



臻善圈決賽隊伍提案摘要 Project Summaries of WIT Finalists

## 以3D模型與動畫應用在技術培訓 3D Models & Animations in Technical Training

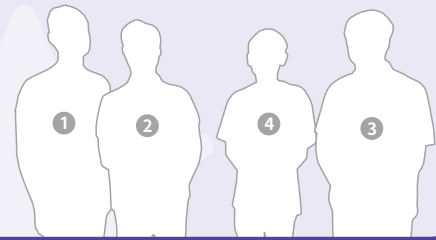


### 圈員資料 Team's Information

成立日期 Date of Team Formation 06/2023

圈長 Team Leader /  
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圈員 Team Members 秦立恆 Chun Lap Hang, Paul | 2  
王國榮 Vuong Kwok Wing, Ian | 3  
何嘉福 Ho Ka Fuk, Ken | 4

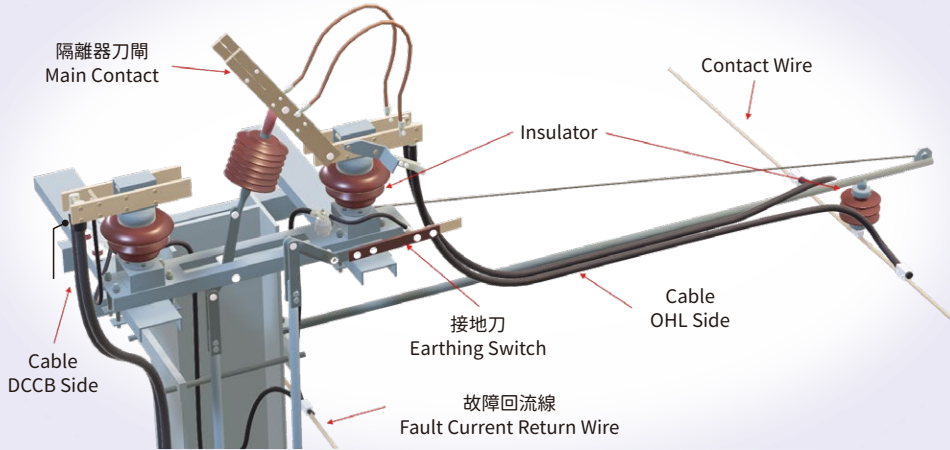


## 問題剖析 Problem Analysis

- 傳統的培訓以課堂為主，採用單向及被動的教學方式，對於Z世代所追求的學習模式南轅北轍，使他們難以投入其中。
- Z世代追求自主學習新知識，尤其偏好互動性強和科技驅動的學習模式，透過模擬實戰以獲得個人化的學習體驗。
- 面對傳統培訓模式與Z世代的學習模式下的落差，公司需要引入電子學習平台和虛擬實境等創新訓練技術，吸引並培育更多Z世代員工。
- The one-way, passive nature of conventional classroom training conflicts with the learning style that Gen Z prefers, making it difficult for them to stay engaged.
- Gen Z pursue self-directed learning of new knowledges, preferring highly interactive, technology-driven approaches that offer personalized learning through hands-on simulations.
- To close the gap, the company has to introduce innovative technologies to better engage and develop our Gen Z workforce, such as e-learning platforms and virtual reality for training.



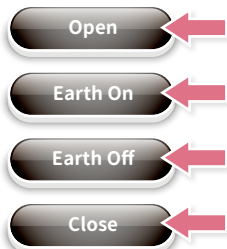
## OHL Manual Isolator (Main Component)



三維模型有效地展示難以在現場觀察及錄影的機械操作。  
3D model effectively illustrates mechanical operations that are difficult to observe on site and capture on video.

