引導學生培養對能源科技之興趣，並於面對問題時反思應變、探究解方，進而實踐於生活之中。

民國 114（2025）年，在政府、產業與學術界共同支持下，第六屆 KidWind 風力能源亞洲聯賽於 11 月 1 日至 2 日假國立臺灣師範大學公館校區中正堂順利舉辦，匯聚來自臺灣與泰國、自國小至高中職近百支菁英隊伍同場競技。為與國際接軌，決賽增設中低速與中高速兩座風洞，考驗學生於不同風速環境下調整風機之綜合能力。經濟部能源署、環境部氣候變遷署等首長，及哥本哈根基礎建設基金（CIP）颯妙離岸風場、森崴能源、翰可能源等產業夥伴齊聚共襄盛舉；高中職組與國中小組金獎分別由臺中高工及社寮國中代表隊奪得，泰國隊伍亦於兩組賽事中斬獲銀獎、銅獎及最佳設計獎，充分展現賽事之國際交流水準。

前開亞洲聯賽之晉級隊伍代表臺灣參加 2026 年美國 KidWind 風力能源世界賽，於來自各國之 125 支隊伍、550 名選手中，勇奪 4 項世界冠軍，並囊括評審團獎、KidWind 精神獎、葉片工程獎等 3 項特別獎，約占全部冠軍獎項之三分之一，成績斐然。臺灣代表隊並獲總統、副總統賀電，行政院長亦於行政院親自接見表揚，獲得教師、學生及社會各界熱烈迴響。

本（2026）年第七屆賽事持續辦理。本屆亞洲聯賽訂於 12 月舉行，將有泰國、日本、馬來西亞、菲律賓、越南等國與我國隊伍同場競技，匯聚六國共赴賽場；主辦單位並將逐步完善風電教學之認證機制，推動「KidWind 學生綠能科技認證」與國內綠能產業人才能力鑑定接軌。期望學生結合所學知識與風力能源探究，於賽場上展現創意、深化能源素養，促進多元智能教育，並透過實作激發創新，落實綠色能源與教育目標。

貳、辦理單位

一、 指導單位

（一） 北區：新北市政府教育局。

（二） 南區：高雄市政府教育局(暫定)。

（三） 中區：臺中市政府教育局(暫定)

（四） 亞洲聯賽：教育部、經濟部能源署。

二、 主辦單位

（一） 北區：新北市政府教育局永續環境教育中心、亞太能源科學教育協會。

（二） 中區：國立自然科學博物館、育達科技大學、亞太能源科學教育協會。

（三） 南區：中華民國陸軍軍官學校、亞太能源科學教育協會。

（四） 亞洲聯賽：育達科技大學、亞太能源科學教育協會。

三、 **協辦單位**

KidWind、Vernier Science Education、育達科技大學智慧機電工程與應用系、台北市電器商業同業公會、社團法人臺北市新匠堂公益協會。

四、 **贊助單位**

Copenhagen Infrastructure Partners、淇妙離岸風力發電股份有限公司、財團法人奇鋐文教基金會、廣天國際有限公司、翰可能源股份有限公司、中華路影音街。

參、參賽對象與組別

本競賽分為下列三組，每隊均由四名隊員組成：

組別	本地隊伍（依年級）	國際隊伍（依出生年；適用亞洲聯賽）
國小組	國小四年級至六年級（GRADE 4–6）	9 至 12 歲（2014/1/1 至 2016/12/31 出生）
國中組	國中一年級至三年級（GRADE 7–9）	12 至 15 歲（2011/1/1 至 2013/12/31 出生）
高中職組	高中（職）一年級至三年級（GRADE 10–12）	15 至 18 歲（2008/1/1 至 2010/12/31 出生）

本地隊伍之參賽資格，以中華民國 115 年 1 月仍在學者（含應屆畢業生）為限。

國際隊伍之年齡，以前項出生年區間認定之。

肆、報名方式

一、 報名應依競賽組別為之。每隊應推選隊長一名，作為該隊與大會間之主要聯絡人及競賽相關事務之代表人；於風洞量測時，該次測試是否進行（包括開始數據採集或放棄該次測試）等事項，應由隊長為最終決定。隊長因故不能行使前開職務時，應由該隊事先指定之代理人代行之。

二、 報名及繳費一律採網路辦理，並透過 RegMaster 線上報名暨付款機制完成，不受理銀行轉帳。報名期間自公告之日起至 2026 年 10 月 2 日（星期五）17:30 止；費用應於前開期限前於線上完成繳納，逾期未完成繳費者，視為未完成報名。報名及繳費完成後，主辦單位將自 2026 年 8 月 1 日起依完成報名之先後順序，陸續寄送發電機與工程筆記本。

三、 **報名網址：**https://regmaster-pro.web.app/events/detail.html?id=CHD8XFK

四、 **組隊方式：**

1. **學校推薦：**每隊由同校學生四名組成一隊，並須由該校現職教師一名擔任指導老師。得跨區報名，惟以北、中、南擇一區報名為限。
2. **個人組隊：**每隊由非同校學生四名組成一隊，並須由學校教師或家長一名擔任指導老師。得跨區報名，惟以北、中、南擇一區報名為限。
3. 學校推薦報名隊伍，每校至多三隊；個人跨校組隊者，得擇一校方代表報名，其隊數不受前開限制。同一指導老師得重複指導多隊。

五、 **報名費用與保證金：**

1. 基於競賽公平原則，除發電機（圖 A）由大會統一提供外，其餘材料概由參賽隊伍自製。
2. 參賽隊伍無須支付任何材料費用。為確保競賽資源妥善利用，每隊於報名時應繳納新臺幣貳仟元（NT$2,000）作為保證金。凡全程參與活動（含閉幕頒獎典禮）之隊伍，其保證金於活動結束後，依原線上付款管道全額退還。
3. 第一階段（分區預賽）之保證金已含比賽專用發電機一組、選手午餐、工程筆記本一本及活動保險。未晉級之隊伍如全程參與分區預賽（含閉幕頒獎典禮），其保證金於該區預賽結束後，依原線上付款管道退還。
4. 第二階段（亞洲聯賽）：自分區預賽晉級之隊伍無須繳納任何額外費用，並於亞洲聯賽當日獲提供選手午餐及活動保險；其保證金於亞洲聯賽結束後（含閉幕頒獎典禮），依原線上付款管道退還。
5. 發電機應妥善保管。每組發電機於寄出前均經檢測正常，如有功能不良情形，應於到貨七日內，出示保固貼紙證明申請更換，逾期不予受理。比賽時如因人為因素致無法量測數據，其結果應由該隊自行負責。

圖 A　發電機（規格詳見附錄一）

六、 **洽詢方式：**

1. 電子郵件：aesea.kidwind@gmail.com。
2. 電話專線：02-2382-2027 分機 14（服務時間：週一至週五 10:00–18:00，龔小姐）。
3. 協會網頁：亞太能源科學教育協會（http://www.aesea.org）。

伍、重要時程與地點

一、 **競賽報名截止：**2026 年 10 月 2 日（星期五）17:30。

二、 **隊員及指導老師變更截止：**同報名截止日（2026 年 10 月 2 日 17:30）。報名截止後，隊員及指導老師均不得異動（不可抗力情形除外，詳見「玖、注意事項」）。

三、 **競賽地點及日期：**

賽事	日期	組別	活動地點
南區預賽	10/17（六）	國小組、國中組、高中職組	陸軍軍官學校（830 高雄市鳳山區維武路 1 號）
北區預賽	10/28（三）	國小組、國中組、高中職組	新北市政府 6 樓（220 新北市板橋區中山路一段 161 號 6 樓）
中區預賽	11/1（日）	國小組、國中組、高中職組	國立自然科學博物館（404 臺中市北區館前路 1 號）

賽事	日期	組別	活動地點
亞洲聯賽	12/12（六）	高中職組	育達科技大學（361 苗栗縣造橋鄉談文村學府路 168 號）
亞洲聯賽	12/13（日）	國小組、國中組	

四、 **競賽流程：**

報名完成 → 分區預賽（北、中、南三選一） → 亞洲聯賽

圖 B 簡易競賽流程圖

陸、競賽活動內容

一、 報名隊伍應參加北、中、南三場分區預賽其中一場，並成為該區各組前十五名，且完成亞洲聯賽報名手續者，始得參加亞洲聯賽。

二、 報名隊伍不受地理位置限制，得任選三場分區預賽其中一場報名。

三、 分區預賽晉級隊伍，將於亞洲聯賽中與國際隊伍同場競技。

四、 分區預賽與亞洲聯賽之官方語言為中文及英文。隊員間得使用任何語言交流；惟所提交之工程筆記本、海報、簡報等文件，及回覆評審與裁判時，應使用中文或英文。

五、 各分區（北、中、南）各組隊伍上限如下表；各區各組報名額滿為止：

國小組	國中組	高中職組
30 隊	30 隊	30 隊

六、 **分區預賽賽程時間（僅供參考，依現場實際情況調整）：**

時間	項目
08:00–08:30	選手報到
08:30–09:00	開幕典禮
09:00–15:00	開放量測時間
15:00–15:30	成績統計及公布
15:30–16:00	頒獎及閉幕典禮

＊便當預計 11:30~12:00 左右送達會場並陸續發放，發放後各隊伍自行找空檔用餐。

七、 **亞洲聯賽賽程：**本競賽分二日進行，第一天（12 月 12 日，星期六）為高中職組，第二天（12 月 13 日，星期日）為國中組及國小組。各日賽程如下（每日均適用，僅供參考，依現場實際情況調整）：

時間	項目
08:00–08:30	選手報到

時間	項目
08:30–09:30	開幕典禮
09:30–15:30	開放量測時間（風洞 A／B）／評審評分各隊簡報
15:30–16:30	風能知識線上測驗（每隊一份，限 30 分鐘）
16:30–17:00	成績統計及公布
17:00–18:00	頒獎及閉幕典禮

＊便當預計 11:30~12:00 左右送達會場並陸續發放，發放後各隊伍自行找空檔用餐。

柒、競賽評選辦法

一、 **分區預賽評選方式：**詳見附錄二。

二、 **亞洲聯賽評選方式：**詳見附錄三。

三、 **亞洲聯賽競賽評審：**

1. **評審標的：**電能產出、實作作品、工程筆記、現場簡報表現及風能知識考核成績（說明詳見附錄三、附錄四、附錄五）。
2. **評審方式：**詳見附錄三「亞洲聯賽成績計算方式」。
3. **評審遴選：**主辦單位將聘請相關領域之學者專家擔任專家評審，就參賽者之作品說明（含應用原理審查）、現場簡報及工程筆記進行評分，各評分項目比重詳見附錄三。
4. 晉級隊伍應於亞洲聯賽前完成工程筆記，並於競賽當日報到時繳交；現場海報尺寸不拘（最大 A0），實作作品應攜至競賽場地展示與說明。

四、 **頒獎典禮及展示：**

1. 競賽結束後當場統計公告得獎名單，頒獎典禮於賽事結束當日在各競賽場地舉行。
2. 得獎隊伍應配合主辦單位提供之展示資訊辦理作品展示。

捌、競賽獎項

一、 凡全程完成（含參加閉幕典禮）競賽（分區預賽或亞洲聯賽）之隊員，均得申請參賽證書。

二、 凡全程完成競賽（含分區預賽、亞洲聯賽及閉幕典禮）且參賽期間未異動指導老師之隊伍，其指導老師由主辦單位於競賽當日頒發感謝狀以資表揚。

三、 各項獎項按組別（國小組、國中組、高中職組）分別評定，各組獎項相互獨立。

四、 **分區預賽獎項（各區、各組分別頒發，前 15 名含晉級證書乙紙）：**

獎項	名額（每組）	獎狀核發單位
金牌獎	1 組	北區：亞太能源科學教育協會(AESEA) 中區：臺中市政府教育局(暫定) 南區：高雄市政府教育局(暫定)
銀牌獎	1 組	同上（按報名分區核發）
銅牌獎	1 組	同上（按報名分區核發）

獎項	名額（每組）	獎狀核發單位
優勝	5 組	同上（按報名分區核發）

五、 **亞洲聯賽獎項（各組分別頒發，獎狀均為 KidWind 風能競賽國際獎狀乙紙）：**

獎項	名額（每組）	獎勵內容
金牌獎	1 組	國際獎狀、獎盃乙座、獎金新臺幣 10,000 元
銀牌獎	2 組	國際獎狀、獎盃乙座、獎金新臺幣 6,000 元
銅牌獎	3 組	國際獎狀、獎盃乙座、獎金新臺幣 3,000 元
優勝	5 組	國際獎狀
新秀獎	1 組	國際獎狀
評審團獎	1 組	國際獎狀
工程筆記本獎	1 組	國際獎狀

（金、銀、銅及優勝之名額依上表各組辦理；新秀獎、評審團獎及工程筆記本獎等特別獎，則每組各一。工程筆記本獎由評審團就各隊工程筆記本評分結果擇最優者頒予。）

六、 前二項獎勵名額，得視參賽隊伍數及成績酌予調整；參賽作品未達水準時，獎勵名額得從缺。

七、 **世界賽參賽資格：**

1. 亞洲聯賽國小組、國中組、高中職組，依各組最終排名分別取得參加 KidWind 世界賽之資格名額三名。
2. 獲資格之隊伍僅取得參賽資格；其出國比賽所衍生之旅費、食宿、保險及其他相關費用，概由參賽隊伍自行負擔，主辦單位不予補助。
3. 資格依各組排名自第一名起依序分配；經分配之隊伍如因故無法參加，由次一名次之隊伍依序遞補。
4. 世界賽倘因不可抗力或其他事由致未能如期舉辦者，獲資格隊伍之資格得予保留，保留期間以一年（即至次一年度之世界賽）為限；屆期仍未舉辦或仍未參加者，其資格即告失效，參賽隊伍不得就此請求補償、延長或為其他主張。

八、 亞洲聯賽獎項如有新增，將於比賽前另行公布。

玖、注意事項

一、 **智慧財產權保證與責任：**參賽隊伍應保證其參賽作品為原創，無抄襲、仿冒情事。如因抄襲、研究成果不實或以其他類似方法侵害他人智慧財產權而涉訟者，參賽人應自行解決與他人間之一切智慧財產權糾紛並負擔相關法律責任，主辦單位概不負任何法律責任。得獎作品經證實違反前開規定，或因涉訟而敗訴者，主辦單位有權取消其參賽資格、撤銷已頒發之獎項，並追回獎金及獎狀。

二、 隊伍名稱不得含有低俗、色情、恐怖、暴力、賭博、政治、種族歧視等內容或其諧音，應使用文明用語並保持簡潔（中文不得超過 10 字，英文不得超過 20 字元），且應具原創性。隊伍名稱須經主辦單位審核；如不符規定，主辦單位有權要求修改或駁回。

三、 有下列情形之一者，一律取消參賽資格：

1. 每人限報名一隊；經查獲同一學生同時報名（參與多隊）者。

2. 隊員未遵守競賽相關規定，經勸導仍未改善者。

3. 作品使用對人體有害物質，或易產生氣爆、火花等有安全疑慮之材料或器材者。

4. 應繳之相關資料延遲或未交件者。

5. 參賽人員未到齊者。

6. 得獎作品經證實違反規定，或因涉訟而敗訴者。

四、 參賽人員應攜帶學生證、健保卡、護照、身分證或其他政府機關核發之附照片證件之一以備查驗。

五、 **爭議處理：**競賽期間如有競賽相關爭議，應由參賽隊伍於當天以書面正式向大會提出，屬競賽規則範圍者交由裁判團統一審定，並由裁判長裁決；涉及法律事項者，由當事人另循法律途徑依法辦理。

