『淨零新創主題館』活動辦法

參選說明表–大專院校

填表日期：113 年 11 月 10 日　　　　　　　　　　（**為必填欄位**）

產品或服務名稱	肌肉質量檢測系統
	Muscle Mass Detection System

產品或服務創新介紹 (50%)	我們的產品結合聲學技術與人工智慧方法，提供一款專注於肌肉品質檢測的創新儀器。傳統肌肉檢測方法通常依賴醫師主觀經驗或昂貴儀器如 CT、MRI，不僅成本高昂且流程繁瑣。我們的儀器則採用非侵入性的聲學信號分析，結合 AI 模型進行快速且精準的診斷，大幅降低醫療成本，提升診斷效率。 本產品具備輕量化與便攜性，方便醫師在診間、社區或居家訪視中靈活使用，適合包括長期慢性病患者、運動員和高齡族群等多樣化場景。透過高精度的 AI 演算法，儀器能即時提供肌肉狀況的分析報告，例如肌肉強度、彈性和力量，協助醫師做出更具科學根據的臨床判斷。
	Our product combines acoustic technology with artificial intelligence (AI) methods to deliver an innovative instrument focused on muscle quality assessment. Traditional muscle evaluation methods often rely on physicians' subjective experience or expensive equipment like CT and MRI, which are not only costly but also cumbersome. Our device utilizes non-invasive acoustic signal analysis paired with AI models to provide fast and accurate diagnoses, significantly reducing healthcare costs and improving diagnostic efficiency. The product is lightweight and portable, enabling physicians to use it flexibly in clinics, community settings, or home visits. It is suitable for a diverse range of scenarios, including patients with chronic conditions, athletes, and the elderly. With high-precision AI algorithms, the device can instantly generate detailed reports on muscle conditions, such as strength, elasticity, and power, assisting physicians in making clinically sound and evidence-based decisions.

應用效益 (30%)	1.　降低醫療成本 本產品以非侵入性方式檢測肌肉品質，顯著減少醫療費用，讓更多民眾能以可負擔的成本獲得高品質診斷服務。 2.　提升診斷效率 輕量化設備及快速檢測流程，使醫師能在短時間內獲得精確結果，縮短診療時間，讓更多患者受益，特別是在資源有限的醫療場域如偏鄉地區。 3.　創新服務模式 結合聲學與 AI 技術，開啟肌肉品質檢測的新應用場景，如運動健康評估、高齡族群健康管理等，拓展醫療服務的範疇與深度。 4.　促進商業機會

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	此技術具備高市場需求，可進一步開發多樣化應用，例如健身、復健與職業健康檢測，為醫療器材產業創造龐大商機，吸引投資與合作。 5. 創造就業機會 技術商業化將帶動產業鏈發展，包括生產、銷售、維護及技術支援等，進而創造更多職位，助力人才就業與經濟發展。 6. 提升全民健康意識 透過快速、準確且平價的檢測，推動預防醫學普及，提升民眾對肌肉健康的重視，進而降低因肌肉退化引發的醫療負擔，造福全體社會。
	1.Reducing Healthcare Costs Our product uses a non-invasive approach to assess muscle quality, significantly lowering medical expenses and enabling more people to access high-quality diagnostic services at an affordable cost. 2.Enhancing Diagnostic Efficiency The lightweight device and rapid detection process allow physicians to obtain precise results in a short time, reducing consultation times and benefiting more patients, especially in resource-limited settings such as rural areas. 3.Innovative Service Model By integrating acoustic technology with AI, the product introduces new applications for muscle quality assessment, such as sports health evaluations and elderly health management, expanding the scope and depth of medical services. 4.Promoting Business Opportunities This technology meets high market demand and can be further developed for diverse applications, including fitness, rehabilitation, and occupational health assessments, creating substantial business opportunities and attracting investments and partnerships. 5.Creating Job Opportunities The commercialization of this technology will drive the development of related industries, including production, sales, maintenance, and technical support, thereby creating more jobs and contributing to employment and economic growth. 6.Raising Public Health Awareness Through fast, accurate, and affordable testing, the product promotes preventive medicine, raising public awareness of muscle health and reducing the medical burden caused by muscle degeneration, benefiting society as a whole.
研發績效及國內外發表成效 (20%)	本產品在多項國內創新競賽中屢獲佳績，包括冠軍、金獎及多項佳績，展現卓越的研發實力與創新性。本產品技術應用涵蓋 AI、健康醫療等領域，充分展現跨領域的市場潛力。
	This product has achieved numerous accolades in various domestic innovation competitions, including championships, gold awards, and multiple honors, showcasing its exceptional research and development capabilities and innovation. The product's technology spans AI and healthcare, demonstrating its strong potential for cross-industry

