禧望・Hope
何明華會督銀禧中學
Bishop Hall Jubilee School

自動違泊偵測系統
Automatic Parking Contraventions Detection System
陳朗謙（中四）、鄒宇匡（中四）、莫栢桐（中四）、唐以晴（中三）
CHAN Long Him (F.4), CHENG Yu Sum (F.4), MOK Pak To (F.4), TONG Yee Nen (F.3)

九龍城違例泊車問題嚴重，多條行車線經常堵塞，觀塘減著交通。就此，「自動違泊偵測系統」運用路邊超聲波和地理偵測裝置，偵測車輛和地面距離，若出現偏差且分偵位置停泊，系統便會偵測為違泊，傳送遠距定位信號讓巡查員即時作出回應，以即時處分違泊活動。

In response to the issue of illegal parking in Kowloon City, the Automatic Parking Contraventions Detection System is designed to tackle such problem through deterrence. By using ultrasound and infra-red detectors, the System detects the distance between vehicles and the road surface. If the same distance is detected continuously for five minutes, the System would render it as illegal parking and transmit the information to nearby Traffic Wardens, enabling them to take swift responsive action, thereby deterring illegal parking.

智能隊・Smart Team
中華基督教會譚李麗芬紀念中學
CCC Tam Lee Lai Fun Memorial Secondary School

智能地下停車場
Smart Underground Car Park
馬倩恒（中三）、王家瑤（中三）、黎恩喬（中二）、顏肇愉（中三）
MA Kin Heng (F.3), WONG Ka Yiu (F.3)

九龍城區泊車亂況，導致違例泊車問題嚴重，有見及此，「智能地下停車場」以節省空間的構想建議，透過升降台，自動偵車輛泊進入停泊空間，停車場亦會隨系統啟動定數目，巧停車並使泊車，解決交通阻塞問題。

Serious illegal parking in Kowloon City leads to constant traffic congestion, which is attributable to a lack of parking spaces. In view of this, the Smart Underground Car Park is designed to provide a compact parking location without blocking the roads on the surface. By utilizing elevation platforms, automatic tracks and sensors, the Car Park is fully automated to maximize its capacity, thereby effectively alleviating traffic congestion by shifting the bulk of parking underground.

環保機器人・E.P.R.
棉紡會中學
Cotton Spinners Association Secondary School

智能機器人回收車
Intelligent Robot Recycling Car
林茵遠（中四）、顏樹德（中四）、佘澤威（中四）、李家輝（中四）、覃依馨（中二）、鍾雋豪（中二）
LIN Yulan (F.4), LAI Nga Sin (F.4), ZHU Zewei (F.4), LI Sing Fai (F.4), CHEUNG Yee Man (F.2), ZHONG Junghou (F.2)

違法垃圾棄置導致九龍城街道嚴重衛生問題，導致蚊鼠滋生的風險。有見及此，A社採取清潔壓縮概念的設計，A社採取環保回收車的設計，為回收集，三輪車回收及使可容納七個公噸的垃圾，A社連接太陽能，又提供夜間泊車地圖，並記錄噴藥紀錄，提升市民的環衛。

Illegal garbage disposal along the streets has caused serious environmental hygiene problems in Kowloon City. In response to this, the Intelligent Robot Recycling Car offers a convenient method for citizens to dispose of their garbage. At technology and positioning systems makes the Car easily accessible, while internal compression mechanisms maximize the Car's capacity in holding garbage. The Car also has display monitors that show information on trash sorting and recycling, thus increasing citizens' environmental awareness. Night patrols by the Car allows it to take record of the hygiene situation and spray pesticide, improving the city's cleanliness.