六、 **成績申覆：**各場比賽成績公布後，對成績有異議者，應於公布後一小時內向主辦單位工作人員提出申覆；逾一小時或離開會場者，視同同意主辦單位公布之成績。

七、 **隊員及指導老師之異動：**報名截止日（2026 年 10 月 2 日 17:30）後，隊員及指導老師均不得異動。惟自報名截止後至競賽當天報到截止前，如有不可抗力因素（應於競賽時間結束前提出完整書面佐證資料，並填具附錄六之切結書）者，經大會裁判會議同意，完成更換並完成報到後，全隊始保有獲獎資格；前開不可抗力換員之例外，僅適用於分區預賽階段，已晉級亞洲聯賽之隊伍，其隊員一律不得更換。

八、 分區預賽獎狀自寄出日起算（以郵戳為憑），如登載資訊有誤，得於寄出日起七日內申請更換，逾期不予受理。

九、 亞洲聯賽獎狀於當天頒發後，如登載資訊有誤，得於頒發後一小時內申請更換，逾一小時或離開會場者，不予受理。

十、 基於非營利、推廣及提供學校教學使用之目的，參賽作品如獲獎，應授權主辦單位及其指定之第三人，無償、不限時間、不限次數，以微縮、光碟、數位化或其他方式（包括但不限於重製、散布、發行、公開展示、公開播送、公開傳輸）利用其得獎作品及工程筆記；參賽隊伍同意不對主辦單位及其指定之第三人行使智慧財產人格權（包括專利及著作人格權）。

十一、 參賽作品之智慧財產權歸屬參賽者所有；其著作授權、專利申請、技術移轉及權益分配等相關事宜，應依相關法令辦理。

十二、 得獎隊伍取得之獎金，應依中華民國稅法繳納相關所得稅。

十三、 如有未盡事宜，視當時狀況共同商議之。

十四、 凡完成報名者，視為已閱讀並完全同意遵守本辦法之一切規定。

拾、表格及文件

附錄一　通用競賽規則（分區預賽與亞洲聯賽共通規定）

附錄二　分區預賽競賽規則（差異規定）

附錄三　亞洲聯賽競賽規則（差異規定）

附錄四　電能量測說明

附錄五　工程筆記說明

附錄六　競賽當日不可抗力切結書

附錄七　轉區賽切結書

附錄八　退賽切結書

附錄九　常見問題（FAQ）

附錄一　通用競賽規則（分區預賽與亞洲聯賽共通規定）

本附錄所列規定，於分區預賽及亞洲聯賽均一體適用。分區預賽之差異規定詳見附錄二，亞洲聯賽之差異規定詳見附錄三；如附錄二、附錄三另有規定者，從其規定。

一、競賽組織

（一）**裁判團：**由裁判長一名及助理裁判數名組成，負責解釋規則、判斷參賽隊伍是否符合資格，並確實執行渦輪機量測之各項安全規範與競賽規則。

（二）**行政團隊：**負責確保競賽正常運作，包含報到與人員管制等行政事務。

（亞洲聯賽另設競賽執行長、專家評審委員會，其組織詳見附錄三。）

二、使用器材說明

（一）需使用風力渦輪機者，限使用大會指定之發電機一顆。發電機上貼有辨識貼紙，應保護其完整，並於組裝時明顯露出以供檢驗；無法檢驗時，該隊應於第二回合結束時立即拆卸或去除阻擋物以供檢驗，檢驗未通過者，立即取消參賽資格。

（二）除規則另有規定外，參賽隊伍如未使用前開指定發電機，主辦單位有權取消其參賽資格。

（三）風力渦輪機應預先製作。參賽隊伍須自備製作修整所需文具器材，例如美工刀、切割墊、剪刀、AB 膠或三秒膠（以快乾黏著劑為必要選項）、鉛筆、直尺、圓規、量角器、砂紙等，以利裁切、黏合巴爾沙木或其他器材。

（四）參賽隊伍進場時應自行斟酌所需之備用文具器材（如黏著劑）。

（五）現場設有數量有限之電源區供選手使用，惟工具須自備。

（六）除指定要項外，其他材料不拘；設計作品應符合規範尺寸並可完全置入競賽風洞內測試，始得參賽（各場風洞之尺寸與座數詳見附錄二、附錄三）。

（七）參賽隊伍應自備護目鏡（個人用品大會不提供），每位成員須全程配戴；經裁判提醒仍屢勸不聽者，取消參賽資格。

三、風力渦輪機設計通則

（一）每隊應擁有自己之發電機、渦輪機、葉片及支撐架，不得與其他隊伍共用參賽。

（二）渦輪機設計無預算限制，惟應有效且經濟地運用資源，並負責任地使用材料。

（三）於風洞內量測時，僅得使用沙袋或其他重物將渦輪機重壓固定到位；禁止使用任何飛散物及膠帶或黏著劑固定。

（四）能源產出僅得透過風洞內之風力發電；應預留風力渦輪機於風洞中轉動所需之額外空間。

（五）渦輪機得設計為垂直軸或水平軸構建。

（六）風力渦輪機得使用齒輪箱、滑輪系統或類似機構以增加功率輸出，並得使用預製齒輪箱及其他零件；惟嚴格禁止以預先儲存能量等方式提供動能。

（七）不得使用工廠預鑄或現成塑膠射出等市售商品，作為風力渦輪機之葉片或翼型／板材。

（八）風力渦輪機應能獨立自行站立。主辦單位不提供塔架或任何支架。

（九）鋒利金屬物質、有機玻璃及類似刀片材料，因具潛在危險性，嚴格禁止進入風洞；亦嚴禁於風扇葉片組件中使用訂書針、圖釘、釘子等尖銳物。

（十）風力渦輪機所有構件均得使用 3D 列印部件及組件；如使用之，專家評審將確認參賽者完全理解該技術。

（十一）依國際比賽規定，禁止使用導風罩引導風流。如於測試過程中使用導風罩，或使渦輪機任何部分超出風洞之外者，該隊取消資格。

四、量測器材規格

（一）發電機

項目	規格
輸出電壓	0–10 V
輸出電流	0–0.3 A
額定電壓	DC 5.9 V
額定負載	10.0 g·cm
直徑／線長／軸徑	1.25 inch／4 ft／2 mm

性能表現：

性能點	項目	數值
無負載	速度／電流	2000 RPM／0.011 A
失速	扭矩／電流	40 g·cm／0.147 A
最高效率點	效率／速度／扭矩／電流／功率	60.851 %／1569 RPM／8.6 g·cm／0.040 A／0.144 W
最大輸出	速度／扭矩／電流／功率	999 RPM／20 g·cm／0.079 A／0.214 W

發電機為兩階段共用之指定器材；惟風洞之座數、尺寸、風速設定及（亞洲聯賽之）轉盤操作等，因競賽階段而異，分別詳見附錄二（分區預賽）及附錄三（亞洲聯賽）。

（二）可變電阻（威尼爾可變電阻，Vernier Variable Load）

項目	規格
訂購代碼	VES-VL
電阻範圍	2–200 Ω
最大電流	0.3 A
搭配感應器	Go Direct 電能感應器（GDX-NRG）或 Vernier 電能感應器（VES-BTA）
隨附配件	附迷你鱷魚夾絕緣跳線二條、備用 0.375 A 快熔保險絲

操作方式：本器具設兩個旋鈕，最終串聯電阻為兩旋鈕所示數值之和（即旋鈕一＋旋鈕二），可調範圍 2–200 Ω。各隊於每次量測前，應將電阻復原為最小值 2 歐姆（自本屆起配合本型可變電阻，初始值由 6 歐姆調整為 2 歐姆），再由隊員視需要調整。又當電壓與電流接近零時，感應器所顯示之電阻值不具參考意義。

圖 1　威尼爾可變電阻（VES-VL）；最終串聯電阻為兩旋鈕數值之和（2–200 Ω，最大 0.3 A）

（三）電能感應器（Go Direct 電能感應器，GDX-NRG）

競賽以本感應器配合 Vernier 數據分析系統（Graphical Analysis）同時量測電壓、電流、功率與電能，並據以計算 30 秒測試區間內之總電能輸出（單位：焦耳，J）。其規格如下：

項目	規格
訂購代碼	GDX-NRG
量測項目	電壓、電流、功率、電能
電壓輸入範圍	±5 V（內建負載）／±30 V（外部負載）
電流輸入範圍	±0.18 A（內建負載）／±1 A（外部負載）
解析度	電壓 1 mV；電流 40 µA
內建固定負載	30 Ω
輸入阻抗／插入電阻	1 MΩ／1 Ω
連接方式	藍牙 4.2 無線或 USB 有線

圖 2　Go Direct 電能感應器(GDX-NRG)

五、渦輪機測試共通規則

下圖為渦輪機量測之共通流程，並併同標示分區預賽與亞洲聯賽在風洞座數、串聯電阻設定及轉盤操作上之差異；各階段之詳細差異規定，分別詳見附錄二、附錄三。

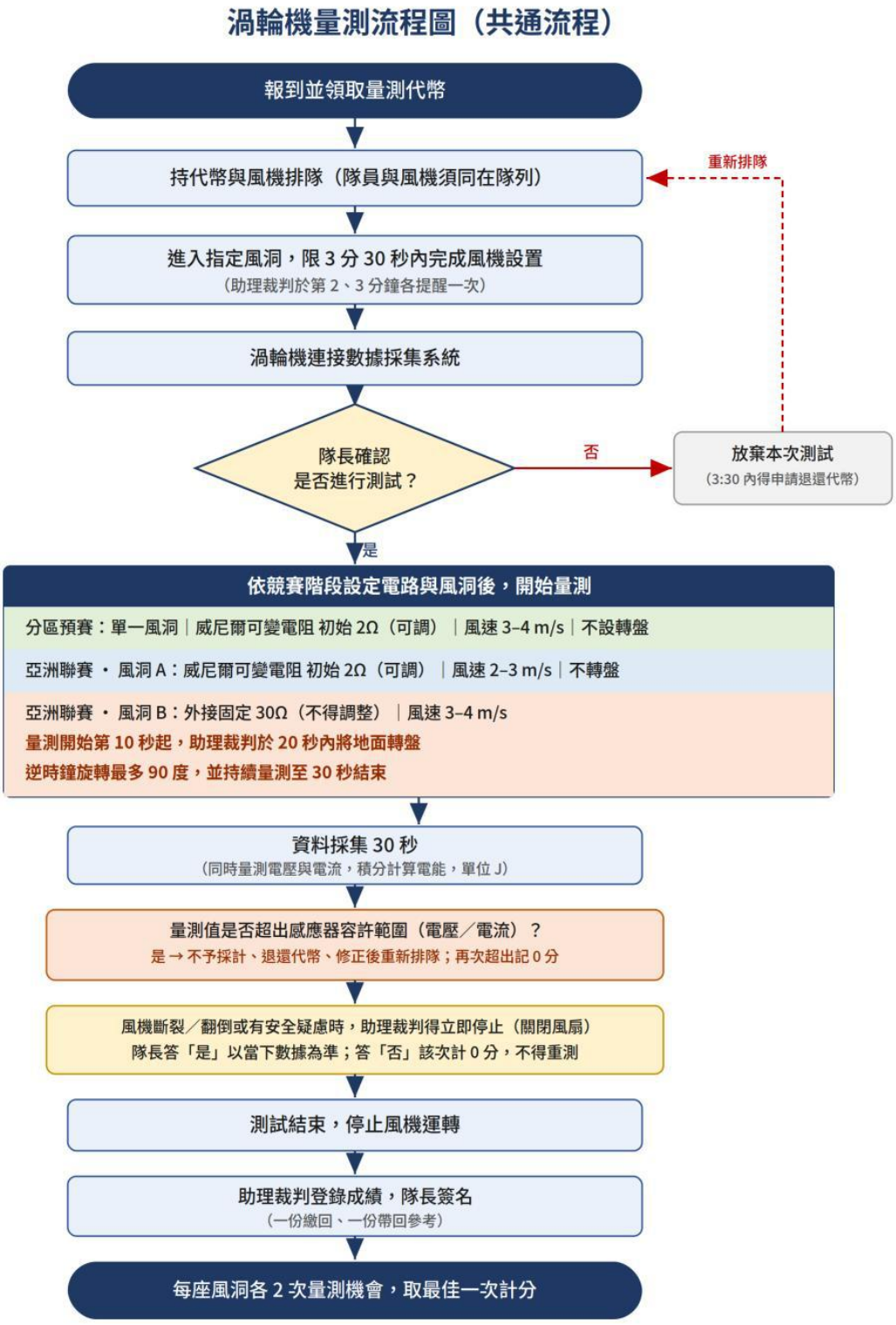


圖 3　渦輪機量測流程圖（共通流程，含分區預賽／亞洲聯賽差異）

（一） 渦輪機測試區設裁判長一名及助理裁判數名。

（二） 各隊於量測時，僅得使用報到時所發放之代幣，且不得超過該隊獲配之代幣總額，嚴禁使用其他隊伍之代幣。如進行超過三次量測，第三次（含）以上之成績不予採計，且已使用之代幣不予退還。（代幣發放數量依場次規定，詳見附錄二、附錄三。）

（三） 風洞量測依隊伍排隊順序進行，參賽隊伍應持代幣於指定風洞開放時間內排隊等候。排隊時須至少一名隊員與該隊風機共同在隊列中，方為有效排隊；風機或排隊隊員全員離開隊列者，視為自動放棄該次排隊權利。

（四） 每場比賽將公告風洞量測之最後排隊截止時間，隊伍應於該截止時間前完成排隊。於截止時間前完成排隊之隊伍，不受風洞開放時間限制，量測將進行至最後一隊完成為止；逾截止時間未排隊或未使用代幣量測者，視為自動放棄該次量測機會，相關代幣隨即作廢，且不得要求補測或任何補償。

（五） 測試開始後，參賽隊伍有三分三十秒於指定風洞內設置風力渦輪機：

1. 助理裁判分別於第二分鐘及第三分鐘時提醒；隊伍應於三分三十秒時開始數據採集，提前完成設定者亦得提前採集。

2. 渦輪機進入風洞並連接數據採集系統後，助理裁判將詢問隊長是否進行測試；隊伍應於三分三十秒內開始或放棄測試。

3. 如隊伍於設置開始後三分三十秒內主動放棄該次測試，得申請退還該次測試所用代幣；欲再次量測者，應重新排隊並遵守排隊規則。

（六） 當風洞正常啟動，風力渦輪機應能於無外力輔助之情況下自行轉動（啟動）並開始發電。

（七） 測試期間風洞持續運行，助理裁判將採集渦輪機運轉三十秒之功率及電能輸出數據；電能輸出以 Vernier 數據分析系統計算，可同時收集電壓與電流讀數。電能量測欄位詳見附錄四。（亞洲聯賽風洞 B 於採集期間另有轉盤旋轉之操作，詳見附錄三第五點。）

（八） 如風力渦輪機於測試開始後發生斷裂、翻倒或其他影響安全之情形，助理裁判得視現場狀況立即停止測試（包含停止風扇運轉）。停止後將詢問隊長是否以當次結果作為正式成績：隊長答「是」者，以停止當下已取得之數據／成績作為該次測試結果；隊長答「否」者，該次測試成績以 0 分計算，且不得重新測試。

（九） 量測值超出量程之處理：量測過程中，如電壓或電流任一之讀數超出電能感應器之容許上限（其電壓與電流上限值依該場次所採負載模式認定，詳見附錄一第四點之感應器規格），該次量測紀錄不予採計，並退還該次代幣，給予該隊返回修正風機之機會一次（修正後須重新排隊）；經修正後再次量測，其電壓或電流之讀數仍超出前開上限者，該次量測成績以零分計算。

