Technology 科技

# Intelligent size adjustable mannequin

## 智能人體模型
## 隨意調節尺寸

*Just one touch on the computer will transform the shape of "i.Dummy" from slim to plump.*
*在電腦上輕輕一按，「i.Dummy」的體型便由苗條變為豐滿。*

**Watch the video**
**觀看影片**

*From left: Dr Ameersing Luximon, Dr Allan Chan Chee-kooi and Mr Steven Peng Sixiang*
*左起：Ameersing Luximon博士、陳志駒博士和彭思翔先生*

The apparel and garment industry used to rely on fixed-sized dummies for designing and fitting different sizes of products before mass production. Thanks to the PolyU-developed "i.Dummy", now one single mannequin can fit various sizes.

服裝和成衣業界向來在大量生產服裝產品之前，都倚賴固定尺寸的人體模型來設計和嘗試不同尺碼的產品。理大研發的「i.Dummy」則可利用一副人體模型調節出不同的尺碼。

Dr Allan Chan Chee-kooi, Associate Professor of the Institute of Textiles and Clothing (ITC), together with team members Mr Steven Peng Sixiang and Dr Ameersing Luximon, has developed the revolutionary "i.Dummy" which can re-shape its torso, neck and upper arms to fit various sizes and dimensions as well as customized measurements within eight seconds. This will streamline fitting and production processes of the industry.

This breakthrough is unique in the sense that all changes in "i.Dummy" sizes are three-dimensional, varying in width, thickness and length. The changes are made simultaneously and automatically through a user-friendly graphical user interface on a computer or a smartphone via Bluetooth. It can also rotate automatically for viewing in 360 degrees, so that every angle of clothes fitting can be assessed. It provides a highly realistic simulation of body parts including shoulders, waist and hips, and accurately captures body length.

In developing "i.Dummy", the researchers collected massive amounts of anthropometric data and information from the literatures of American, European, Japanese and Chinese populations, and from the ITC's 3D Body Scanner. In addition, mechatronics has been applied on the platform of mannequin development.

With this robotic mannequin at their disposal, clothes makers could allow customers to input their measurements on computer for fitting across geographical boundaries. "i.Dummy" will also serve as an excellent education and training facility for students and apprentices of fashion design and pattern development alike.

理 大紡織及製衣學系副教授陳志駒博士與團隊成員彭思翔先生和 Ameersing Luximon 博士發明了革命性的「i.Dummy」，它可於八秒內調節軀幹，頸部和上臂的尺寸，更可根據輸入的指定數據而改變尺碼。這定必有助優化行業的試身及生產程序。

「i.Dummy」獨特之處在於其體型的調節是三維的，只要透過簡易的電腦圖形使用者介面或智能手機藍牙技術，其寬度、厚度和長度都能同時自動改變。它亦能自動旋轉，供用家從360度品評服裝。它的仿真度極高，能細緻地模擬身體各部位，包括肩、腰、臀部和身體的長度。

在開發「i.Dummy」的過程中，研究人員搜集了大量有關歐美、日本和中國人口的數據和文獻，還結合學系的三維人體掃描機的資料，再把機械電子工程學應用於研發人體模型技術的平台上。

有了機械人體模型，衣服製造商就能讓顧客在電腦輸入所需的尺寸後，即可跨越地域界限進行試身。對時裝及紙樣設計學生及學徒來說，「i.Dummy」亦絕對是理想的教學及練習工具。❖