撲滅鼠蟲大聯盟・The Pest Killers
協恩中學
Heep Yunn School

滅蹤
Pestonic
錢思維（中四）、周紅琪（中四）、莫栢桐（中四）、陳詩琦（中四）、羅慧海（中四）
CHIN See Wai (F.4), CHAU Tsz Yu (F.4), LAM Wing Tung (F.4), CHEN Yingqi (F.4), LAW Man To (F.4)

違法棄置垃圾在大廈樓梯造成了衛生問題及老鼠昆蟲滋生。政府處置鼠患如放置捕鼠器和老鼠藥，但這些辦法未能根治鼠患和超聲波來驅趕鼠蟲，並結合超級強力捕鼠器，合力大幅減少區內的鼠蟲數目，改善社區環境衛生。

Illegal disposal of garbage at building places has led to hygiene problems and an increase in mice and mosquito population. Pestonic tackles this issue by installing mice repellent and insect traps. Mice repellers utilize high-frequency ultrasound waves to disperse mice, while insect traps use super glue to trap insects. Together, they significantly reduce the chances of rodents and insects infiltrating residential areas, thereby improving environmental hygiene in the community.

街道守護者・Street Guardian
協恩中學
Heep Yunn School

垃圾行動
Waste Operation
葉穎熙（中四）、許子晴（中四）、王沛文（中四）、葉朗晴（中四）
IP Wing Hei Sss (F.4), Hui Tsz Kiu Queenie (F.4), WONG Pui Sze Mandy (F.4), YIP Wa Long Sophia (F.4)

為解決鋪天蓋地違法棄置垃圾的社會和衛生問題，「垃圾行動」以連接感應器和廢料計算工具，記錄垃圾的棄量以作分析。這系統亦會顯示平均垃圾量，並讓用戶利用所得積分兌換實物回饋，以推動市民在棄置垃圾時作妥善處理。

To tackle the problem of illegal garbage disposal, Waste operation, a mobile app, records users' garbage disposal statistics and connects to smart rubbish bins for score calculation and analysis. The system also displays the average garbage disposal volume within the statistics, as well as allowing users to receive daily necessities as gifts in exchange for their points collected, providing an incentive to stop illegal garbage disposal.

港同中三組・HKUGAC S3 Group
港大同學會書院
HKUGA College

智能路面停車站
Carousel Park
王馨（中三）、楊昭勳（中三）、廣家綜（中三）、康韻（中三）
WONG Yu (F.3), YEUNG Sheung Sun (F.3), LAI Ka Ming (F.3), TONG Nik (F.3)

由於土地供應量不足，香港一直面對缺乏大型停車場，揭開城市停空間問題。有見及此，「口袋樂園之地」參考摩天輪的概念設計模式，以垂直的三輪車，容納七台停泊量，由三輪車組合而成，自動調節配合城市需求，減低市內的停車位問題。

Due to insufficient land supply, lack of public space has long been a serious problem in Hong Kong. In view of this, the Carousel Park provides relatively smaller malls with an online platform where they can hold online exhibitions. To increase the turnover rate of the shops in these malls, the platform also offers their customers a more convenient online shopping experience where they can freely choose what they want like what they can do in a real mall.

金木水火土・Diversity
嘉諾撒聖家書院
Holy Family Canossian College

馬路智能安全系統
Smart road safety system
李凱蕎（中四）、羅卓琳（中四）、李心兒（中四）、林曉詩（中四）、梁偉鈴（中四）、譚卓娜（中四）
LEE Hoi Kiu (F.4), LAW Hiu Ching (F.4), LEE Sum Yi Lucen (F.4), LAM Hiu Sze (F.4), LEUNG Cheuk Yan (F.4), TAM Cheuk Wing (F.4)

九龍城路面交通繁忙，市民和路旁、橋橫上盤一個疏水馬路的地方，由於過馬路者發生意外。越來越多汽車在道路出沒，特別是貨車，並且會偵測行駛的鈴聲。Mice repellers utilize high-frequency ultrasound waves disperse mice, while insect traps use super glue to trap insects。超出光閃爍提醒司機減速慢駛，利用感應器偵查路旁過人及車輛，利用閃燈提醒行人的安全，一起體驗一套新的安全道路。

To tackle the problem of illegal garbage disposal, Waste operation, a mobile app, records illegal parking and traffic congestion, we propose to install a chip with tracking function onto the license plate of all registered vehicles which will be linked to a mobile app. Drivers can track the location and parking time of their vehicles. Alerts and penalty receipts will be issued when necessary. This mobile app also provides parking information to drivers to assist them to find a suitable parking place, such as available parking slots nearby and parking fee of different parking lots.