（十） 成績採計：每座風洞均有二次測試機會，僅採計二次中之最佳一次作為該風洞之最終得分。

（十一）測試結束後，參賽者應自行停止風機運轉；如需協助，得請助理裁判協助停止。助理裁判於協助停止過程中對風機造成任何損壞者，由該隊自行承擔全部責任。

（十二）完成測試後，由助理裁判依附錄四之欄位確認成績，並提供成績單；經隊長簽名確認後，一份繳回主辦單位存查，一份由隊伍自行留存參考。

六、安全與其他注意事項

（一） 本競賽須使用自備之刀片、剪刀等裁切工具及黏著劑，測試中散落飛射之零件亦具危險性；報名之指導老師、家長及學生應自行衡量能力並注意自身安全。

（二） 每位選手須自備護目鏡並全程配戴，一般眼鏡不得視為護目鏡，違者視同放棄競賽。

（三） 現場須遵守大會人員指示及指定位置、操作方式，否則取消該隊參賽資格。

（四） 選手報到截止後三十分鐘內未完成報到者，該隊視同棄權。

（五） 除不可抗力因素外，比賽當日每隊報到參與競賽人數未達四人時，該隊以棄權論；因不可抗力致隊員無法參加者，應填具附錄六之切結書並經大會裁判會議同意，始得以實際到場人數參賽。

（六） 各隊於量測區之單次測試以三十秒為限，時間到依序由次組測試。

（七） 比賽期間，指導老師及親友均不得進入比賽場地，亦不得以任何方式指導參賽者。

（八） 參賽隊伍應對其風機負完全責任。如因風機轉動或結構不穩導致零件炸裂、飛散或解體，致人員受傷或風洞、場地、設備損壞者，該次量測成績以零分計算，相關損害賠償責任由該隊自行承擔；情節重大或經勸阻不改善者，主辦單位並得取消該隊參賽資格。

（九） 本賽事裁判團對裁決及爭議有最終決定權。

附錄二　分區預賽競賽規則（差異規定）

本附錄為分區預賽相對於附錄一通用規則之差異規定；未列於本附錄者，悉依附錄一辦理。

一、活動名稱

「2026 KidWind 風力能源分區預賽」（以下簡稱本區預賽）。如有未盡事宜，將於競賽網頁及競賽 LINE 社群公布。

二、參賽資格

全國各公私立國小、國中、高中（職）在校學生，符合資格者均得報名組隊。組別依本辦法「參、參賽對象與組別」分為國小組（GRADE 4–6）、國中組（GRADE 7–9）、高中職組（GRADE 10–12），每組四人。其他組隊規定詳見「肆、報名方式」。

三、風洞與器材

（一） 本區預賽設單一風洞，內部空間約 120×120×120 cm，採負壓（吸風）式設計、產生均勻流；風洞平均風速約每秒 3–4 公尺（位於風扇前 30 公分處）。本階段不設轉盤。

（二） 為符合風洞尺寸，風機整體尺寸不得超過 100×100×100 cm，以確保有足夠空間。

（三） 其餘器材、設計通則及安全規定，均依附錄一辦理。

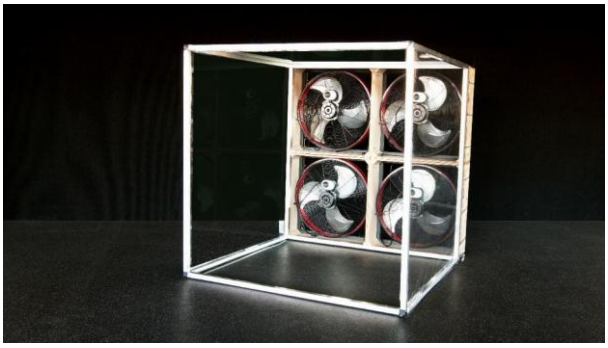


圖 1　分區預賽風洞測試示意圖（單一風洞、不設轉盤）

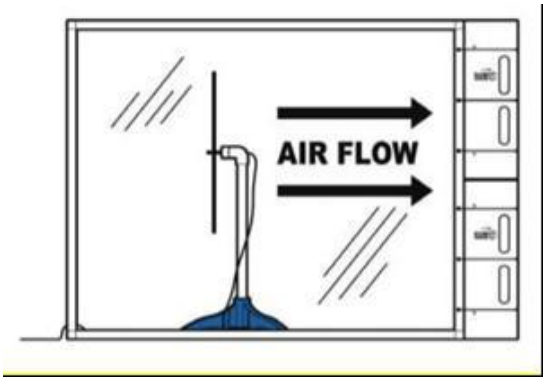


圖 2　風洞內氣流方向示意圖（扇葉擺放方向朝外，比賽過程不另提醒）

四、量測代幣與測試規則

（一） 各隊於報到時獲發量測代幣二枚，每枚授予使用風洞量測一次之權利；每次量測完成後，助理裁判回收代幣一枚。

（二） 測試期間，渦輪機底部電線連接串聯之威尼爾可變電阻（VES-VL）電路，並同時量測電壓與電流。

（三） 所有組別於每次量測前，其威尼爾可變電阻之初始電阻一律復原為最小值 2 歐姆（規格與使用說明詳見附錄一第四點），再由團隊一名成員視需要調整。

（四） 其餘排隊、設置、採集、放棄、成績採計（二次取最佳）等，均依附錄一「五、渦輪機測試共通規則」辦理。

五、分區預賽成績計算方式

（一） 分區預賽以電能產出成績計分，比重為百分之百（100%），以數據記錄軟體收集渦輪機於 30 秒測試內之總能量輸出。

（二） 每隊有二次量測機會，採計最高電能產出作為最終成績。

（三） 各隊電能輸出相對於其他競爭者排名，排名數據以 T 學生分布轉化為 0 至 100 之積分，每隊獲得與其排名相對應之積分。

（四） 依積分排名，各分區、各組排名前十五名之隊伍，得晉級亞洲聯賽。

（五） 如二次量測結果均為 0，該隊無論排名如何，均不得晉級。

附錄三　亞洲聯賽競賽規則（差異規定）

本附錄為亞洲聯賽相對於附錄一通用規則之差異規定；未列於本附錄者，悉依附錄一辦理。

一、活動名稱

「2026 KidWind 風力能源亞洲聯賽」（以下簡稱本競賽）。如有未盡事宜，將於競賽網頁及競賽 LINE 社群公布。

二、參賽資格

（一）**國際隊伍**：依本辦法「參、參賽對象與組別」所定之出生年區間認定組別，每組四人。

（二）**本地隊伍**：主辦國各公私立國小、國中、高中（職）在校學生，並通過北、中、南分區預賽各組前 15 名取得晉級證書者；晉級隊伍不得更換隊員。

亞洲聯賽各隊（含本地晉級隊伍及國際隊伍）一律不得更換隊員，並不適用本辦法「玖、注意事項」第七點關於不可抗力換員之規定。

三、競賽組織

本競賽設競賽執行長一名，負責統籌與執行期間之評審及裁判事務，其下轄專家評審委員會（設評審長一名及專家評審委員數名，負責渦輪機系統之專家評分）、裁判團及行政團隊，組織如圖 1。

圖 1　亞洲聯賽組織圖

四、風洞、轉盤與器材

（一）渦輪機測試區設兩座風洞：低速風洞（風洞 A）風速範圍 2 至 3 公尺／秒；中高速風洞（風洞 B）風速範圍 3 至 4 公尺／秒，並配備轉盤裝置以改變風向。兩座風洞之主要差異如下表，分區預賽（單一風洞）並無風洞 B 之轉盤機制：

項目	風洞 A（低速）	風洞 B（中高速）
風速範圍	2–3 公尺／秒	3–4 公尺／秒
串聯電阻	2Ω（初始值，可調）	30Ω（固定）
電阻調整	得由隊員調整	不得調整
轉盤操作	無	量測開始第 10 秒起，20 秒內逆時鐘旋轉最多 90 度

（二）風洞內部尺寸約 120×120×120 cm，採負壓式風洞；風洞地板裝設高 5–10 cm、直徑 100 cm 之轉盤（如圖 3）。

（三） 為符合風洞尺寸限制，風機整體尺寸不得超過 100 cm（長）×100 cm（寬）×100 cm（高），且底部及整體結構應完全容納於直徑 100 cm、高度 100 cm 之圓柱體積內。

（四） 放置風機進入風洞時，應以轉盤中心為基準置於中心位置，並預留渦輪機轉動所需額外空間。

（五） 工程筆記本由主辦單位自 2026 年 8 月 1 日起，依完成報名之先後順序隨發電機陸續寄送；各隊應於競賽當日報到時繳交，作為部分評分依據，主辦單位備份後擇日寄回。

（六） 設計及創意運用海報得事先製作，並於現場張貼於評審審核區（尺寸不得大於 A0）；現場不提供投影設備，簡報及作品說明應以海報或實體展示方式為之。

（七） 其餘器材、設計通則及安全規定，均依附錄一辦理。

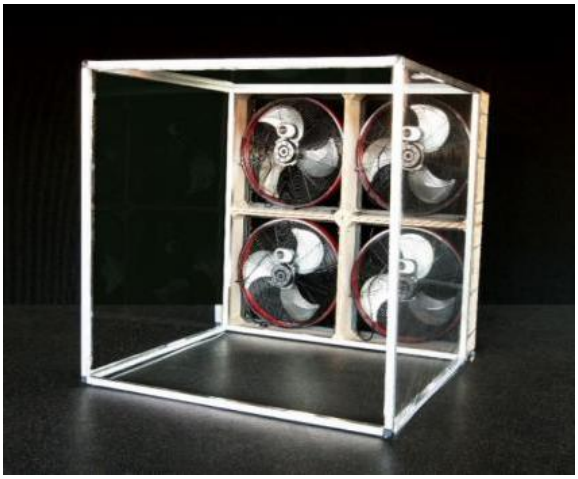


圖 2　風洞測試示意圖（亞洲聯賽）

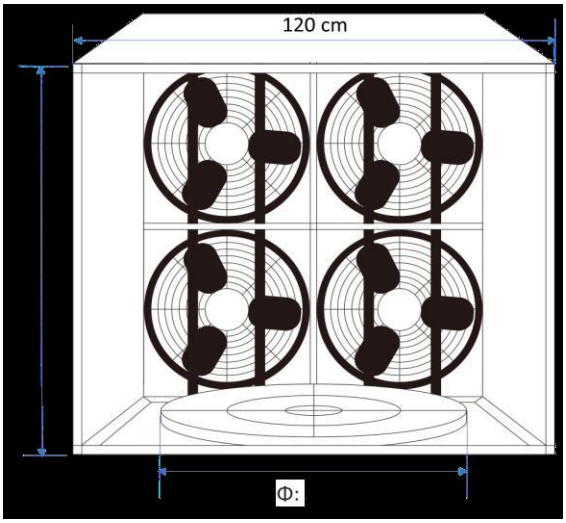


圖 3　轉盤於風洞示意圖

五、量測代幣與測試規則

（一） 各隊於報到時，每座風洞各獲發對應之量測代幣二枚，每枚授予使用該風洞量測一次之權利；每次量測完成後，助理裁判回收代幣一枚。

（二） **風洞 A 測試：**渦輪機底部電線連接串聯之威尼爾可變電阻（VES-VL）電路並同時量測電壓與電流；其初始電阻一律復原為最小值 2 歐姆，再由團隊一名成員視需要調整。

（三）**風洞 B 測試：**電路串聯固定 30Ω 電阻並同時量測電壓與電流，所有組別不得更改電阻值（賽中將於電能感應器額外連接 30Ω 電阻，固定為 30Ω，不得調整）。數據測量正式開始後第 10 秒起，助理裁判將於 20 秒內將地面轉盤逆時鐘旋轉最多 90 度，並持續量測至總時間（30 秒）結束；此為風洞 B 之專屬機制，分區預賽不適用。

（四）於兩座風洞之每次量測中，得使用不同之齒輪組及風扇設計（含風扇形狀、尺寸、數量及攻角）；惟風機主支撐架於競賽期間不得進行任何更改或替換。

（五）每座風洞各有二次測試機會，僅採計二次中之最佳一次作為該風洞之最終得分。

（六）其餘排隊、設置、採集、放棄、停止運轉、成績登錄等，均依附錄一「五、渦輪機測試共通規則」辦理。

六、風能知識考核（線上）

（一）**考核方式：**採線上測驗，於競賽當日現場辦理；主辦單位將公告開放作答之時間區間。

（二）**試題形式：**選擇題二十題，作答時間三十分鐘。

（三）**提前交卷：**作答開始滿十分鐘後，始得提交線上試卷並提前離場；未滿十分鐘者，不得提交試卷或離場。

（四）**試題語言：**提供中文、英文、泰文、日文、韓文五種語言版本，由隊伍擇一作答。

（五）**作答對象：**以隊伍為單位，每隊作答一份，其成績計入該隊伍總成績。

（六）**應試設備：**所需之平板電腦、筆記型電腦或行動電話等設備及網路連線，概由參賽隊伍自備；因設備或網路因素致無法或中斷作答者，由該隊自行負責。

七、亞洲聯賽成績計算方式

總成績由下列三部分構成，合計 100%：

評分項目	比重	說明
電能產出	40%	風洞 A 20%＋風洞 B 20%，各取該風洞二次量測之最佳一次；以 T 學生分布轉化為 0–100 積分後計分。
渦輪機設計（含工程筆記本）	50%	由專家評審於施作與測試過程中檢查並訪談（約 3–5 分鐘）；子項配分如下表。
風能知識考核	10%	線上測驗，辦法詳見本附錄第六點。

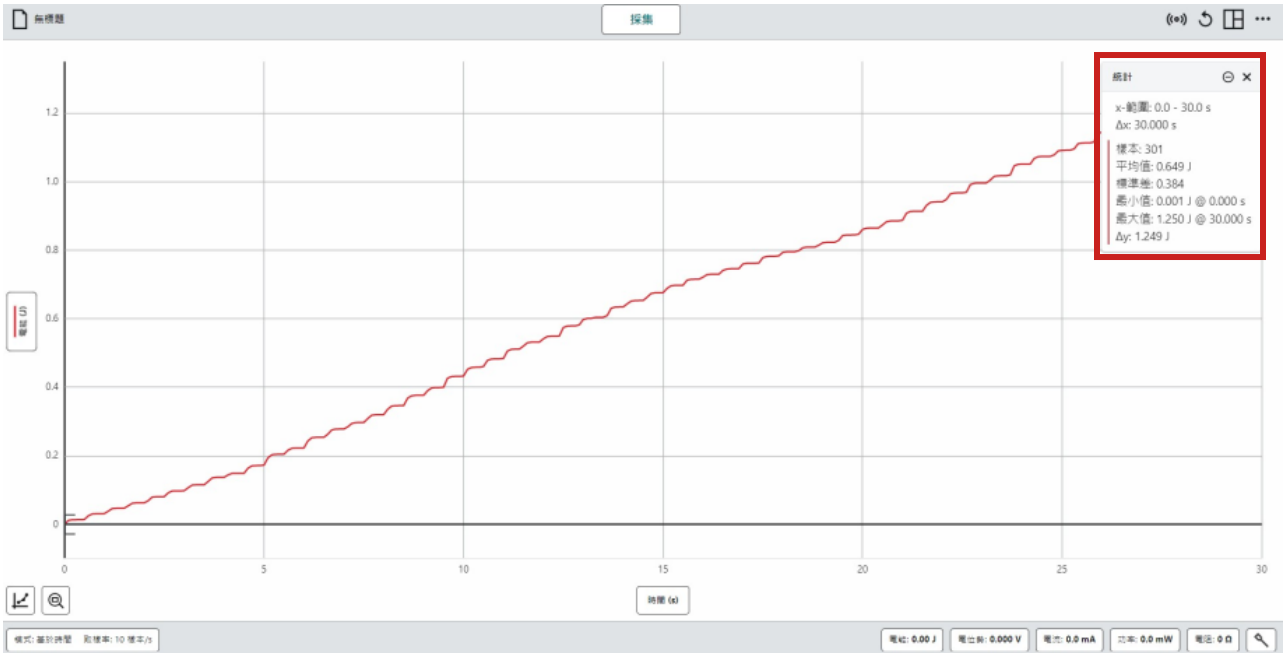
渦輪機設計（50%）子項配分：

子項	配分（佔總成績）
工程筆記本	10%
葉片設計	8%
動力／傳動設計	8%
支架／結構設計	8%
整體工程思維	6%
理念、創意與環保	5%
簡報表達	5%
小計	50%

