

The 58th Joint School Science Exhibition: A Triumph of Innovation and Leadership

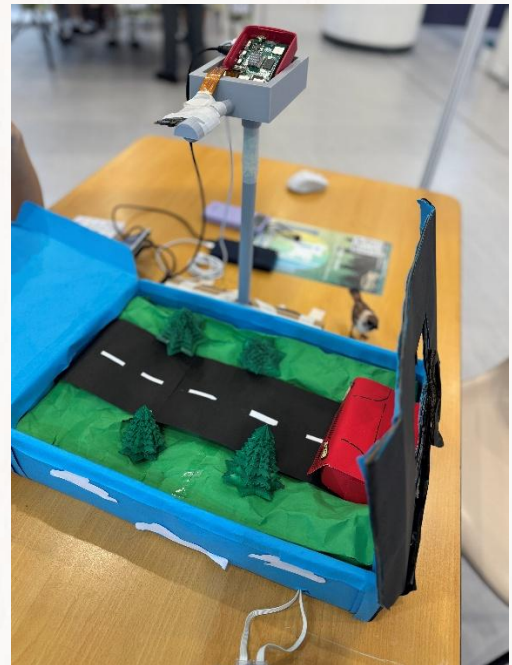
Under the capable leadership of Emily Lam Hin Kwan from Class 6D, who served as Chairperson of the 58th Joint School Science Exhibition Preparation Committee, the exhibition was successfully held at the Hong Kong Central Library from August 21 to 27, 2025. The event drew thousands of visitors from both Hong Kong and abroad, celebrating the spirit of scientific exploration and creativity.

Among the finalists of the Science Exhibition Competition were 6C Chow Cheuk Ming, 6D Lam Tsun Ming, Ng Pak Hin, and Yung Hin Lok, who proudly presented their innovative project at the exhibition booth. Their invention, titled “AI Roadsave,” integrates a custom-designed AI program, a sophisticated network system, and infrared sensors to alert drivers when wild animals are crossing the road. The project aims to protect wildlife and reduce incidents of roadkill, showcasing a thoughtful blend of technology and environmental consciousness.

Media coverage was provided by the Hong Kong Commercial Daily

https://www.hkcd.com.hk/content_app/2025-08/21/content_8710043.html





Foreword



Ms. Emily Lam

Chairperson,
The 58th Joint School Science Exhibition
Preparation Committee

With the moon on the Earth's axial tilt providing harmony, sustaining the continuity of Earth's seasons and governing nature's rhythm, nurturing ecological vitality and maintaining a delicate balance that allows for human-wildlife coexistence. Similarly, harmony within the workplace inspires intercultural exchange and preservation, where diverse minds unite by shared journey toward innovation.

Year after year, our distinguished annual highlight — the Joint School Science Exhibition provides an esteemed platform for aspiring scientists across Hong Kong to transform abstract concepts into tangible innovations, fostering not only critical analysis but also collaborative synergy. Through the convergence of minds and the articulation of projects, it continues to exemplify the power of scientific inquiry in shaping our collective future.

It is with honour and gratitude that I embrace my role as the Chairperson of the 58th Joint School Science Exhibition Preparation Committee. Reflecting upon my journey in the 57th Joint School Science Exhibition as an international science competition competitor, I was deeply inspired by the tenacity, ingenuity, and dedication demonstrated by our peers. Each project stands a testament to countless hours of meticulous research and unyielding perseverance. Motivated by this spirit of innovation, I wanted to step forward, driven by a vision to perpetuate this legacy of intellectual pursuit and collective ambition.

I would like to extend my heartfelt gratitude to our Sponsorship, Adjudicating Panel, Supporting Organizations, Advisory Board, and more whose steadfast support and benevolence have been immense for this event. Your unwavering commitment has empowered us, and potential local secondary school students to seize this opportunity to explore and achieve their dreams.

On behalf of the 58th Joint School Science Exhibition Preparation Committee, I am extending my sincerest appreciation to my Executive Committees, Alumni and Preparation Committees, whose tireless efforts have brought fruition to the 58th Joint School Science Exhibition. This journey was not without its trials, yet it is precisely through adversity. Together, we have transformed aspiration into reality, and I am immeasurably proud of what we have achieved. May the 58th Joint School Science Exhibition ignite within you a fervent appreciation for scientific exploration.

PH 24 AI RoadSave 智途護生



**Tsuen Wan
Public Ho Chuen Yiu
Memorial College**

荃灣公立何傳耀紀念中學

Chow Cheuk Ming 周卓銘
Lam Tsun Ming 林達銘
Yung Hin Lok 翁顯樂
Ng Pak Hin 吳柏軒

Roadkill, meaning "road death", refers to animals killed by vehicle collisions or being run over on roads. With urban development, roadkill is becoming increasingly frequent and severe worldwide. In Hong Kong, thousands of animals are killed this way annually, some even facing extinction risk. Roadkill not only harms ecosystems but can also injure drivers and cause psychological trauma. Yet, society pays little attention to this issue, and effective solutions are lacking. To prevent roadkill, promote human-nature harmony, and reduce driver stress, we designed an affordable, user-friendly, and scientifically effective solution: AI RoadSave.

First, infrared cameras detect animals on the road. Artificial intelligence then analyzes species and location data, transmitting it to a database for ecological research by relevant organizations. This information is simultaneously sent to our driver-facing mobile app. Drivers receive instant pop-up notifications and audible warnings from the app, alerting them to animals ahead so they can take evasive action. Furthermore, users earn mileage points through app usage, redeemable for fuel discounts, car washes, and other rewards — saving money while saving lives, killing two birds with one stone.

Looking ahead, we aim to partner with the government and corporations to trial the technology at roadkill hotspots, secure the aforementioned rewards, and ultimately implement the system across Hong Kong — ending the tragedy of roadkill for good.

動物路面意外，顧名思義，是指路上的動物因汽車碰撞或碾斃而死亡的現象。隨着城市發展，動物路面意外問題在全球範圍內日趨頻繁、嚴重。在香港，每年都有數以千計的動物因而被殺，甚至面臨絕種風險。動物路面意外不只影響生態，也會使駕駛者受驚，帶來精神創傷。然而，社會對動物路面意外缺乏關注，也沒有有效的解決方案。為了避免動物路面意外發生，促進人與自然的和諧共處，減少司機的精神壓力，我們設計了一個便宜、易用、有效的科學解決方案——智途護生。

首先，紅外線相機會檢測馬路上的動物，經人工智能分析物種、位置等資訊，再把它傳送進資料庫，供相關組織進行生態研究。然後，資料會再發送給我們設計給駕駛者的手機應用程式，駕駛者將會看到手機彈出的通知訊息，並聽到應用程式發出的警告，從而得知前方將有動物經過，並採取行動避免碰撞。用戶更可通過使用應用程式賺取里程、換取加油、洗車等優惠，在拯救生命的同時節省金錢，一舉兩得。

未來，我們期望與政府及公司合作，在動物路面意外熱點進行試驗，賺取上述優惠，使技術能在全港範圍內推行，令動物路面意外悲劇從此不再上演。