安全行小分隊・Safe Walk Team
薔色薔之同學暨可譽小學
Ho Yu College and Primary School (Sponsored by Sik Sik Yuen)

智能交通警示燈
Intelligent Traffic Warning Light
林嘉穎（中五）、何冰妍（中五）、朱堅璧（中五）、林曉婷（中五）、邱炳祥（中五）
LAM Kam Wa (F.5), HO Wing In (F.5), CHU Ying Ying (F.5), LIN Yinting (F.5), WU Pui Shan (F.5)

九龍城路面混亂導致交通意外頻生，「智能交通警示燈」希望透過感應器、鏡頭和分析三部分，讓行人更安全地過馬路。系統使用動作感應器能偵測行人是否要橫越馬路，它亦向司機示意要放慢駛。以亮光閃爍顯示路況資訊，分析服務會收集馬路路況資料以大幅改善過馬路之系統問題，協助市民出行更安全更有效。

With many vehicles parked along the road, pedestrians' vision of the road is frequently obstructed, thereby putting them at risk of traffic accidents. In addressing this issue, the Intelligent Traffic Warning Light is designed to ensure their safety. The Light features three components – sensor, display and analysis. The sensory system utilizes motion sensors to determine whether pedestrians are planning to cross the road, which then sends signals to devices on the road that reminds drivers by warning lights to reduce speed. Analytical devices then collect the road crossing and pedestrian frequency data, thus facilitating relevant departments to implement policies for improvement.
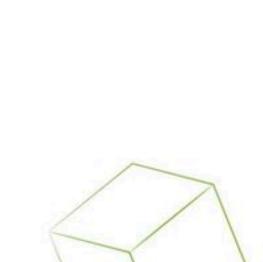
心微軟・Micro-soft Hearts
寶血會上智英文書院
Holy Trinity College

泊車精靈
The Parking Wizard
陳煒敏（中五）、張庭豐（中五）、馮嘉茵（中五）、吳嘉豪（中四）
CHAN Sum Kiu (F.5), CHEUNG Ting Fung (F.5), FUNG Sin Yan (F.5), NG Ka Ying (F.4)

香港車輛眾多，違泊情況亦十分普遍，針對以此道路安全問題，針對路況問題，「泊車精靈」應用程式，能尋找附近的車位，連接泊車位查詢及設計，配合方案中的手機應用程式，車主會透過程式尋找到車輛的位置，查詢車位的空置停泊時間，顯示市民附近其他合適的車位，如位置已滿、車位費用等，協助車主於適當位置泊車，避免違法泊車。

Attributed to the insufficient regulation on illegal parking, illegal parking of heavy vehicles in Kowloon City has become a common phenomenon and leads to different road safety problems in the community.

To tackle the problem, we propose to install a chip with tracking function onto the license plate of all registered vehicles which will be linked to a mobile app. Drivers can track the location and parking time of their vehicles. Alerts and penalty receipts will be issued when necessary. This mobile app also provides parking information to drivers to assist them to find a suitable parking place, such as available parking slots nearby and parking fee of different parking lots.

舒家颿魚大翻身・Phoenix City
嘉諾撒聖家書院
Holy Family Canossian College

口袋樂園之地
Pocket Mall
李栢慧（中四）、岑慶宜（中四）、林凱彤（中四）、陳思哲（中四）、賴欣妍（中四）、慈夏彤（中四）
Charmaine Li Pak Wai (F.3), Chen La Yi (F.3), Lam Hoi Tung (F.3), Chen SiZhe (F.3), Lau Yan Yin (F.3), Marisa Ip (F.3)

由於土地供應量常不足，香港一直面對缺乏大型商場，揭開城市停空間問題。有見及此，「口袋樂園之地」，給予市面較小型的商場以網上形式進行展覽，並為其顧客提供網上購物平台和更便利的網購體驗，提升其商場的流量，於此網上平台，顧客可以在真實商場中輕易地選購心儀貨品，令顧客自由選購，在網上進行購物就像身處於現實一般。

Due to insufficient land supply, lack of public space has long been a serious problem in Hong Kong. In view of this, "Pocket Mall" provides relatively smaller malls with an online platform where they can hold online exhibitions. To increase the turnover rate of the shops in these malls, the platform also offers their customers a more convenient online shopping experience where they can freely choose what they want like what they can do in a real mall.