為鼓勵創新設計並杜絕學術剽竊，同一學校或同一指導老師指導之隊伍，其作品如疑似相似度（含扇葉形狀、扇葉數目、齒輪比、攻角與傳動設計）過高，經評審團討論後，最重得判定為失格，其渦輪機設計評分（50%）以零分計算；其他疑義由評審團共同討論決定。

附錄四　電能量測報告

電能輸出以 Vernier 數據分析系統量測，於三十秒測試區間內同時收集電壓與電流讀數並積分計算電能（單位：焦耳，J）。成績以該區間統計之最大值（最大累積電能）為準。下圖為量測介面示意。



電能量測介面示意（統計區間 0–30 秒，最大值 1.250 J）

附錄五　工程筆記說明

一、格式說明

工程筆記應使用主辦單位提供之筆記本；主辦單位將自 2026 年 8 月 1 日起依完成報名之先後順序，陸續寄送發電機及工程筆記本至收件地址，並應依規定填寫下列內容：

（一）**封面：**隊伍名稱、隊伍編號（承辦單位提供之編號，如 K01、M01、Y01，於報名截止後提供）、開始日期、結束日期、筆記本編號（如使用第一本則為 No.1）。

（二）**參賽作品說明：**

1. **圖片說明：**得以相片或手繪記錄設計過程。圖面得以三視圖、立體圖或剖面圖呈現，尺寸一律 A4（21×29.7 cm）內；得加註機構動作說明圖等輔助；電腦繪圖或徒手畫皆可，惟須清楚可視，並盡量標示正確尺寸。
2. **文字說明：**包含作品材料說明、創作特點與創意說明、作品應用範圍及發展潛能（如商業應用性）等，並得自行增列。
3. **渦輪機設計問題準備與論述：**例如製作渦輪機時遭遇之障礙或挑戰、如何平衡扇葉、如何決定葉片數量／螺距（角度）／長度／材料、結構及支撐架設計、性能提升策略、設計工藝特色、可回收與可重複使用性，以及支持之定律或實驗等。

二、備註

（一）工程筆記為亞洲聯賽評審之主要文件；分區預賽無須繳交工程筆記。

（二）筆記內容如參考其他資料，務請註明來源出處。

三、競賽推薦書目

（一）英文書籍：WindWise Curriculum。

（二）英文書籍：探索風力實驗手冊
（https://www.calculator.com.tw/calproduct5e1e58ccb8a0f.htm）。

（三）中文書籍：風力發電二十問（周鑑恒教授著，
（https://www.calculator.com.tw/calproduct62442813825ac.htm）。

（四）中文書籍：流體力學拾趣（周鑑恒教授著，
（https://www.calculator.com.tw/calproduct5e1e4dd29d708.htm）。

2026 年 KidWind 風力能源亞洲聯賽暨分區預賽

競賽當日不可抗力切結書

立切結書人全體成員，參與「2026 年 KidWind 風力能源亞洲聯賽暨分區預賽」，因不可抗力事由，於競賽當日報到截止前提出下列申請，謹此切結：

一、　**切結事由（請勾選，得複選）：**

□　不可抗力更換隊員：原隊員 _____，更換為 _____。

□　不可抗力致隊員無法參加競賽：無法參加之隊員 _____，該隊以實際到場人數參賽。

二、　不可抗力事由說明：_____（並檢附完整書面佐證資料）

立切結書人聲明，前開事由係因不可抗力所致，所附佐證資料均屬實；如有不實，願負一切法律責任，並同意主辦單位逕予取消本隊參賽或獲獎資格。本申請應經大會裁判會議同意並完成報到後，全隊始保有參賽及獲獎資格。

※「不可抗力更換隊員」僅適用於分區預賽階段；已晉級亞洲聯賽之隊伍，其隊員一律不得更換（惟仍得依本切結書辦理「不可抗力致隊員無法參加」之情形）。

此致　亞太能源科學教育協會

立切結書人簽章（須全體成員簽章）：_____

日期：中華民國 115 年 ____ 月 ____ 日

2026 年 KidWind 風力能源亞洲聯賽暨分區預賽

轉區賽切結書

立切結書人全體成員參與「2026 年 KidWind 風力能源亞洲聯賽暨分區預賽」，自即日起正式宣布由 _____ 區預賽轉至 _____ 區預賽。

立切結書人充分了解並同意，因換場地可能對原隊上成員權益產生影響或引發其他爭議；在此聲明全體成員絕無異議，並同意一切後續問題或爭議均與主辦單位無關。

此致　亞太能源科學教育協會

立切結書人簽章（須全體成員簽章）：_____

日期：中華民國 115 年 ____ 月 ____ 日

2026 年 KidWind 風力能源亞洲聯賽暨分區預賽

退賽切結書

立切結書人全體成員參與「2026 年 KidWind 風力能源亞洲聯賽暨分區預賽」，自即日起正式宣布退賽。

立切結書人充分了解並同意，因退賽可能對原隊上成員權益產生影響或引發其他爭議；在此聲明全體成員絕無異議，並同意一切後續問題或爭議均與主辦單位無關。

此致　亞太能源科學教育協會

立切結書人簽章（須全體成員簽章）：_____

日期：中華民國 115 年 ____ 月 ____ 日

附錄九　常見問題（FAQ）

本附錄係就學生、家長及指導老師常見之問題彙整說明，僅供參考；如其內容與本辦法本文或其他附錄之規定不符者，悉以本辦法之規定為準。

一、報名與參賽資格

問題	說明
報名期限至何時？	自公告日起至 2026 年 10 月 2 日（星期五）17:30 止；逾期未完成線上繳費者，視為未完成報名。
競賽分哪幾組？	分國小組（4–6 年級）、國中組（國一至國三）、高中職組（高一至高三）三組，各組獎項分別評定。
每隊幾人？一定要同校嗎？	每隊四人。學校推薦須為同校學生並由該校現職教師指導；個人組隊得為非同校學生，由學校教師或家長一名指導。
同一名學生可否報名兩隊？	不可。每人限報一隊，經查同時參與多隊者，逕予取消競賽資格。
可以跨區報名嗎？	可，惟以北、中、南擇一區報名為限。
報名後可否更換隊員或指導老師？	報名截止後（2026 年 10 月 2 日 17:30）即不得異動。分區預賽階段如遇不可抗力，經裁判會議同意得於報到前更換；惟已晉級亞洲聯賽之隊伍，其隊員一律不得更換。
隊長有何職責？	隊長為該隊與大會間之主要聯絡人，並於風洞量測時，為該次測試是否進行（開始採集或放棄）之最終決定者。

二、費用與保證金

問題	說明
需要繳報名費或材料費嗎？	無須材料費；每隊報名時繳納保證金新臺幣 2,000 元。
如何繳費？可以銀行轉帳嗎？	本競賽採 RegMaster 線上報名暨付款機制，報名與繳費均於線上完成，不受理銀行轉帳。
保證金何時退還？	凡全程參與活動（含閉幕頒獎典禮）之隊伍，於活動結束後依原線上付款管道全額退還。
保證金包含哪些項目？	分區預賽已含比賽專用發電機一組、選手午餐、工程筆記本一本及活動保險。

三、競賽器材

問題	說明
發電機需要自備嗎？	不需要。競賽使用之指定發電機由大會提供，主辦單位將自 2026 年 8 月 1 日起依完成報名之先後順序，陸續隨工程筆記本寄送至收件地址；其餘材料由各隊自行製作與準備。
發電機功能不良怎麼辦？	請於到貨七日內出示保固貼紙證明申請更換，逾期不予受理。
比賽使用什麼可變電阻與感應器？	採用威尼爾可變電阻（VES-VL，2–200 Ω）與 Go Direct 電能感應器（GDX-NRG）。

問題	說明
可變電阻如何調整？初始值多少？	兩旋鈕所示數值之和即為最終串聯電阻；每次量測前一律復原為最小值 2 歐姆，再由隊員視需要調整。
葉片可否使用市售現成品或 3D 列印？	不得以工廠預鑄或塑膠射出之市售品作為葉片或翼型／板材；3D 列印零件得使用，惟須能向評審完整說明其原理。
護目鏡需要自備嗎？	需要。每位選手須全程配戴，一般眼鏡不得視為護目鏡。

四、風洞與量測

問題	說明
風機尺寸有何限制？	整體尺寸不得超過 100×100×100 cm，且須可完全置入競賽風洞。
區賽與亞洲聯賽的風洞有何不同？	分區預賽為單一風洞、風速約 3–4 m/s、不設轉盤；亞洲聯賽設風洞 A（2–3 m/s）與風洞 B（3–4 m/s，並配備轉盤）。
量測代幣是什麼？發幾枚？	每座風洞於報到時各發二枚代幣，每枚授予使用該風洞量測一次之權利。
設置與採集各多久？	進場後 3 分 30 秒內完成設置，正式採集為 30 秒；助理裁判於第 2、3 分鐘各提醒一次。
每座風洞可量測幾次？採計哪一次？	每座風洞有二次測試機會，僅採計兩次中之最佳一次。
量測值超出感應器上限會怎樣？	該次不予採計並退還代幣，得修正後重新排隊一次；經修正後仍超出者，該次成績以零分計算。
風機於測試中翻倒或斷裂怎麼辦？	為維護安全，助理裁判得視現場狀況立即停止測試（含關閉風扇）。停止後將詢問隊長是否以當次結果作為成績：答「是」以停止當下已取得之數據為準；答「否」則該次成績以 0 分計算，且不得重新測試。
亞洲聯賽風洞 B 的轉盤何時轉動？	量測開始第 10 秒起，助理裁判於 20 秒內將地面轉盤逆時鐘旋轉最多 90 度。
風機炸裂致人員受傷或風洞損壞怎麼辦？	該次成績以零分計算，損害賠償責任由該隊自行承擔；情節重大者，得取消參賽資格。

五、評選、晉級與獎項

問題	說明
分區預賽如何計分？前幾名晉級？	以電能產出 100% 計分、取兩次最佳；各區各組前 15 名晉級亞洲聯賽。
亞洲聯賽如何計分？	電能產出 40% ＋ 渦輪機設計 50%（含工程筆記本 10%）＋ 風能知識 10%。
風能知識考核如何進行？	競賽當日現場線上作答，選擇題 20 題、限 30 分鐘，提供中、英、泰、日、韓五語、每隊一份；作答滿十分鐘後始得提交並離場。
工程筆記一定要繳交嗎？	亞洲聯賽須於報到時繳交工程筆記；分區預賽則無須繳交。

問題	說明
有哪些獎項？	各組設金、銀、銅及優勝；亞洲聯賽另設新秀獎、評審團獎及工程筆記本獎。
世界賽資格如何取得？	亞洲聯賽各組前三名取得參加 KidWind 世界賽之資格，出國費用自理；世界賽如未能舉辦，資格保留至次一年度（最多一年）。
獎金需要繳稅嗎？	得獎獎金應依中華民國稅法繳納相關所得稅。

六、競賽當日注意事項

問題	說明
當天需攜帶什麼證件？	須攜帶學生證、健保卡、護照、身分證或其他政府機關核發之附照片證件之一備查。
報到遲到會如何？	報到截止後三十分鐘內未完成報到者，視同棄權。
當天人數不足四人怎麼辦？	除不可抗力因素外，報到參賽人數未達四人者，以棄權論。
指導老師或家長可以進場協助嗎？	比賽期間不得進入比賽場地，亦不得以任何方式指導參賽者。
對公布成績有疑義怎麼辦？	應於成績公布後一小時內向工作人員提出書面申覆；逾時或離場者，視同同意公布之成績。
現場有提供投影設備嗎？	現場不提供投影設備；簡報及作品說明請以海報（最大 A0）或實體展示方式為之。
隊伍名稱有何規定？	須文明、簡潔（中文不超過 10 字、英文不超過 20 字元）且具原創性，不得含低俗、色情、暴力、政治、歧視等內容。

2026 KidWind Challenge in Asia and Regional Preliminaries Competition Regulations

台灣參賽者版本 · Taiwan Participants' Edition

中英文合併版 · Chinese–English Combined Edition · Version 2.2

亞太能源科學教育協會 Asia-Pacific Energy & Science Education Association (AESEA)

I. Preface

In response to the environmental degradation and energy shortages brought about by global climate change, governments around the world have introduced measures to improve the situation. The Government of Taiwan has likewise actively promoted new-energy policies. To achieve the goals of energy transition, efforts must begin not only with technological development and industrial transformation, but also — and no less urgently — with energy education that reaches the whole population and is rooted in local realities. The public must be properly educated about Taiwan's energy circumstances and environmental challenges, so as to build a broad social consensus and advance sustainable energy development. Because Taiwan is poor in natural energy resources, the challenges it faces in developing energy technology are more severe than those of many other countries.

In the United States, the non-profit organization KidWind has spent fifteen years conveying knowledge of renewable energy to the world through curricula, teaching materials, and competitions. The KidWind Challenge takes the form of an international competition, focusing on theme-based energy education that spans the elementary, junior-high, and senior-high levels. Through the interaction of international competition and pre-event seed-teacher training, its educational philosophy and situational context are introduced into schools by teachers within a systematic learning framework, cultivating students' interest in energy technology and guiding them to reflect and adapt when facing problems, to explore solutions, and ultimately to put these into practice in daily life.

In 2025, with the joint support of government, industry, and academia, the Sixth KidWind Challenge in Asia was successfully held on 1–2 November at the Zhongzheng Hall of the Gongguan Campus of National Taiwan Normal University, bringing together nearly one hundred elite teams from Taiwan and Thailand, ranging from the elementary to the senior-high level. To align with international standards, the finals added two wind tunnels — one medium-low speed and one medium-high speed — testing students' all-round ability to tune their turbines under different wind conditions. Senior officials from the Energy Administration of the Ministry of Economic Affairs and the Climate Change Administration of the Ministry of Environment, together with industry partners including Copenhagen Infrastructure Partners (CIP) Fengmiao Offshore Wind Farm, SHINFOX ENERGY CO., LTD., and Skwentex Energy Corp., attended the event. The Gold Awards in the senior-high division and in the combined junior-high/elementary division were won by the teams representing Taichung Municipal Taichung Industrial Senior High School and Nantou County Municipal She-Liao Junior High School respectively, while Thai teams also claimed Silver, Bronze, and Best Design Awards across the two divisions — a testament to the event's calibre of international exchange.

