

A Review on Virtual Smart Dressing Room

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Abstract-: *In 21st century shopping is the integral part of human life style. People are buy cloth online but disadvantage of this people are not to try cloths, so there is problem of fitting. To our come this disadvantage, We present a virtual try-on system - EON Interactive Mirror - that employs one Kinect sensor and one High-Definition (HD) Camera.We first overview the major technical components for the complete virtual try-on system. We then elaborate on several key challenges such as calibration between the Kinect and HD cameras, and shoulder height estimation for individual subjects. Quality of these steps is the key to achieving seamless try-on experience for users. In this paper, we review existing systemas compare to our proposed system.*

Keywords: *Virtual try-on, Kinect, HD camera, OpenNI, Kinect for Windows Augmented Reality,*

I. INTRODUCTION

In recent years, the number of users of online shopping has increased. When asked where they would buy clothes. The second largest number of respondents say Internet mail ordering, 61.2 percentages of people use it. One disadvantage of net shopping is that there are times when size errors occur. This is because the product cannot be actually picked up and tried on. Although the size is described in the shopping site, it is hard to understand for amateurs. There are two types of existing simulated try-on systems. One is accurate, but requires a large device. The other one can be done by one camera, but it is of poor quality.[1]

The task of trying clothes in stores is one of the most time consuming tasks today. Usually long queue and time required are not acceptable, for example when standing in front of full fitting rooms. Additionally time is lost when changing clothes many a times. Reducing this time and helping people to put on a large collection of garment is reduced time was a relevant motivation for this project. Using modern technology - hardware as well as software - the try-on experience can be exponentially improved. Even in web shops people are very sceptic buying clothes because an option for try-on of clothes is not available and also the feel of clothes cannot be judged. Reducing return rate of cloths. [2]

II. LITERATURE SURVEY

Markerless human motion tracking is a long-standing problem in computer vision. With the recent advances in depth cameras and sensors, especially the Kinect sensor [2], research on human skeletal pose tracking has made great improvements. Our system builds on top of these techniques by utilizing publicly available SDKs that incorporate some of these state-of-the-art algorithms. Kinect has also enabled various interactive applications that are creative and fun, Most relevant to our Interactive Mirror is the ever-growing virtual fitting room systems available on the market, such as Fitnect [1] and TriMirror [4]. However, we have not been able to find any technical details of these systems. From their demo videos alone, the major difference between our system and TriMirror, for example, is that we do not simulate clothes in our system. We simply render the deformed clothes on top of the user's video stream, and this requires a high-quality calibration between the Kinect and the HD camera.

Sr. No.	Author Name	Paper	Publish Journal
1	Bhalekar Sourabh, Chitte Darshan, Dhamal Hemant	Implementation of virtual dressing room using Newtons Mechanics	IJARCSSE
2	Jaychand Upadhyay, Divya Shukla, Nidhi Patel	virtual Makeover and Virtual trial Dressing	IJIRCCE
3	A.A.Shaikh, P.S.Shinde	A review on virtual dressing room for e-shopping using Augmented Reality	IJSCE

III. PROBLEM STATEMENT

The aim of the thesis is to create a Virtual Dressing Room that realistically reflects the appearance and the behavior of garment. It should further adapt to specific bodies of different persons depending on their body measurements. This will be one of the main challenges since the pieces of cloth should correctly fit to as many persons as possible independent of their individual dimensions.

Drawbacks of Existing System:

- 2D color image and a distance information. In addition, tracking a skeleton model to users body is realized using these information.
- The drawback of this approach are the algorithm is non trival also the performance is important, so data access and memory usage must be optimized.
- Users can't view the clothing animation on various angles

IV. PROPOSESED APPROACH

The objective of our augmented reality dressing room is to allow users to try on clothing virtually in front of a large vertical screen to quickly see how a piece of clothing its physically and aesthetically. In this way, the customers can try on many more articles of clothing in less time. The feeling after virtually wearing an item should help to affect the decision to buy it or physically try the item on. Most approaches based on body tracking map a 2D texture as a cloth on the user's body. Hence, when the user moves around, the clothing does not accurately capture the user's position and movement, causing several unaesthetic effects. To achieve a more realistic simulation of the process of dressing, we based our approach on the adoption of a 3D model of the clothing. This approach has several advantages. First, it does not make any assumption on the user's dimensions (e.g., body shape, height, width, length of limbs) from the data captured by the Kinect and thus does not require a previous 3D scanning.