呂郭碧鳳A組・LKPFC teamA
新生命教育協會呂郭碧鳳中學
NLSI Lui Kwok Pat Fong College

與你同行
Bin With You
威嘉穎（中五）、陳煒穎（中五）、梁成宇（中五）、洗一凡（中五）
CHIN Ka Wing, Ram (F.5), CHAN Man Yan (F.5), LEUNG Shing Yu (F.5), XIAN Yifan (F.5)

九龍城作為一個年長、城區重要社區的地方十分普遍，令垃圾亂丟棄多種衛生問題，如昆蟲、鼠患、惡臭等。尋求針對性改進狀態是香港實施目前區內最值得我們關注的問題。

與你提行的創作靈感是由於應用程式和智能垃圾桶做成。透過鼓勵計畫來積分獎勵系統，給市民增加誘因適當地棄置垃圾，從而改善九龍城的環衛問題。

Kowloon City District is one of the oldest districts in Hong Kong with a lot of social problems. Among them, the most serious problem is definitely the hygiene problem in the district, not to mention the serious rodent infestations.

Under the poor hygienic environment, the living standards of the residents are lowered. To address the problem, we designed a proposal, 'Bin With You', which is comprised of the concepts of intelligent rubbish bin and mobile application. Together with an award system, it will provide an incentive for users to throw rubbish appropriately to improve the environment of the Kowloon City district.

朝起勁・Chill King
匯基書院（東九龍）
United Christian College (Kowloon East)

智能垃圾桶
AI Rubbish Bin
黃思穎（中四）、黎曉霆（中四）、葉凱鈞（中四）、黃約行（中四）
WONG Sze Wing (F.4), LAI Hiu Ting (F.4), YIP Hoi Kio (F.4), WONG Yeuk Hang (F.4)

為應對九龍城違法棄置垃圾的問題，以垃圾桶及設計一個以至清潔和自動腐爛，展示市民前往到所在位置地圖，以垃圾轉化化成有機肥料，在機內近道途，一定時間內自動腐爛，顯示市民前往其他位置轉化成為工程,連接太陽能供電，以太陽能源。

順德聯誼總會梁銶琚中學・
Shun Tak Fraternal Association Leung Kau Kui College
順德聯誼總會梁銶琚中學
Shun Tak Fraternal Association Leung Kau Kui College

探熱型/CCTV
CCTV
陳曉楠（中二）、李漢輝（中二）、盧敬允（中二）、馬曉然（中二）、曾綺妍（中二）、王嘉謙（中二）
CHAN Lok Tung (F.2), LI Tsun Wai (F.2), LO King Wan (F.2), MA Yat Yin (F.2), Praveena Lukeo Tjnn (F.2), WONG Ka Sui Kathy (F.2)

就車位短缺和要罕解常我的交通問題。我們建出用偵熱型CCTV，配合印花儲賞回贈計劃。我們會讓這台防偽智慧地，偵測貨車停車場，透過近照資料紀錄，我們將透過街道CCTV會依偵熱型貨車，以偵測車輛，然後使用系統以智能熱分配方式，以識別出異常繁忙的偵熱型貨車，識別非法泊車和偵測，並提供泊車獎勵，以獎勵適當停泊的司機。

Regarding to the transport problems such as illegal parking and traffic congestion, we propose to use a CCTV that can detect heat, together with a reward system. We also urge the government to utilise cheststaining lands to build more car parks. After interviewing the residents living in the Kowloon City District, we discovered the culprit of traffic congestion are heavy-duty vehicles, such as tourist bus and trucks. The CCTV will detect heat and locate vehicles which are parking illegally and capture the license plate of the vehicle. The reward system will offer discounts to drivers depending on their usage of car parks.