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	applications.				
*符合SDGs永續發展目標	1.消除貧窮		2.終止飢餓	∨	3.健康與社福
	4.優質教育		5.性別平權		6.淨水與衛生
	7.可負擔的潔淨能源		8.適合的工作及經濟成長		9.工業化、創新與基礎建設
	10.減少不平等		11.永續城鄉		12.責任消費及生產
	13.氣候行動		14.保育海洋生態		15.保育陸域生態
	16.和平、正義及健全制度		17.多元夥伴關係		
淨零十二項關鍵戰略	1.風能/光能		2.氫能		3.前瞻能源
	4.電力系統與儲能		5.節能		6.碳捕捉利用及封存
	7.運具電動化及無碳化		8.資源循環零廢棄		9.自然碳匯
	10.淨零綠生活		11.綠色金融		12.公正轉型
研究團隊/單位	本團隊融合醫學、學術與產品三大領域，從學術研究到產品化全程掌控，展現跨領域的協作實力。在醫學領域，團隊成員包括高醫附院骨科主任周伯禧、高醫附院骨科主治醫師林育全與陳姝蓉、高雄長庚運動醫學中心主任周文毅，以及義大醫院家庭醫學科主任黃繼賢，他們在臨床醫療與專業診斷上提供了重要支持。在學術領域，何文獻、鮑永誠及陳彥銘教授，皆為各自研究領域的翹楚，為團隊注入了深厚的學術基礎。產品運營規劃及開發則由高雄醫學大學醫療管理暨醫療資訊學系的黃慧慈，與國立高雄科技大學資訊管理系的羅翊迪、馬玉芳、吳家妤、汪上安攜手負責，確保產品的市場化與實用性，展現完整的技術與市場整合能力。				
	Our team integrates the fields of medicine, academia, and product development, maintaining full control from academic research to product commercialization, showcasing our cross-disciplinary collaboration capabilities. In the medical field, team members include Dr. Chou Po-Hsi, Chief of Orthopedics at Kaohsiung Medical University Hospital, Dr. Lin Yu-Chuan and Dr. Chen Shu-Rong, attending orthopedic surgeons at Kaohsiung Medical University Hospital, Dr. Chou Wen-Yi, Director of the Sports Medicine Center at Kaohsiung Chang Gung Memorial Hospital, and Dr. Huang Chi-Hsien, Director of Family Medicine at E-DA Hospital. They provide critical support in clinical healthcare and professional diagnosis. In the academic field, Professors He Wen-Xian, Bao Yong-Cheng, and Chen Yan-Ming are leaders in their respective research fields, bringing a strong academic foundation to the team. Product operations, planning, and development are handled by Huang Hui-Tzu from the Department of Healthcare Management and Medical Informatics at Kaohsiung Medical University, along with Luo Yi-Di, Ma Yu-Fang, Wu Jia-Yu, and Wang Shang-An from the Department of Information Management at National Kaohsiung University of Science and Technology. They ensure the marketability and practicality of the products, demonstrating comprehensive technical and market integration capabilities.				

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*學校/研究單位 logo	
佐證圖片或影片	

＃ 附註：表格大小不足，請自動調整欄位大小，以便利於撰寫