The teams that advanced from that Challenge in Asia went on to represent Taiwan at the 2026 KidWind Wind Energy World Championship in the United States. Among 125 teams and 550 competitors from around the world, they won 4 world championships and swept 3 special awards — the Judges' Award, the KidWind Spirit Award, and the Blade Engineering Award — accounting for roughly one-third of all championship titles, an outstanding result. The Taiwanese delegation also received congratulatory messages from the President and the Vice President, and the Premier personally received and commended them at the Executive Yuan, drawing an enthusiastic response from teachers, students, and society at large.

This year (2026), the Seventh edition of the competition continues. This year's Challenge in Asia is scheduled for December and will bring together teams from six nations — including Thailand, Japan, Malaysia, the Philippines, and Vietnam alongside Taiwan — to compete on the same stage. The organizers will also progressively refine the certification framework for wind-power education, promoting the “KidWind Student Green Energy Technology Certification” and aligning it with the

domestic competency accreditation for green-energy industry talent. It is hoped that students will combine their acquired knowledge with wind-energy inquiry to demonstrate creativity and deepen their energy literacy in competition, foster multiple-intelligence education, and, through hands-on practice, ignite innovation and realize the goals of green energy and education.

II. Organizing Bodies

1. **Advisory (Supervising) Bodies**
   (1) Northern Region: New Taipei City Government Education Bureau.
   (2) Southern Region: Education Bureau of Kaohsiung City Government (tentative).
   (3) Central Region: Education Bureau of Taichung City Government (tentative).
   (4) Challenge in Asia: Ministry of Education; Energy Administration Ministry of Economic Affairs.
2. **Host (Organizing) Bodies**
   (1) Northern Region: New Taipei City Sustainable Development Education Center; Asia-Pacific Energy & Science Education Association (AESEA).
   (2) Central Region: National Museum of Natural Science; Yu Da University of Science and Technology; Asia-Pacific Energy & Science Education Association (AESEA).
   (3) Southern Region: R.O.C. Military Academy; Asia-Pacific Energy & Science Education Association (AESEA).
   (4) Challenge in Asia: Yu Da University of Science and Technology; Asia-Pacific Energy & Science Education Association (AESEA).
3. **Co-organizers**

   KidWind; Vernier Science Education; Dept. of Applied Intelligent Mechanical and Electrical Engineering at Yu Da University of Science and Technology; the Taipei Electrical Commercial Association,and Xin Jiang Tang Public Welfare Association.
4. **Sponsors**

   Copenhagen Infrastructure Partners; Fengmiao Wind Power Co., Ltd.; Asia Vital Components Education Foundation; Kuang-Tien International Ltd.; Skwentex Energy Corp.; and TAIPEI AUDIO & VIDEO STREET.

III. Eligibility and Divisions

The competition comprises the following three divisions; each team consists of four members:

Division	Local Teams (by grade)	International Teams (by year of birth; Challenge in Asia)
Elementary	Grades 4–6	Ages 9–12 (born 1 Jan 2014 – 31 Dec 2016)
Junior High	Grades 7–9	Ages 12–15 (born 1 Jan 2011 – 31 Dec 2013)
Senior High	Grades 10–12	Ages 15–18 (born 1 Jan 2008 – 31 Dec 2010)

Local teams: eligibility is limited to students who are still enrolled (including graduating students) as of January 2026.

International teams: age is determined by the year-of-birth ranges above.

IV. Registration

1. Registration shall be made according to competition division. Each team shall elect one captain to serve as the team's principal liaison with the organizers and as its representative for competition-related matters. During wind-tunnel measurement, decisions on whether a given test proceeds (including whether to begin data collection or to abandon the test) shall rest finally with the captain. Where the captain is unable to perform these duties for any reason, they shall be performed by a deputy designated in advance by the team.
2. Registration and payment shall be completed entirely online through the RegMaster online registration and payment system; bank transfers will not be accepted. The registration period runs from the date of announcement until 17:30 on Friday, 2 October 2026. Fees must be paid online before this deadline; teams that fail to complete payment by the deadline will be deemed not to have completed registration. Once registration and payment are complete, the organizers will dispatch generators and engineering notebooks on a rolling basis, in order of registration completion, beginning 1 August 2026.
3. **Registration URL:** https://regmaster-pro.web.app/events/detail.html?id=CHD8XFK
4. **Team formation:**
   (1) **School Recommendation:** Each team is composed of 4 students from the same school, and must have 1 current teacher from the school as a coach. Cross-region registration is allowed, but only one region (North, Central, or South) can be selected for registration.
   (2) **Personal Team Formation:** Each team is composed of 4 students from different schools, and must have 1 school teacher or parent as a coach. Cross-region registration is allowed, but only one region (North, Central, or South) can be selected for registration.
   (3) Each school can recommend up to three teams. For individual cross-school teams, they can choose one school representative for registration; there is no limit on the number of teams in this category. The same coach may guide multiple teams.
5. **Registration fee and deposit:**
   (1) In the interest of fair competition, apart from the generator (Figure A), which is provided uniformly by the organizers, all other materials shall be made by the teams themselves.
   (2) Teams pay no materials fee. To ensure the proper use of competition resources, each team shall pay a deposit of NT$2,000 at registration. For any team that participates throughout the event (including the closing and awards ceremony), the deposit will be refunded in full after the event via the original online payment channel.
   (3) The Stage 1 (Regional Preliminaries) deposit already covers one competition-dedicated generator, one competitor lunch, one engineering notebook, and event insurance. Teams that do not advance but participate throughout the Regional Preliminaries (including the closing and awards ceremony) will have their deposit refunded after that region's preliminaries via the original online payment channel.
   (4) Stage 2 (Challenge in Asia): teams advancing from the Regional Preliminaries pay no additional fees and are provided a competitor lunch and event insurance on the day of the Challenge in Asia; their deposit will be refunded after the Challenge in Asia (including the closing and awards ceremony) via the original online payment channel.

(5) Generators must be kept in good order. Each generator is tested for normal function before dispatch; if a unit is found to malfunction, a replacement may be requested within seven days of delivery upon presentation of the warranty sticker as proof, after which requests will not be accepted. If data cannot be measured during the competition due to human factors, the team bears sole responsibility for the outcome.

Figure A. Generator (specifications in Appendix 1)

6. **Enquiries:**
   (1) Email: aesea.kidwind@gmail.com
   (2) Telephone hotline: 02-2382-2027 ext. 14 (service hours: Monday–Friday, 10:00–18:00; Ms. Kung).
   (3) Association website: Asia-Pacific Energy & Science Education Association (http://www.aesea.org).

V. Key Dates and Venues

1. **Registration deadline:** 17:30, Friday, 2 October 2026.
2. **Deadline for changing team members and supervising teachers:** same as the registration deadline (17:30, 2 October 2026). After the registration deadline, neither team members nor supervising teachers may be changed (except in cases of force majeure; see "IX. Important Notes").
3. **Competition venues and dates:**

Event	Date	Divisions	Venue
Southern Regional Preliminaries	Sat, 17 Oct	Elementary, Junior High, Senior High	R.O.C. Military Academy (No. 1, Wei-Wu Rd., Fengshan Dist., Kaohsiung City 830)
Northern Regional Preliminaries	Wed, 28 Oct	Elementary, Junior High, Senior High	6F, New Taipei City Government (6F., No. 161, Section 1, Zhongshan Road, Banqiao District, New Taipei City 220)
Central Regional Preliminaries	Sun, 1 Nov	Elementary, Junior High, Senior High	National Museum of Natural Science (No. 1, Guanqian Rd., North Dist., Taichung City 404)
Challenge in Asia	Sat, 12 Dec	Senior High	Yu Da University of Science and Technology (No. 168, Hsueh-fu Rd., Tanwen Village, Chaochiao Township, Miaoli County 361)
Challenge in Asia	Sun, 13 Dec	Elementary, Junior High	

4. **Competition flow:**

Registration complete → Regional Preliminaries (choose one of North / Central / South) → Challenge in Asia

Figure B. Simplified competition flowchart

VI. Competition Content

1. A registered team must take part in one of the three Regional Preliminaries (North, Central, or South), place in the top fifteen of its division in that region, and complete Challenge in Asia registration, before it may take part in the Challenge in Asia.
2. Teams are not restricted by geographic location and may register for any one of the three Regional Preliminaries.
3. Teams advancing from the Regional Preliminaries will compete alongside international teams at the Challenge in Asia.
4. The official languages of both the Regional Preliminaries and the Challenge in Asia are Chinese and English. Team members may communicate among themselves in any language; however, the engineering notebook, posters, presentation slides, and other submitted documents, as well as responses to judges and referees, shall be in Chinese or English.
5. The per-division team caps for each region (North, Central, South) are as shown below; registration in each division of each region closes once the cap is reached:

Elementary	Junior High	Senior High
30 teams	30 teams	30 teams

6. **Regional Preliminaries schedule (for reference only; subject to on-site adjustment):**

Time	Activity
08:00–08:30	Team Check-in
08:30–09:00	Opening Ceremony
09:00–15:00	Open Wind Turbine Measurement
15:00–15:30	Announcement of Result
15:30–16:00	Awards and Closing Ceremony

** Boxed lunches are expected to arrive at the venue around 11:30–12:00 and will be distributed on a rolling basis; after distribution, each team takes its meal whenever convenient.*

7. **Challenge in Asia schedule:** the competition runs over two days — Day 1 (Saturday, 12 December) for the Senior High division, and Day 2 (Sunday, 13 December) for the Junior High and Elementary divisions. The daily schedule is as follows (applicable to each day; for reference only, subject to on-site adjustment):

Time	Event
08:00–08:30	Team Check-in
08:30–09:30	Opening Ceremony
09:30–15:30	Open Wind Turbine Measurement / Referee Assessment
15:30–16:30	Wind-energy knowledge online quiz (one paper per team, 30-minute limit)
16:30–17:00	Announcement of Result
17:00–18:00	Awards and Closing Ceremony

** Boxed lunches are expected to arrive at the venue around 11:30–12:00 and will be distributed on a rolling basis; after distribution, each team takes its meal whenever convenient.*

VII. Judging and Evaluation

1. **Regional Preliminaries evaluation method:** see Appendix 2.
2. **Challenge in Asia evaluation method:** see Appendix 3.
3. **Challenge in Asia judging:**
   (1) **Assessment items:** energy output, the built work, the engineering notebook, on-site presentation, and the wind-energy knowledge assessment score (details in Appendices 3, 4, and 5).
   (2) **Method of assessment:** see “Challenge in Asia Score Calculation” in Appendix 3.
   (3) **Selection of judges:** the organizers will engage scholars and experts in relevant fields to serve as expert judges, scoring competitors' work descriptions (including review of the applied principles), on-site presentations, and engineering notebooks; the weighting of each scoring item is detailed in Appendix 3.
   (4) Advancing teams shall complete their engineering notebooks before the Challenge in Asia and submit them at check-in on competition day; on-site posters may be of any size (maximum A0), and the built work shall be brought to the venue for display and explanation.
4. **Awards ceremony and display:**
   (1) After the competition concludes, the list of winners is tabulated and announced on-site, and the awards ceremony is held at each competition venue on the day the event concludes.
   (2) Winning teams shall carry out the display of their work in accordance with the display information provided by the organizers.

VIII. Awards

1. Any competitor who completes the competition in full (including attending the closing ceremony) — whether the Regional Preliminaries or the Challenge in Asia — may apply for a certificate of participation.
2. For any team that completes the competition in full (including the Regional Preliminaries, the Challenge in Asia, and the closing ceremony) and whose supervising teacher was not changed during the competition, the organizers will present the supervising teacher with a certificate of appreciation on competition day, in recognition of their contribution.

3. Awards are determined separately by division (Elementary, Junior High, Senior High); the awards in each division are independent of one another.
4. **Regional Preliminaries awards** (presented separately by region and division; the top 15 each receive one certificate of advancement):

Award	Quota (per division)	Certificate-issuing body
Gold Medal	1 team	North: Asia-Pacific Energy & Science Education Association Central: Education Bureau of Taichung City Government (tentative) South: Education Bureau of Kaohsiung City Government (tentative)
Silver Medal	1 team	As above (issued by region of registration)
Bronze Medal	1 team	As above (issued by region of registration)
Outstanding Teams	5 teams	As above (issued by region of registration)

5. **Challenge in Asia awards** (presented separately by division; each certificate is a KidWind international wind-energy competition certificate):

Award	Quota (per division)	Reward
Gold Medal	1 team	International certificate, one trophy, cash prize NT$10,000
Silver Medal	2 teams	International certificate, one trophy, cash prize NT$6,000
Bronze Medal	3 teams	International certificate, one trophy, cash prize NT$3,000
Outstanding Teams	5 teams	International certificate
Rookie of the Year	1 team	International certificate
Judges' Award	1 team	International certificate
Engineering Notebook Award	1 team	International certificate

(The Gold, Silver, Bronze, and Outstanding Teams quotas are administered per division as in the table above; the special awards — the Rookie of the Year, the Judges' Award, and the Engineering Notebook Award — are each awarded once per division. The Engineering Notebook Award is presented by the panel of judges to the team with the best result from the scoring of the engineering notebooks.)

6. The award quotas in the two preceding items may be adjusted at discretion according to the number of participating teams and their results; where entries do not meet the required standard, an award may be left vacant.
7. **World Championship eligibility:**

(1) In the Elementary, Junior High, and Senior High divisions of the Challenge in Asia, three qualifying places for the KidWind World Championship are allocated in each division according to final ranking.

(2) A qualifying team obtains eligibility only; all travel, board and lodging, insurance, and other related expenses arising from competing abroad shall be borne by the team itself, and the organizers provide no subsidy.

(3) Eligibility is allocated in order of ranking within each division, starting from first place; if an allocated team is unable to participate for any reason, the place passes to the next-ranked team in order.

(4) Should the World Championship fail to be held as scheduled owing to force majeure or other causes, a qualifying team's eligibility may be retained for a period limited to one year (i.e., until the following year's World Championship); if the event still is not held, or the team still does not participate, by that time, the eligibility lapses, and the team may not claim any compensation, extension, or other remedy on that basis.

8. Should any additional Challenge in Asia awards be introduced, they will be announced separately before the competition.

IX. Important Notes

1. **Intellectual-property warranty and liability:** teams shall warrant that their entries are original and free of plagiarism or imitation. If litigation arises from plagiarism, misrepresentation of research results, or any similar infringement of another party's intellectual property, the competitor shall resolve all intellectual-property disputes with the other party and bear the related legal liability; the organizers bear no legal liability whatsoever. Where a winning entry is confirmed to violate the foregoing, or loses in litigation, the organizers reserve the right to cancel its eligibility, revoke any award already granted, and reclaim prize money and certificates.
2. A team name shall not contain vulgar, pornographic, frightening, violent, gambling-related, political, racially discriminatory, or similar content, or homophones thereof; it shall use civil language, remain concise (no more than 10 Chinese characters or 20 English characters), and be original. Team names are subject to review by the organizers; where a name does not comply, the organizers reserve the right to require its modification or to reject it.
3. Any of the following results in cancellation of eligibility:
   (1) Each person may register for only one team; a student found registered simultaneously in (participating in) more than one team.
   (2) A team member fails to observe the competition rules and does not improve after being advised.
   (3) The work uses substances harmful to the human body, or materials or equipment posing safety concerns such as being prone to explosion or sparking.
   (4) Required materials are submitted late or not submitted at all.
   (5) The team's members are not all present.
   (6) A winning entry is confirmed to violate the rules, or loses in litigation.