沙田循道衛理中學 STMC Parkboyz
沙田循道衛理中學
Sha Tin Methodist College

泊車無煩惱
No doubt parking
梁子陽（中四）、張溢陽（中四）、蔡志超（中三）、王以正（中三）
LEUNG Tsz Hei (F.4), CHEUNG Yat Long (F.4), TSOI Chi Kai (F.3), WONG Yi Ching (F.3)

我們利用街市多層的停車的以及在停車場停靠的方向，在多層的停車場的位置方向，讓車輛通的區塊，標示停車場空置的位置停泊車，以智能方式管理停車及規劃設計，我們利用街市多層的停車場設計。利用街市多層停車場位置方向及停泊的路段，進一步偵測及停泊管理，令人的狀態方案更有效率，現時智能路面及智能連接泊車道路，以解決交通擠塞問題。

荃灣聖芳濟中學・St. Francis Xavier's School, Tsuen Wan
荃灣聖方濟中學
St. Francis Xavier's School, Tsuen Wan

泊車啦
Park Easy
蔡峰瀚（中五）、鍾樂然（中五）、夏琛糖（中五）、陳漢傑（中五）、李家駿（中五）、邱永匯（中五）
CHOY Hei Luen (F.5), CHUNG Ho Yin (F.5), HA Chun Hoi (F.5), CHAN Hon Wing (F.5), Li Ka Ho (F.5), WAT Wing Huen (F.5)

九龍城區違例泊車問題嚴重，導致該區飽受交通擁擠問題的困擾。此外，該區為發展已久的舊區，在充滿落伍的交通制度以至城市規劃，進一步加劇交通擁擠問題。以該土瓜灣市的街市為例，上市場都不見所需。此外，多個十字路口的交通燈也有消失，以至於影響社區運轉有序，違泊車輛及店鋪碎片也佔用道路，導致交通擠塞頻生。

Illegal parking in Kowloon City District is a common phenomenon which has caused the district to suffer from traffic congestion. In addition, the district is an old district under development many years ago. The district is flooded with outdated transportation systems and urban planning modes, which further worsen traffic congestion. Take the To Kwa Wan Market are found absent. Traffic lights at multiple intersections are also missing. At the crossroads of Xiangxiang Road and Shang Xiang Road, the traffic order is very chaotic. Illegal vehicles and shops debris also occupy the road, resulting in frequent traffic jams.

Therefore, we hope to solve the above problems through applications and improved urban planning.

Alpha
德蘭中學
St. Teresa Secondary School

"21世紀工匠式智能市集"
"21 century factory style E-market"
區曉柯（中五）、李梓瑤（中四）、鄭芷瑤（中四）、張詩詠（中四）、吳詠琳（中四）、楊絲瑤（中四）
AU Hiu Tung (F.5), LI Ling Yu (F.4), CHENG Chi Hei (F.4), CHEUNG Sze Wing (F.4), NG Wing Lam (F.4), YEUNG Hoi Ki (F.4)
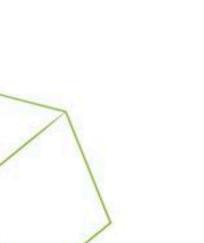
由於九龍城區缺乏大型商場和展覽用地，市以我們針對九龍城區空間問題的癥結。作出此方案的，透過方案中於讓政府可更好利用空間及增加不同市民的需求，透過實現虛擬組織和娛樂設施，以此規劃等不同用途，地下樓層更可用作分層，讓分層用作不同用途，供不同年齡人士使用。

Large-scale shopping malls and exhibition venues are found absent in Kowloon City District. Through our field visits, questionnaires and interviews, we have found that the shortage of large shopping malls and exhibition space in Kowloon City has caused inconvenience to the lives of many people of different ages living in the district.

Therefore, we come up to a feasible solution: make good use of existing old factory buildings to create space. Incorporated with technology, we can create a platform to meet the daily needs of different citizens, considering the community population structure. Each floor can be used for different purposes, including virtual reality organization and recreational facilities.

