

Problem : **Augmented Reality based apparel fitting.**

Multi-sensor body scanners combined with new algorithms and social media technologies have started a revolutionary shift away from the classic desktop paradigm and into the direction of intuitive, "natural interaction" where people interface with the technological world through hand gestures, speech and body language. This article reviews recent examples of Virtual Fitting Rooms (VFRs) and supporting technologies which facilitate the shopping experience by letting customers to try-on apparel and/or mix-and-match accessories without being physically present in the retail shop. These platforms are not only powerful decision tools for the on-line shopper, but also contribute to the fun factor of in-store shopping. Using depth scanning techniques, VFRs can create accurate 3D models of shoppers and meaningfully query retail digital catalogs, filter out non-fitting items and allow customers assess the styling and matching aspects in real time. In addition, omnipresent social networking features allow sending photos or videos of the shopper wearing the apparel for quick feedback. The quality of service provided by current VFRs is sufficiently high to boost sales but also minimize returns due to improper fit.

Aim: A Virtual Trial Room application using Augmented Reality which allows a user to try on virtual clothes. The user pose and depth is tracked using the Microsoft Kinect sensor and virtual clothes are aligned with the tracked user. The clothing moves and folds realistically and the lighting intensity of the cloth render is adapted to match ambient lighting conditions. The presented application improves on related augmented reality application by adding full user pose tracking and by using 3D clothing models combined with cloth simulation instead of 2D images.

System uses a depth camera to capture the figure of a user standing in front of a large display screen. The display can show fashion concepts and various outfits to the user, coordinated to his or her body. Thus, a "magic mirror" effect is produced. Magic mirror-based fashion apparel simulation can support total fashion coordination for accessories and outfits automatically, and does not require computer or fashion expertise. This system can provide convenience for users by assuming the role of a professional fashion coordinator giving an appearance presentation. It can also be widely used to support a customized method for clothes shopping.

Input: 3D human mesh; Garment color/texture and shape; target Human body silhouette.

Output: 2-D frontal view; 3-D preferable with near-frontal angles.

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<http://www.normalfutu.re/>

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<https://www.youtube.com/watch?v=nWcGhuX6N7w>

<https://www.youtube.com/watch?v=QHAYotLuqtY>

<https://www.youtube.com/watch?v=RCM0u2tBI5E>