4. Competitors shall bring one of the following for verification: a student ID, National Health Insurance card, passport, national ID card, or another photo-bearing identity document issued by a government authority.
5. **Dispute handling:** any competition-related dispute arising during the competition shall be raised formally in writing to the organizers by the team on the same day; matters within the scope of the competition rules are adjudicated uniformly by the panel of referees and decided by the chief referee; matters involving legal issues shall be pursued by the parties separately through legal channels in accordance with the law.
6. **Score appeals:** after the results of each competition are announced, any team objecting to the results shall lodge an appeal with the organizers' staff within one hour of the announcement; after one hour, or upon leaving the venue, the team is deemed to have accepted the results as announced.
7. **Changes of team members and supervising teachers:** after the registration deadline (17:30, 2 October 2026), neither team members nor supervising teachers may be changed. However, where, between the registration deadline and the close of check-in on competition day, a force-majeure event occurs (complete written supporting evidence must be submitted before the end of the competition, together with the declaration in Appendix 6), and, with the approval of the organizing committee's referee meeting, the change and check-in are completed, the whole team retains its award eligibility. This force-majeure exception for changing a member applies only to the Regional Preliminaries stage; for teams that have advanced to the Challenge in Asia, no team member may be changed under any circumstances.
8. Regional Preliminaries certificates: counting from the date of dispatch (as evidenced by the postmark), if the recorded information is incorrect, a replacement may be requested within seven days of dispatch; requests after that period will not be accepted.
9. Challenge in Asia certificates: after they are presented on the day, if the recorded information is incorrect, a replacement may be requested within one hour of presentation; requests after one hour, or upon leaving the venue, will not be accepted.
10. For non-profit purposes and to promote and provide for school teaching use, if an entry wins an award, the team shall grant the organizers and their designated third parties a licence — free of charge, unlimited in time, and unlimited in number of uses — to use the winning entry and engineering notebook by microform, optical disc, digitization, or other means (including but not limited to reproduction, distribution, publication, public display, public broadcast, and public transmission); the team agrees not to exercise moral rights of intellectual property (including patent and authorial moral rights) against the organizers and their designated third parties.
11. The intellectual property in an entry belongs to the competitor; matters such as its copyright licensing, patent application, technology transfer, and allocation of rights and interests shall be handled in accordance with the relevant laws and regulations.
12. Prize money received by a winning team shall be subject to the relevant income tax under R.O.C. tax law.
13. Any matter not covered herein shall be discussed jointly in light of the circumstances at the time.
14. Any person who completes registration is deemed to have read, and to fully agree to abide by, all the provisions of these regulations.

X. Forms and Documents

Appendix 1 General Competition Rules (common provisions for the Regional Preliminaries and the Challenge in Asia)

Appendix 2 Regional Preliminaries Competition Rules (differences)

Appendix 3 Challenge in Asia Competition Rules (differences)

Appendix 4 The Report of Energy Output in 2026 KidWind Challenge in Asia

Appendix 5 Engineering Notebook

Appendix 6 Competition-Day Force Majeure Declaration

Appendix 7 Region Transfer Declaration

Appendix 8 Withdrawal Declaration

Appendix 9 Frequently Asked Questions (FAQ)

Appendix 1. General Competition Rules

(Common provisions for the Regional Preliminaries and the Challenge in Asia)

The provisions set out in this appendix apply uniformly to both the Regional Preliminaries and the Challenge in Asia. The differences specific to the Regional Preliminaries are detailed in Appendix 2, and those specific to the Challenge in Asia in Appendix 3; where Appendix 2 or Appendix 3 provides otherwise, that provision prevails.

1. Competition Organization

(1) **Panel of referees:** comprising one chief referee and several assistant referees, responsible for interpreting the rules, judging whether teams meet the eligibility requirements, and duly enforcing the safety standards and competition rules for turbine measurement.

(2) **Administrative team:** responsible for ensuring the smooth running of the competition, including administrative matters such as check-in and crowd control.

(The Challenge in Asia additionally establishes a Competition Director and an Expert Judging Committee; their organization is detailed in Appendix 3.)

2. Equipment Notes

(1) Any team requiring a wind turbine may use only the one generator designated by the organizers. An identification sticker is affixed to the generator; its integrity shall be preserved, and it shall be clearly exposed during assembly so that it can be inspected. Where inspection is not possible, the team shall immediately, at the end of the second round, dismantle or remove any obstruction so that inspection can be carried out; a team that fails inspection is disqualified immediately.

(2) Except as otherwise provided in the rules, if a team does not use the foregoing designated generator, the organizers reserve the right to cancel its eligibility.

(3) The wind turbine shall be built in advance. Teams shall bring the stationery and tools needed for construction and finishing — for example, a craft knife, cutting mat, scissors, AB glue or superglue (a quick-setting adhesive is essential), pencil, ruler, compass, protractor, and sandpaper — to facilitate cutting and bonding balsa wood or other materials.

(4) Teams should judge for themselves what spare stationery and tools (such as adhesive) to bring when entering.

(5) A limited number of power outlets is available on-site for competitors, but tools must be supplied by the teams themselves.

(6) Apart from the designated items, other materials are unrestricted; a design entry must conform to the specified dimensions and fit entirely into the competition wind tunnel for testing in order to compete (the dimensions and number of wind tunnels at each event are detailed in Appendices 2 and 3).

(7) Teams shall supply their own safety goggles (a personal item not provided by the organizers), and every member must wear them at all times; a member who persists in not doing so despite the referees' reminders will cause the team to be disqualified.

3. General Principles of Wind-Turbine Design

(1) Each team shall have its own generator, turbine, blades, and support frame, and may not compete using equipment shared with another team.

(2) There is no budget limit on turbine design, but resources should be used effectively and economically, and materials used responsibly.

(3) When measuring inside the wind tunnel, only sandbags or other weights may be used to hold the turbine firmly in place; the use of any projectiles, or of tape or adhesive to secure it, is prohibited.

(4) Energy may be produced only through wind generation within the wind tunnel; extra space should be left for the wind turbine to rotate inside the tunnel.

(5) The turbine may be built with a vertical-axis or a horizontal-axis configuration.

(6) The wind turbine may use a gearbox, pulley system, or similar mechanism to increase power output, and prefabricated gearboxes and other parts may be used; however, providing kinetic energy by means such as pre-stored energy is strictly prohibited.

(7) Factory-prefabricated or ready-made commercial products such as injection-molded plastics may not be used as the blades or airfoils/plates of the wind turbine.

(8) The wind turbine must be able to stand freely on its own. The organizers provide no tower or any support.

(9) Sharp metal objects, acrylic, and similar blade-like materials are strictly prohibited from entering the wind tunnel because of their potential danger; sharp objects such as staples, thumbtacks, and nails are likewise strictly prohibited in the fan-blade assembly.

(10) All components of the wind turbine may use 3D-printed parts and assemblies; where these are used, the expert judges will confirm that the competitors fully understand the technology.

(11) In accordance with international competition rules, using a shroud to channel airflow is prohibited. If a shroud is used during testing, or any part of the turbine extends beyond the wind tunnel, the team is disqualified.

4. Measurement Equipment Specifications

(1) Generator

Item	Specification
Output voltage	0–10 V
Output current	0–0.3 A
Rated voltage	DC 5.9 V
Rated load	10.0 g·cm
Diameter / lead length / shaft diameter	1.25 inch / 4 ft / 2 mm

Performance:

Operating point	Item	Value
No load	Speed / current	2000 RPM / 0.011 A
Stall	Torque / current	40 g·cm / 0.147 A
Peak efficiency	Efficiency / speed / torque / current / power	60.851% / 1569 RPM / 8.6 g·cm / 0.040 A / 0.144 W
Maximum output	Speed / torque / current / power	999 RPM / 20 g·cm / 0.079 A / 0.214 W

The generator is the designated equipment shared across both stages; however, the number, dimensions, and wind-speed settings of the wind tunnels, and (for the Challenge in Asia) the turntable operation, vary by competition stage, as detailed in Appendix 2 (Regional Preliminaries) and Appendix 3 (Challenge in Asia) respectively.

(2) Variable Load (Vernier Variable Load)

Item	Specification
Order code	VES-VL
Resistance range	2–200 Ω
Maximum current	0.3 A
Compatible sensor	Go Direct Energy Sensor (GDX-NRG) or Vernier Energy Sensor (VES-BTA)
Included accessories	Two insulated jumper leads with mini alligator clips; one spare 0.375 A fast-blow fuse

Operation: this device has two knobs; the final series resistance is the sum of the values shown on the two knobs (i.e., Knob 1 + Knob 2), adjustable over 2–200 Ω. Before each measurement, every team shall reset the resistance to its minimum value of 2 Ω (from this year onward, to suit this model of variable load, the initial value has been changed from 6 Ω to 2 Ω), after which a team member may adjust it as needed. Note that when the voltage and current approach zero, the resistance value shown by the sensor is not meaningful.

Figure 1. The Vernier Variable Load (VES-VL); the final series resistance is the sum of the two knob values (2–200 Ω, max 0.3 A).

(3) Energy Sensor (Go Direct Energy Sensor, GDX-NRG)

The competition uses this sensor together with the Vernier data-analysis system (Graphical Analysis) to measure voltage, current, power, and energy simultaneously, and thereby to calculate the total energy output over the 30-second test interval (unit: joules, J). Its specifications are as follows:

Item	Specification
Order code	GDX-NRG
Measured quantities	Voltage, current, power, energy
Voltage input range	±5 V (internal load) / ±30 V (external load)
Current input range	±0.18 A (internal load) / ±1 A (external load)

Item	Specification
Resolution	Voltage 1 mV; current 40 μA
Built-in fixed load	30 Ω
Input impedance / insertion resistance	1 MΩ / 1 Ω
Connection	Bluetooth 4.2 wireless or USB wired

Figure 2 Go Direct Energy Sensor (GDX-NRG)

5. Common Turbine Testing Rules

The figure below shows the common turbine-measurement flow, together with the differences between the Regional Preliminaries and the Challenge in Asia in the number of wind tunnels, series-resistance settings, and turntable operation; the detailed differences at each stage are set out in Appendices 2 and 3 respectively.

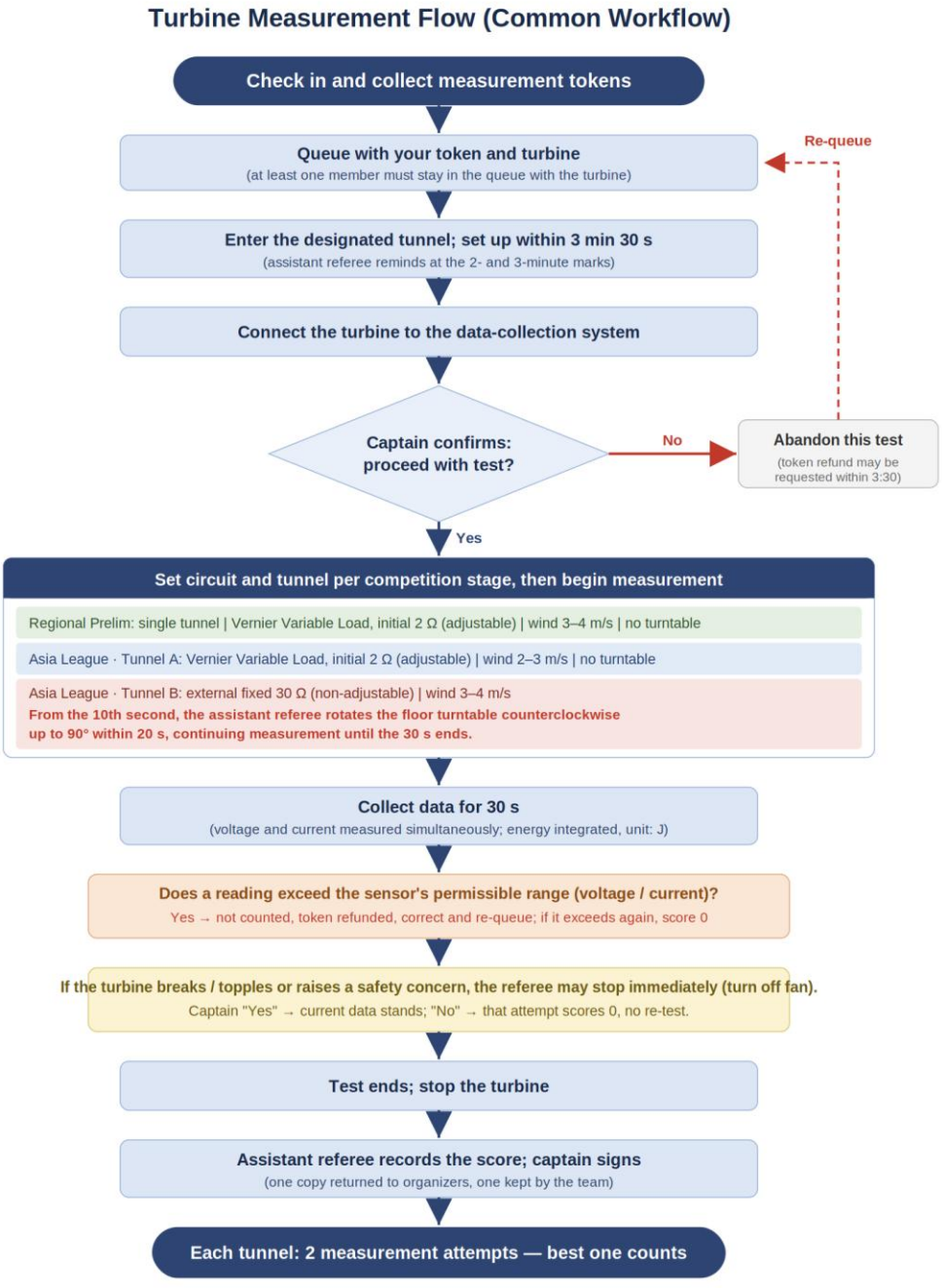


Figure 3. Turbine Measurement Flow (common flow, including Regional Preliminaries / Challenge in Asia differences).

(1) The turbine testing area has one chief referee and several assistant referees.

(2) During measurement, a team may use only the tokens issued at check-in and may not exceed its allotted number; using another team's tokens is strictly prohibited. If more than three measurements are taken, the results of the third measurement onward are not counted, and tokens already used are not refunded. (The number of tokens issued follows the rules for each event; see Appendices 2 and 3.)

(3) Wind-tunnel measurement proceeds in queue order; teams shall queue with their token during the wind tunnel's open period. A queue place is valid only if at least one team member is in the queue together with the team's turbine; if the turbine or all queuing members leave the queue, the team is deemed to have automatically forfeited that queue place.

(4) Each event will announce a final cut-off time for joining the wind-tunnel measurement queue, and teams shall join the queue before that time. Teams that have joined the queue before the cut-off are not restricted by the wind tunnel's open period, and measurement continues until the last team has finished; teams that have not queued, or not used their tokens to measure, by the cut-off are deemed to have automatically forfeited that measurement opportunity, whereupon the relevant tokens are voided, and no re-test or compensation of any kind may be claimed.

(5) After a test begins, the team has three minutes thirty seconds to set up the wind turbine in the designated wind tunnel:

   1. The assistant referee gives reminders at the 2-minute and 3-minute marks; the team shall begin data collection at 3:30, though a team that finishes setup early may begin collection early.
   2. Once the turbine has entered the wind tunnel and been connected to the data-collection system, the assistant referee will ask the captain whether to proceed with the test; the team shall begin or abandon the test within 3:30.
   3. If, within 3:30 of the start of setup, the team voluntarily abandons the test, it may apply for a refund of the token used for that test; to measure again, it shall re-queue and observe the queuing rules.

(6) When the wind tunnel starts normally, the wind turbine shall be able to rotate (start up) on its own without external assistance and begin generating.