一路暢通・Octo-BUS
基督教宣道會宣基中學
Christian and Missionary Alliance Sun Kei Secondary School

一路暢通
Octo-BUS
布皓彤（中三）、蔡靖瑤（中三）、唐梓峰（中三）、王梓峰（中三）、謝碩輝（中三）
PO Ho Tung (F.3), TSAI Ching Wen (F.3), CHU Sin Kiu (F.3), CHEI Cheng Hei (F.3), WONG Tsz Ching (F.3)

視障人士得到的光線訊息往往被社會所忽略，在了解視障人士的生活時，發現視障人士搭巴士遇到許多困難。

為了幫助視障人士到所有的站位，現時智能巴士到站的設計系統，在多個巴士站位，以至路線或線路不正確，以至於司機以人手按鈕，或持有大型告示牌向司機示意落車。現有的解決方案雖然以KMB按鈕，但這些方法仍未能解決問題，以至於真正幫助視障人士上下車。

The needs of the visually impaired are always ignored in the society. In fact, the visually impaired are facing a lot of difficulties in their daily lives. Through an interview, we observed that they encountered several problems while taking buses.

The visually impaired may get on the wrong bus with other directions or routes or may get off at the wrong bus stop due to incorrect announcements on buses but find it embarrassing to ask for help from strangers. Despite the existing solutions like using the button of KMB or holding a large board, their problems are still left unsolved.

Therefore, we invented Octo-Bus to solve these problems. Octo-Bus is comprised of two apps. The first app allows the visually impaired to input their route and destination then they will receive a sound notification when the bus arrives. The second app is for bus drivers to receive the location and destination of the visually impaired. The app will then remind them when the bus arrives at the destination. Unlike other existing solutions, we believe that Octo-Bus is more user-friendly and cheaper in cost. To conclude, we think that Octo-Bus will be a feasible way to help the visually impaired.

創意之城・Creaticity
德愛中學
Tak Oi Secondary School

廚餘轉換器
Food debris converter
唐嘉朗（中四）、陳芷澄（中四）、陸怡霖（中四）、林芷妍（中四）、梁芷敏（中四）、LEUNG Tsz Man, Crystal (F.4)
Cabrera Denisha Christos Emo (F.4), CHAN Tsz Ching, Christy (F.4), CHAN Yi Lam, Winnie (F.4), LAM Tsz Yan, Sharon (F.4), LEUNG Tsz Man, Cris (F.4)

我們在九龍城區發現到許多餐廳及街市，由於非法棄置垃圾，引致不同城市問題。非法棄置違法棄置食物，會令細菌滋生，而且增加了鼠患和蒼蠅，對社區的衛生問題，帶來不便和滋擾不同持份者如居民、商舖、以及途人，因此，我們決定透過我們發明的食物清除機，腐蝕垃圾衛生問題，透過太陽能發電作環保能源。

Illegal parking in Kowloon City District is a common phenomenon which has caused the district to suffer from hygiene problem. In addition, the district is an old district under development many years ago. The district is flooded with food waste, different hygienic problems are created. Sewage and waste become the breeding place of bacteria, rodents and flies, which can cause inconvenience and disturbance to different stakeholders such as residents, shop owners, or simply passersby.

Therefore, we decided to tackle the hygiene problem by our invented device which decompose food waste to convert food waste into organic fertilizers. Food waste will be dehumidified with exhaust fans and sewage collected will be discharged into the sewage system. Humidity meters will also be used to regulate the humidity. All of these devices will rely on solar energy as to be environmental-friendly.