- 培訓模式數碼化：  
我們靈活地運用數碼平台，不僅讓學員便利取得培訓材料，更能隨時實現大量的培訓需求。
- 迎合新世代學習風格：  
為迎合Z世代的學習偏好，我們開發有趣且引人入勝的3D模型及動畫作為培訓工具，以簡短的視象形式呈現複雜的技術知識，使學員能夠更輕鬆學習之餘，同時提升記憶。
- Digitalizing the Training Model:  
By leveraging flexible digital and mobile platforms, we provide trainees with convenient means to access the training materials while enabling us to seamlessly manage large-scale training demands.
- Aligning with Gen Z's Learning Styles:  
To align with Gen Z's learning preferences, we developed engaging 3D models and animations. This approach transforms complex technical knowledge into "bite-sized" visual content, engaging trainees for easier learning and improving knowledge retention.

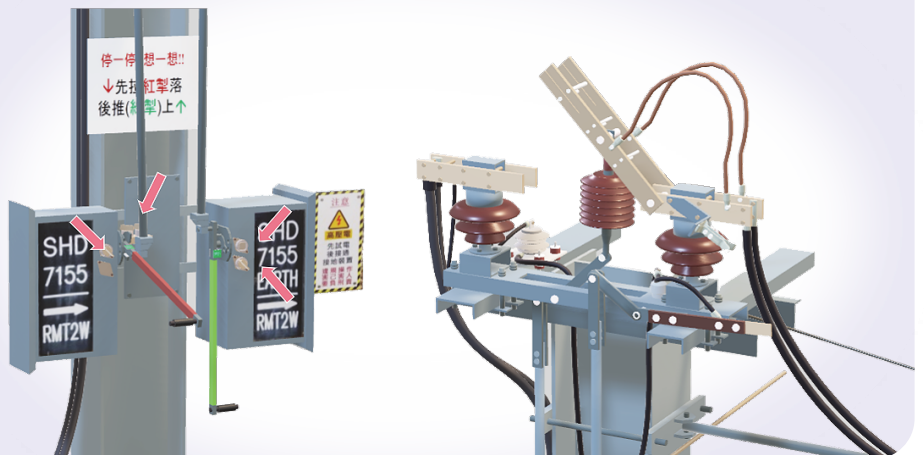
### Animation Control Panel



PowerPoint示範清楚地展示在學員的完全掌控下，同時操作下方手動把手及上方隔離器的情况。

The PowerPoint demo clearly illustrates the simultaneous operation of the lower manual handle and upper isolator under trainee's complete control.

### OHL Manual Isolator Animation





三維動畫清晰地捕捉操作的每一個步驟，增強內容並提升學員的視覺記憶。

3D animation clearly captures every step of the operation, enhancing content and boosting visual memory of trainees.



## 總結成果 Summary of Achievements

### 有形得益

- 由於3D動畫開發項目由OTD內部開發，較承辦商的預算節省約二十多萬元，而整體培訓課程的開發成本大幅降低約83%。

### Tangible Benefits

- By developing the 3D animation project in-house, OTD achieved cost savings of approximately \$200,000 compared with contractor's budget, and drove down the overall development cost of training courses by about 83%.

### 無形得益

- 在中電、港燈及深圳4線在內等團體的參觀活動中展示我們的創新願景和培訓計劃，有效提升公司的企業和OTD的專業品牌形象。
- 學員透過互動式3D模型學習複雜的機械操作流程，能夠提升員工的學習效率及知識吸收。
- 由內部開發的設計確保了內部敏感信息的機密性，並有效保護企業的知識產權，防止核心技術洩漏。

### Intangible Benefits

- Showcasing our innovation vision and training programs during visits by external parties like CLP, HKE and Shenzhen Metro Line 4 (SZL4) effectively enhances the corporate image and professional image of OTD.
- Using interactive 3D models to learn the complex mechanical operations and procedures improves employees' learning efficiency and knowledge retention.
- This in-house developed design ensures the confidentiality of sensitive information within the organization, effectively protecting company's intellectual property and preventing the leakage of core technology.