(7) The wind tunnel runs continuously during the test, and the assistant referee will collect thirty seconds of the turbine's power and energy-output data; energy output is calculated by the Vernier data-analysis system, which can collect voltage and current readings simultaneously. The energy-measurement fields are detailed in Appendix 4. (During collection in Challenge in Asia Wind Tunnel B, there is an additional turntable-rotation operation; see item 5 of Appendix 3.)

(8) If, after the test begins, the wind turbine breaks, topples, or otherwise poses a safety concern, the assistant referee may immediately stop the test (including stopping the fan) as the situation on-site warrants. After stopping, the referee will ask the captain whether to take the current result as the official score: if the captain answers “yes,” the data/score obtained at the moment of stopping is taken as that test's result; if the captain answers “no,” the test scores 0, and no re-test is allowed.

(9) Handling of out-of-range readings: if, during measurement, either the voltage or the current reading exceeds the permissible upper limit of the energy sensor (the voltage and current limits being determined by the load mode used at that event; see the sensor specifications in item 4 of Appendix 1), that measurement record is not counted, the token for that test is refunded, and the team is given one opportunity to return and correct its turbine (after correction it must re-queue); if, on re-

measurement after correction, the voltage or current reading still exceeds the foregoing limit, that measurement scores zero.

(10) Score counting: each wind tunnel offers two test opportunities, and only the better of the two is counted as the final score for that tunnel.

(11) After the test, competitors shall stop the turbine themselves; if assistance is needed, they may ask an assistant referee to help stop it. If the assistant referee causes any damage to the turbine while helping to stop it, the team bears full responsibility.

(12) After the test is complete, the assistant referee confirms the score according to the fields in Appendix 4 and provides a score slip; once signed by the captain, one copy is returned to the organizers for the record and one is kept by the team for reference.

6. Safety and Other Notes

(1) This competition requires the use of self-supplied cutting tools such as blades and scissors, and of adhesives; parts scattered or ejected during testing are also dangerous. Registered supervising teachers, parents, and students should assess their own abilities and mind their personal safety.

(2) Every competitor must supply and wear safety goggles at all times; ordinary spectacles do not count as safety goggles, and a violator is deemed to have forfeited the competition.

(3) On-site, competitors must follow the instructions of event staff and the designated positions and methods of operation; otherwise the team's eligibility is cancelled.

(4) A team that does not complete check-in within thirty minutes after the check-in deadline is deemed to have withdrawn.

(5) Except for reasons of force majeure, if a team checks in with fewer than four members on competition day, it is deemed to have withdrawn; where force majeure prevents a member from participating, the declaration in Appendix 6 shall be completed and, with the approval of the organizing committee's referee meeting, the team may compete with the number of members actually present.

(6) Each single test in the measurement area is limited to 30 seconds per team; when time is up, the next team tests in order.

(7) During the competition, supervising teachers and family or friends may not enter the competition area, nor coach competitors in any way.

(8) Teams are fully responsible for their turbines. If parts burst, scatter, or disintegrate owing to turbine rotation or structural instability, injuring people or damaging the wind tunnel, venue, or equipment, that measurement scores zero, and the related liability for damages is borne by the team itself; where the circumstances are serious, or the team does not improve after being advised, the organizers may also cancel the team's eligibility.

(9) The panel of referees has final authority over rulings and disputes at this event.

Appendix 2. Regional Preliminaries Competition Rules (Differences)

This appendix sets out the differences of the Regional Preliminaries relative to the general rules in Appendix 1; anything not listed here is governed by Appendix 1.

1. Event Name

“2026 KidWind Wind Energy Regional Preliminaries” (hereinafter “these Regional Preliminaries”). Any matter not covered will be announced on the competition website and the competition LINE community.

2. Eligibility

Enrolled students of public and private elementary, junior-high, and senior-high (vocational) schools nationwide who meet the requirements may register and form teams. Divisions follow “III. Eligibility and Divisions” of these regulations: Elementary (Grades 4–6), Junior High (Grades 7–9), and Senior High (Grades 10–12), four members per division. Other team-formation rules are detailed in “IV. Registration.”

3. Wind Tunnel and Equipment

(1) These Regional Preliminaries use a single wind tunnel with an internal space of about 120×120×120 cm, of negative-pressure (suction) design producing a uniform flow; the tunnel's mean wind speed is about 3–4 metres per second (measured 30 cm in front of the fan). No turntable is used at this stage.

(2) To fit the wind-tunnel dimensions, the overall turbine size shall not exceed 100×100×100 cm, so as to leave sufficient space.

(3) All other equipment, design principles, and safety rules follow Appendix 1.

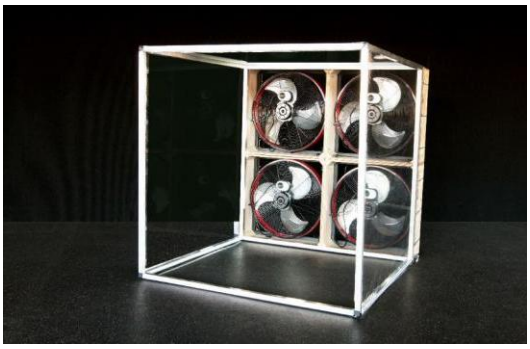


Figure 1. Regional Preliminaries wind-tunnel test (single tunnel, no turntable).

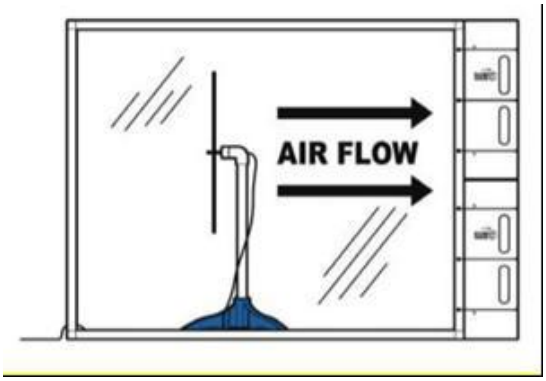


Figure 2. Airflow direction inside the wind tunnel (fan blades face outward; no further reminder is given during the competition).

4. Measurement Tokens and Test Rules

(1) Each team is issued two measurement tokens at check-in, each conferring the right to one wind-tunnel measurement; after each measurement, the assistant referee collects one token.

(2) During the test, the wires at the base of the turbine connect in series to the Vernier Variable Load (VES-VL) circuit, and voltage and current are measured simultaneously.

(3) Before each measurement, all divisions reset the initial resistance of the Vernier Variable Load uniformly to the minimum value of 2 Ω (specifications and instructions in item 4 of Appendix 1), after which one team member may adjust it as needed.

(4) All other matters — queuing, setup, collection, abandonment, score counting (best of two), etc. — follow “5. Common Turbine Testing Rules” of Appendix 1.

5. Regional Preliminaries Score Calculation

(1) The Regional Preliminaries are scored on energy output, weighted at one hundred percent (100%), using data-logging software to collect the total energy output of the turbine over the 30-second test.

(2) Each team has two measurement opportunities, and the highest energy output is taken as the final score.

(3) Each team's energy output is ranked relative to the other competitors; the ranking data is converted, using the Student's t-distribution, into a score from 0 to 100, and each team receives the score corresponding to its ranking.

(4) By score ranking, the top fifteen teams in each division of each region advance to the Challenge in Asia.

(5) If both measurement results are 0, the team may not advance, regardless of its ranking.

Appendix 3. Challenge in Asia Competition Rules (Differences)

This appendix sets out the differences of the Challenge in Asia relative to the general rules in Appendix 1; anything not listed here is governed by Appendix 1.

1. Event Name

"2026 KidWind Challenge in Asia" (hereinafter "this competition"). Any matter not covered will be announced on the competition website and the competition LINE community.

2. Eligibility

(1) **International teams:** divisions are determined by the year-of-birth ranges set out in "III. Eligibility and Divisions" of these regulations, four members per division.

(2) **Local teams:** enrolled students of public and private elementary, junior-high, and senior-high (vocational) schools of the host country who have placed in the top 15 of their division in the North, Central, or South Regional Preliminaries and obtained a certificate of advancement; advancing teams may not change team members.

All Challenge in Asia teams (both advancing local teams and international teams) may not change team members under any circumstances, and the force-majeure member-substitution provision in item 7 of "IX. Important Notes" does not apply.

3. Competition Organization

This competition has one Competition Director, responsible for overall coordination and for judging and refereeing during the event, under whom sit the Expert Judging Committee (with one Head Judge and several Expert Judges, responsible for expert scoring of the turbine system), the Panel of Referees, and the Administrative Team, organized as in Figure 1.

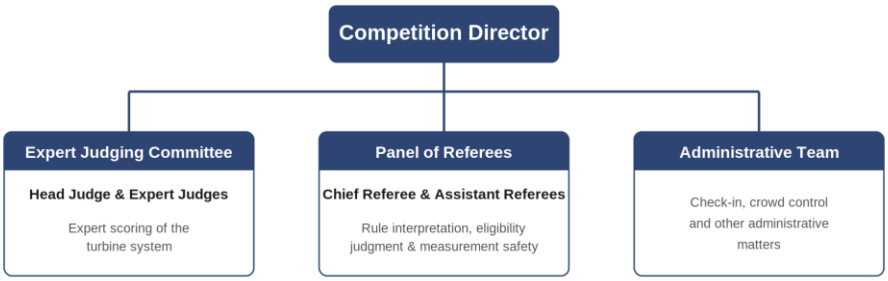


Figure 1. Challenge in Asia organization chart.

4. Wind Tunnels, Turntable, and Equipment

(1) The turbine testing area has two wind tunnels: the low-speed tunnel (Wind Tunnel A) with a wind-speed range of 2 to 3 m/s, and the medium-high-speed tunnel (Wind Tunnel B) with a wind-speed range of 3 to 4 m/s, equipped with a turntable to change wind direction. The main differences between the two tunnels are shown below; the Regional Preliminaries (single tunnel) has no Wind Tunnel B turntable mechanism:

Item	Wind Tunnel A (low speed)	Wind Tunnel B (medium-high speed)
Wind-speed range	2–3 m/s	3–4 m/s
Series resistance	2 Ω (initial value, adjustable)	30 Ω (fixed)

Item	Wind Tunnel A (low speed)	Wind Tunnel B (medium-high speed)
Resistance adjustment	May be adjusted by team members	May not be adjusted
Turntable operation	None	From the 10th second after measurement begins, rotated counter-clockwise by up to 90° within 20 seconds

(2) The wind-tunnel internal dimensions are about 120×120×120 cm, of negative-pressure design; a turntable 5–10 cm high and 100 cm in diameter is installed in the tunnel floor (as in Figure 3).

(3) To meet the wind-tunnel size limit, the overall turbine size shall not exceed 100 cm (length) × 100 cm (width) × 100 cm (height), and the base and the entire structure shall fit completely within a cylindrical volume 100 cm in diameter and 100 cm in height.

(4) When placing the turbine into the wind tunnel, it shall be positioned at the centre, referenced to the turntable's centre, leaving the extra space needed for the turbine to rotate.

(5) The engineering notebook is dispatched by the organizers on a rolling basis together with the generator, in order of registration completion, from 1 August 2026; each team shall submit it at check-in on competition day as part of the basis for scoring, and the organizers will make a backup and post it back on a later date.

(6) Design and creativity-application posters may be prepared in advance and posted on-site in the judges' review area (size no larger than A0); no projection equipment is provided on-site, and presentations and work descriptions shall be given by poster or physical display.

(7) All other equipment, design principles, and safety rules follow Appendix 1.

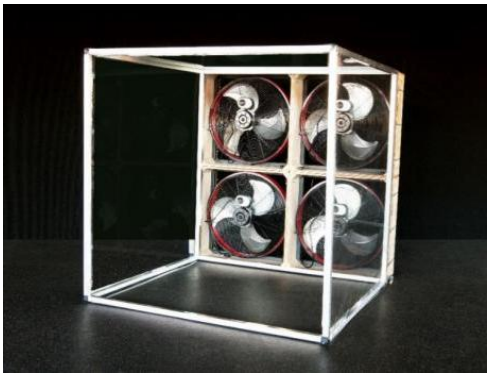


Figure 2. Wind-tunnel test (Challenge in Asia).

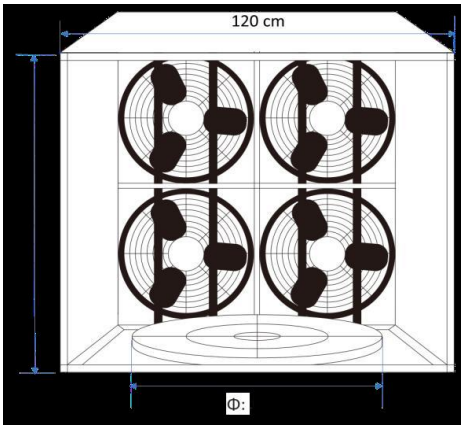


Figure 3. Turntable in the wind tunnel.

5. Measurement Tokens and Test Rules

(1) At check-in, each team is issued two measurement tokens for each wind tunnel, each conferring the right to one measurement in that tunnel; after each measurement, the assistant referee collects one token.

(2) **Wind Tunnel A test:** the wires at the base of the turbine connect in series to the Vernier Variable Load (VES-VL) circuit, and voltage and current are measured simultaneously; the initial resistance is reset uniformly to the minimum value of 2 Ω, after which one team member may adjust it as needed.

(3) **Wind Tunnel B test:** the circuit is connected in series to a fixed 30 Ω resistance and voltage and current are measured simultaneously; no division may change the resistance value (during the competition a 30 Ω resistance is additionally connected to the energy sensor, fixed at 30 Ω and not adjustable). From the 10th second after formal data measurement begins, the assistant referee will rotate the floor turntable counter-clockwise by up to 90° within 20 seconds, and measurement continues until the total time (30 seconds) ends; this is a mechanism exclusive to Wind Tunnel B and does not apply to the Regional Preliminaries.

(4) In each measurement in the two wind tunnels, different gear sets and fan designs (including fan shape, size, number, and angle of attack) may be used; however, the turbine's main support structure may not be changed or replaced in any way during the competition.

(5) Each wind tunnel offers two test opportunities, and only the better of the two is counted as the final score for that tunnel.

(6) All other matters — queuing, setup, collection, abandonment, stopping rotation, score recording, etc. — follow “5. Common Turbine Testing Rules” of Appendix 1.

6. Wind-Energy Knowledge Assessment (Online)

(1) **Format:** an online quiz held on-site on competition day; the organizers will announce the time window during which it is open.

(2) **Question format:** twenty multiple-choice questions, with a thirty-minute answering time.

(3) **Early submission:** a team may submit its online paper and leave early only after ten minutes have elapsed from the start; before ten minutes, it may not submit the paper or leave.

(4) **Question language:** versions are provided in five languages — Chinese, English, Thai, Japanese, and Korean — and the team chooses one in which to answer.

(5) **Respondents:** the quiz is taken on a per-team basis, one paper per team, and the score is counted toward that team's total.

(6) **Test equipment:** the tablet, laptop, or mobile phone and the network connection required are supplied by the team itself; if answering is impossible or is interrupted owing to equipment or network factors, the team bears the responsibility.

7. Challenge in Asia Score Calculation

The total score comprises the following three parts, totalling 100%:

Scoring item	Weight	Notes
Energy output	40%	Wind Tunnel A 20% + Wind Tunnel B 20%, each taking the better of that tunnel's two measurements; scored

Scoring item	Weight	Notes
		after conversion to a 0–100 score using the Student's t-distribution.
Turbine design (including engineering notebook)	50%	Inspected and interviewed by expert judges during fabrication and testing (about 3–5 minutes); sub-item allocation as in the table below.
Wind-energy knowledge assessment	10%	Online quiz; rules detailed in item 6 of this appendix.