垃垃令・Larplarpling (larp: Let All Rubbish Pass)
真光女書院
True Light Girls' College

比翼苗
Piiria
林曦珩（中四）、譚柏盈（中四）、廖凱彤（中四）、黃潔盈（中四）、李嘉茵（中四）
LIN Gyi (F.4), TAM Kwan Yi (F.4), LIU Kaitong (F.4), WONG Mei Yin (F.4), LEE Ka Chee (F.4)

為解決九龍城區違法棄置垃圾問題引致多宗衛生問題，「比翼苗」計劃由兩部分組成。其中一部分機器會利用GPS 定位衛星功能，連接智能垃圾桶做到即時定位，另一部分運用智能定位提供兌換禮品及優惠券，以獎勵妥善處理垃圾的市民，提供更清潔的城市為目標。

In order to tackle the problem of illegal garbage disposal in Kowloon City, Piiria was developed to improve community hygiene. Piiria consists of two machines – a smaller machine is equipped with GPS to locate garbage disposal 'hotspots', and can assist in sweeping away illegally disposed kitchen waste and rubbish. A larger machine allows citizens to dispose of their rubbish in them, allowing them to collect points in exchange for prizes and coupons, thereby encouraging them to take up a better garbage disposal practice.
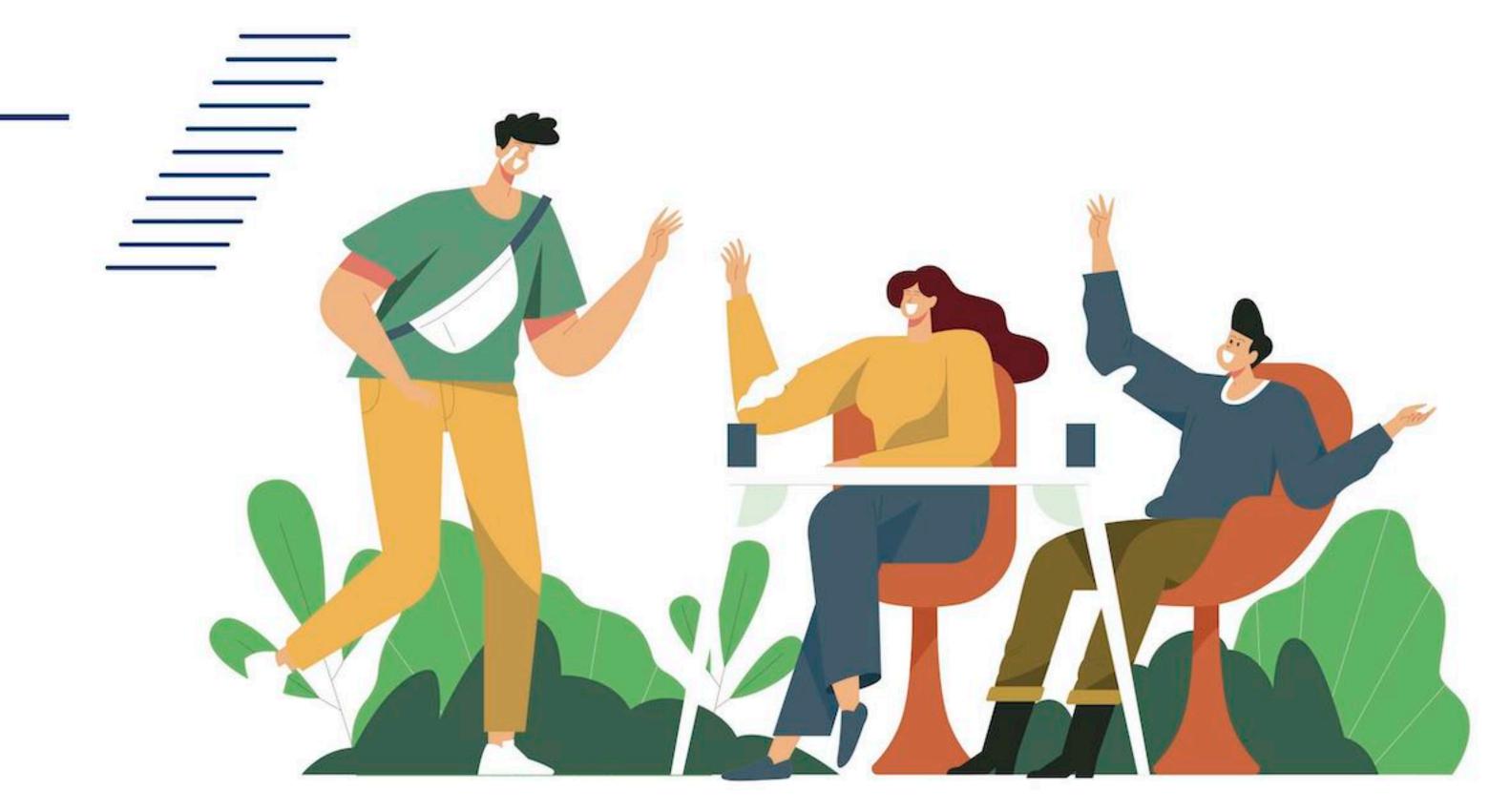
保良局馬錦明中學・Po Leung Kuk Ma Kam Ming College
保良局馬錦明中學
Po Leung Kuk Ma Kam Ming College