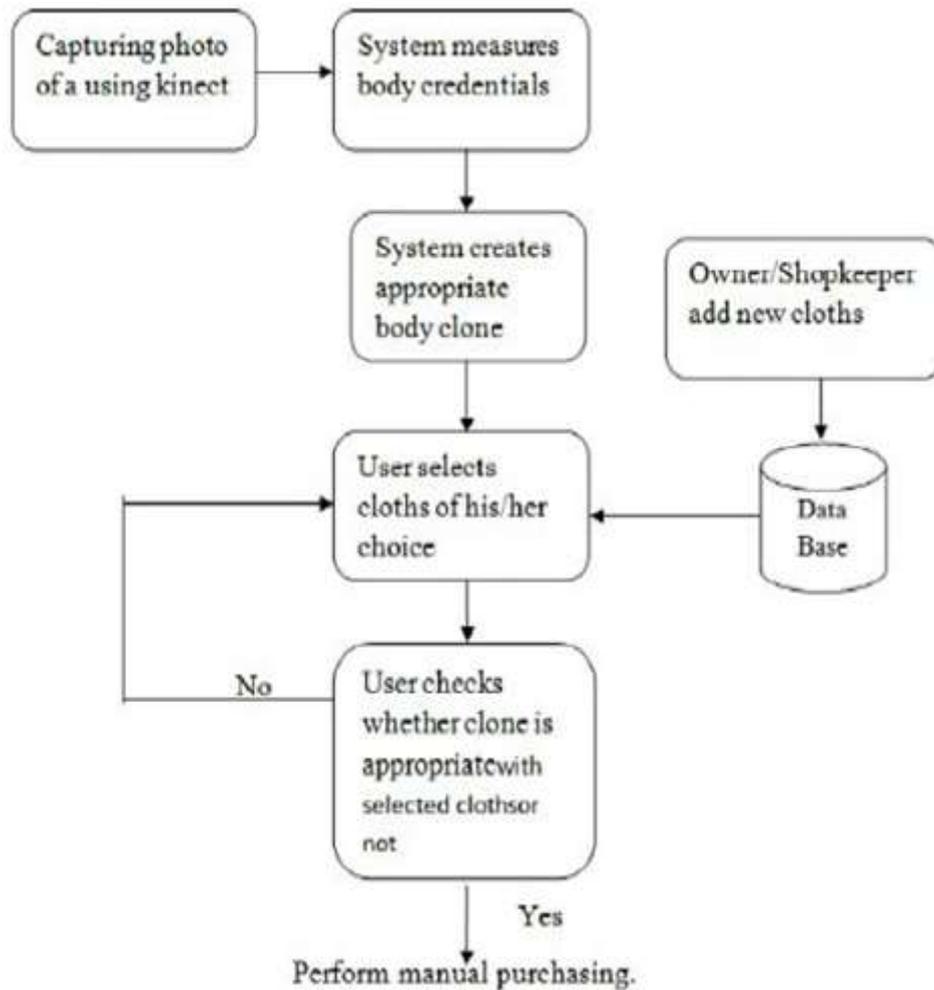


Fig: 1-System Architecture

Advantages of System

- **Women Safety:** Now a days the most issue is women safety these system is f or women’s because in many dressing rooms there is possibility have an spy cameras so avoid that situation are system is useful.
- **User friendly:** The system is user friendly anyone can easily interact with system.
- **Portable:** This system is portable we can easily move from one location to another.

CONCUSION

This system is also helpful for increasing the sale because customer get best trails and save the time. Within the help of this system customer are fully satisfied. This system is beneficial for customer as well as saler. By this method to produce a Virtual room that realistically reflects the looks and also the behavior of garment. It should further adapt to specific bodies of different persons depending on their body measurements. This will be one amongst the most challenges since the items of fabric ought to properly fit as several persons respective of individual dimensions.

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