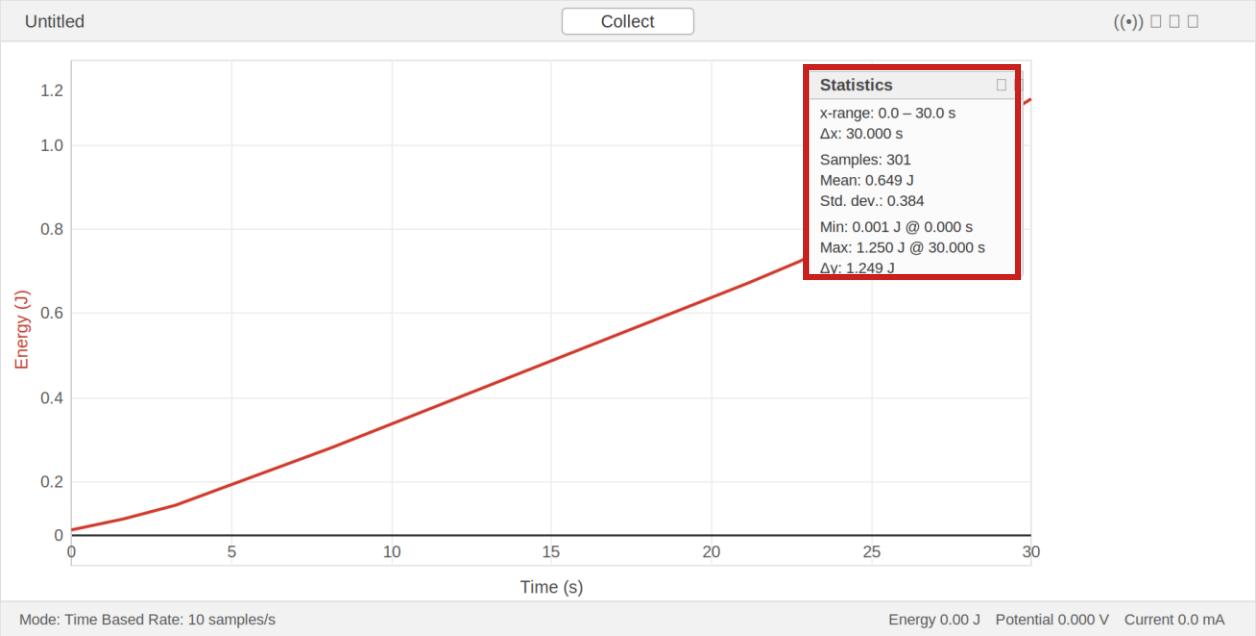
Turbine design (50%) sub-item allocation:

Sub-item	Allocation (of total score)
Engineering notebook	10%
Blade design	8%
Power / drivetrain design	8%
Support / structure design	8%
Overall engineering thinking	6%
Concept, creativity, and environmental awareness	5%
Presentation	5%
Subtotal	50%

To encourage innovative design and eliminate academic plagiarism, where teams from the same school or supervised by the same teacher submit work with a suspiciously high degree of similarity (including blade shape, blade count, gear ratio, angle of attack, and drivetrain design), then, after discussion by the panel of judges, the most severe outcome may be a ruling of disqualification, with the turbine-design score (50%) counted as zero; other doubts are decided by joint discussion of the panel of judges.

Appendix 4. The Report of Energy Output in 2026 KidWind Challenge in Asia

Energy output is measured with the Vernier data-analysis system, collecting voltage and current readings simultaneously over the 30-second test interval and integrating to calculate energy (unit: joules, J). The score is based on the maximum value (maximum accumulated energy) tallied over the interval. The figure below shows the measurement interface.



Energy-measurement interface (tally interval 0–30 seconds; maximum value 1.250 J).

Appendix 5. Engineering Notebook

1. Format

The engineering notebook shall use the notebook provided by the organizers; from 1 August 2026, the organizers will dispatch generators and engineering notebooks on a rolling basis, in order of registration completion, to the delivery address, and the following shall be completed as required:

(1) **Cover:** team name; team number (the number provided by the organizing body, e.g., K1 or Y1, supplied after the registration deadline); start date; end date; notebook number (e.g., No.1 for the first notebook).

(2) **Entry description:**

1. **Illustrations:** the design process may be recorded by photograph or hand drawing. Drawings may be presented as three-view, isometric, or sectional views, all within A4 size (21×29.7 cm); auxiliary illustrations such as mechanism-motion diagrams may be added; computer drawing or freehand drawing is acceptable, but it must be clearly legible, and correct dimensions should be marked as far as possible.
2. **Written description:** includes a description of the work's materials, its distinctive and creative features, and its scope of application and development potential (such as commercial applicability), and may be added to at the team's discretion.
3. **Preparation and discussion of turbine-design questions:** for example, obstacles or challenges encountered in building the turbine; how the blades were balanced; how the number of blades, pitch (angle), length, and material were decided; the structure and support-frame design; strategies to improve performance; distinctive design craftsmanship; recyclability and reusability; and the laws or experiments that support the design.

2. Notes

(1) The engineering notebook is the principal document for Challenge in Asia judging; no engineering notebook need be submitted for the Regional Preliminaries.

(2) If the notebook's content references other material, please be sure to cite the sources.

3. Recommended Reading

(1) English book: WindWise Curriculum.

(2) English book: Exploring Wind Energy Lab Handbook (https://www.calculator.com.tw/calproduct5e1e58ccb8a0f.htm).

(3) Chinese book: Twenty Questions on Wind Power (by Prof. Chou Chien-Heng, (https://www.calculator.com.tw/calproduct62442813825ac.htm).

(4) Chinese book: The Delights of Fluid Mechanics (by Prof. Chou Chien-Heng, (https://www.calculator.com.tw/calproduct5e1e4dd29d708.htm).

2026 KidWind Challenge in Asia and Regional Preliminaries

— Competition-Day Force Majeure Declaration

We, the undersigned, being all the members participating in the "2026 KidWind Challenge in Asia and Regional Preliminaries," hereby submit the following application before the close of check-in on competition day owing to a force-majeure event, and so affirm:

1. **Grounds (please tick; more than one may apply):**
   - [ ] Force-majeure member substitution: original member _____, substituted by _____.
   - [ ] Force majeure prevents a member from participating: the member unable to participate is _____; the team competes with the number of members actually present.
2. Description of the force-majeure event: _____ (with complete written supporting evidence attached).

The undersigned declare that the foregoing event was caused by force majeure and that the supporting evidence attached is true; should any of it be untrue, we are willing to bear all legal liability and agree that the organizers may summarily cancel our team's participation or award eligibility. This application takes effect, and the whole team retains participation and award eligibility, only upon the approval of the organizing committee's referee meeting and the completion of check-in.

※ *"Force-majeure member substitution" applies only to the Regional Preliminaries stage; for teams that have advanced to the Challenge in Asia, no team member may be changed under any circumstances (though the "force majeure prevents a member from participating" situation may still be handled under this declaration).*

To: Asia-Pacific Energy & Science Education Association

Signatures of the undersigned (all members must sign):
_____

Date: _____ / _____ / 2026

2026 KidWind Challenge in Asia and Regional Preliminaries

— Region Transfer Declaration

We, the undersigned, being all the members participating in the "2026 KidWind Challenge in Asia and Regional Preliminaries," hereby formally declare our transfer, effective immediately, from the _____ Region Preliminaries to the _____ Region Preliminaries.

The undersigned fully understand and agree that changing venue may affect the interests of the original team members or give rise to other disputes; we hereby declare that all members have no objection whatsoever and agree that any subsequent problem or dispute is unrelated to the organizers.

To: Asia-Pacific Energy & Science Education Association

Signatures of the undersigned (all members must sign):
_____

Date: _____ / _____ / 2026

Appendix 8. Withdrawal Declaration

2026 KidWind Challenge in Asia and Regional Preliminaries

— Withdrawal Declaration

We, the undersigned, being all the members participating in the "2026 KidWind Challenge in Asia and Regional Preliminaries," hereby formally declare our withdrawal, effective immediately.

The undersigned fully understand and agree that withdrawal may affect the interests of the original team members or give rise to other disputes; we hereby declare that all members have no objection whatsoever and agree that any subsequent problem or dispute is unrelated to the organizers.

To: Asia-Pacific Energy & Science Education Association

Signatures of the undersigned (all members must sign):

_____

Date: _____ / _____ / 2026

Appendix 9. Frequently Asked Questions (FAQ)

This appendix compiles common questions from students, parents, and supervising teachers, for reference only; where its content conflicts with the main text of these regulations or with any other appendix, the provisions of these regulations prevail.

1. Registration and Eligibility

Question	Answer
When is the registration deadline?	From the date of announcement until 17:30 on Friday, 2 October 2026; teams that do not complete online payment by then are deemed not to have completed registration.
What divisions are there?	Three divisions — Elementary (Grades 4–6), Junior High (Grades 7–9), and Senior High (Grades 10–12) — with awards determined separately for each.
How many per team? Must they be from the same school?	Four per team. School-recommended teams must be students of the same school supervised by a serving teacher of that school; individually formed teams may be students from different schools, supervised by one school teacher or one parent.
May one student register for two teams?	No. Each person may register for only one team; anyone found participating in more than one team simultaneously is summarily disqualified.
May I register across regions?	Yes, but registration is limited to one region — North, Central, or South.
After registering, may we change a member or supervising teacher?	After the registration deadline (17:30, 2 October 2026), no changes may be made. At the Regional Preliminaries stage, a change may be made before check-in in the event of force majeure with the referee meeting's approval; however, teams that have advanced to the Challenge in Asia may not change members under any circumstances.
What are the captain's duties?	The captain is the team's principal liaison with the organizers and, during wind-tunnel measurement, the final decision-maker on whether a given test proceeds (begin collection or abandon).

2. Fees and Deposit

Question	Answer
Is there a registration or materials fee?	No materials fee; each team pays a deposit of NT$2,000 at registration.
How is payment made? Can I pay by bank transfer?	The competition uses the RegMaster online registration and payment system; registration and payment are both completed online, and bank transfers are not accepted.
When is the deposit refunded?	For any team that participates throughout the event (including the closing and awards ceremony), it is refunded in full after the event via the original online payment channel.

Question	Answer
What does the deposit cover?	For the Regional Preliminaries it already covers one competition-dedicated generator, one competitor lunch, one engineering notebook, and event insurance.

3. Competition Equipment

Question	Answer
Do we need to supply the generator?	No. The designated generator used in the competition is provided by the organizers, who will dispatch it on a rolling basis, in order of registration completion, together with the engineering notebook to the delivery address from 1 August 2026; all other materials are made and prepared by the teams themselves.
What if the generator malfunctions?	Please request a replacement within seven days of delivery upon presentation of the warranty sticker as proof; requests after that period will not be accepted.
What variable load and sensor does the competition use?	The Vernier Variable Load (VES-VL, 2–200 Ω) and the Go Direct Energy Sensor (GDX-NRG).
How is the variable load adjusted? What is the initial value?	The final series resistance is the sum of the values shown on the two knobs; before each measurement it is reset uniformly to the minimum value of 2 Ω, after which a team member may adjust it as needed.
May blades use off-the-shelf products or 3D printing?	Factory-prefabricated or injection-molded off-the-shelf products may not be used as blades or airfoils/plates; 3D-printed parts may be used, but the team must be able to fully explain their principles to the judges.
Must we supply safety goggles?	Yes. Every competitor must wear them at all times; ordinary spectacles do not count as safety goggles.

4. Wind Tunnel and Measurement

Question	Answer
What size limit applies to the turbine?	The overall size shall not exceed 100×100×100 cm and must fit entirely into the competition wind tunnel.
How do the Regional Preliminaries and Challenge in Asia wind tunnels differ?	The Regional Preliminaries use a single wind tunnel at about 3–4 m/s with no turntable; the Challenge in Asia has Wind Tunnel A (2–3 m/s) and Wind Tunnel B (3–4 m/s, with a turntable).
What are the measurement tokens, and how many are issued?	Two tokens are issued for each wind tunnel at check-in, each conferring the right to one measurement in that tunnel.
How long are setup and collection?	Setup is completed within 3 minutes 30 seconds of entering, and formal collection is 30 seconds; the assistant referee gives a reminder at the 2- and 3-minute marks.
How many measurements per tunnel, and which counts?	Each tunnel has two test opportunities, and only the better of the two is counted.

Question	Answer
What happens if a reading exceeds the sensor's limit?	That measurement is not counted and the token is refunded; the team may correct and re-queue once, but if it still exceeds the limit after correction, that measurement scores zero.
What if the turbine topples or breaks during the test?	For safety, the assistant referee may immediately stop the test (including turning off the fan) as the situation warrants. After stopping, the captain is asked whether to take the current result as the score: “yes” takes the data obtained at the moment of stopping; “no” scores the test 0, with no re-test allowed.
When does the Challenge in Asia Wind Tunnel B turntable rotate?	From the 10th second after measurement begins, the assistant referee rotates the floor turntable counter-clockwise by up to 90° within 20 seconds.
What if the turbine bursts and injures someone or damages the tunnel?	That measurement scores zero, and liability for damages is borne by the team itself; in serious cases, eligibility may be cancelled.

5. Evaluation, Advancement, and Awards

Question	Answer
How are the Regional Preliminaries scored? How many advance?	Scored on energy output at 100%, taking the better of two attempts; the top 15 in each division of each region advance to the Challenge in Asia.
How is the Challenge in Asia scored?	Energy output 40% + turbine design 50% (including engineering notebook 10%) + wind-energy knowledge 10%.
How is the wind-energy knowledge assessment conducted?	Answered online on-site on competition day: 20 multiple-choice questions, 30-minute limit, provided in five languages (Chinese, English, Thai, Japanese, Korean), one paper per team; a team may submit and leave only after ten minutes.
Must the engineering notebook be submitted?	The engineering notebook must be submitted at check-in for the Challenge in Asia; it need not be submitted for the Regional Preliminaries.
What awards are there?	Each division has Gold, Silver, Bronze, and Outstanding Teams; the Challenge in Asia additionally has a Rookie of the Year, a Judges' Award, and an Engineering Notebook Award.
How is World Championship eligibility obtained?	The top three in each Challenge in Asia division qualify for the KidWind World Championship, with overseas expenses self-funded; if the World Championship cannot be held, eligibility is retained until the following year (up to one year).
Is prize money taxable?	Prize money won is subject to the relevant income tax under R.O.C. tax law.

6. Competition-Day Notes

Question	Answer
What ID must I bring on the day?	One of the following photo-bearing documents for verification: a student ID, National Health Insurance card, passport, national ID card, or another issued by a government authority.
What happens if I am late to check in?	A team that does not complete check-in within thirty minutes after the deadline is deemed to have withdrawn.
What if fewer than four members are present on the day?	Except for reasons of force majeure, a team checking in with fewer than four members is deemed to have withdrawn.
May supervising teachers or parents enter to assist?	During the competition they may not enter the competition area, nor coach competitors in any way.
What if I dispute the announced results?	Submit a written appeal to staff within one hour of the announcement; after the deadline, or upon leaving the venue, the announced results are deemed accepted.
Is projection equipment provided on-site?	No projection equipment is provided on-site; presentations and work descriptions should be given by poster (maximum A0) or physical display.
What rules apply to team names?	They must be civil, concise (no more than 10 Chinese characters or 20 English characters), and original, and must not contain vulgar, pornographic, violent, political, discriminatory, or similar content.