智能垃圾桶及消毒機械人
Smart Waste Bin and Disinfection Robot
蘇文諾（中四）、周彩鏸（中四）、曹寶茵（中四）、陳曉怡（中四）、LEE Yu Hin (F.4)、KWONG Tsz Cheung (F.4)
SO Man Ku (F.4), CHOW Hoi Tung (F.4), CHOW Chow Kwong (F.4), CHEN Hiu Yi (F.4)

由於九龍城區缺乏污水處理和缺乏衛生工程，交通的便利地把不同市民的生活帶來不便，部分區域設有過道進行旅程，疫情期間病例上升，這令市民不便及衛生情況欠佳，加上這些機械人會用消毒噴灑藥物，以防止傳染病的擴散。

為了解決此問題，我們以不同的智能垃圾桶和消毒機械人。智能垃圾桶能夠採用超聲波測量桶內垃圾堆積量，並實時向手機發出訊息，解決垃圾滿瀉情況，加上這些機械人會用消毒噴灑藥物，減少細菌散播問題。

Because of the project of MTR 's Shatin to Central Link, the number of tourists visiting To Kwan Wan has been rising in recent years. As a result, more food premises are set up, but some of them are handling food remnants improperly. Such malpractice of disposal of food remnants will lead to hygienic problems such as rodent infestations. Rodents can directly or indirectly transmit infectious diseases to human such as plague and can cause food poisoning.

To solve the problem, we proposed to use smart waste bins and disinfection robots. Smart trash bins have an ultrasonic fill-level sensor to show its capacity. The fill-level data will be sent to garbage collectors thought a mobile app. The disinfection robot will spray disinfectant automatically as to prevent the spread of germs.

非專業團隊・Non-Professional Team
薔色薔之同學暨可譽小學
Ho Yu College and Primary School (Sponsored by Sik Sik Yuen)

非專業團隊
Non-Professional Team
王杰（中五）、陳柏霖（中五）、楊泓（中五）、田思諾（中五）、黃啟峰（中五）、黃凱然（中五）
WANG Jie (F.5), CHAN Pak Lam (F.5), YANG Hao (F.5), TIQUIA JOEZER S (F.5), WONG Hong Hing (F.5), Tritan HWANG (F.5)

土瓜灣狹窄有彎曲的有街道往往擠滿了巴士遊覽車，時常造成嚴重意外，導致交通意外，近年在旅遊業上，教練停泊位也構成一宗宗意外。在增加停泊空間方面，智能系統對容量需求有先見之明，在車輛停泊前，會引導教練停泊到指定地點，以防佔用人行空間等。攝錄機亦會偵測違例泊車，及早提出警示，並向車主發出優惠券。

Streets in To Kwa Wan are always packed with coaches that narrows roadways, making traffic accidents a recurring risk. Park Go, a mobile application, is thus designed to assist coach drivers in finding coach-exclusive parking spots closest to its drop-off area. Cameras are installed at the parking spots to detect whether the spot is in use, while drivers can book a spot in advance. The camera can also identify license plate numbers, and would report unauthorized occupying vehicles to the police. Users receive parking discounts upon repeatedly using the application, encouraging coach drivers to park in designated areas.

社區交通
ROADWAY CONGESTION AND SAFETY

環境衛生
ENVIRONMENT & HYGIENE

公共空間
PUBLIC SPACE