

Augmented Reality Based Interior Design Application

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Abstract: *Augmented Reality (AR) is an advanced version of the real-world visual acuity, acquired through the use of digital visuals, sounds, or other technically motivated sensors. This is a growing trend among companies, especially those involved in mobile computing and business applications. Simply put, it create a virtual object and display it in 2-d dimension. Our report is based on Augmented reality came into picture when there is need of furniture and you cannot decide how it may look like when you bought this at home .Our app is very simple to use, it is user friendly. It will create a object in phone similar to the furniture. And display it in your phone. User may experience real time virtual Object and minimize the problem of returning, ones bought.*

Keywords: Augmented Reality

I. INTRODUCTION

Augmented reality (AR) is one of the biggest technology trends right now, and it will be huge as AR-ready smartphones and other devices will be easily accessible worldwide. AR has allowed us to see the real-life scene ahead of us — the moving trees in the park, the dogs chasing the balls, the kids playing soccer — with the digital addition covered over it. For example, pterodactyl may be seen sitting in trees, dogs may be confused with their cartoon counterparts, and children may be seen kicking an unknown spacecraft on their way to hit a target.

With advances in AR technology, [7] these models are no different from what may already be available on your smartphone. Snapchat lenses, apps that help you find your car in a crowded parking lot, and a variety of shopping apps that allow you to try out clothes from home.

Perhaps the most famous example of AR technology is the Pokemon Go mobile app, which was released in 2016 and soon became an inevitable feeling. In the game, players discover and photograph Pokemon characters in the real world — on your street, in the fountain, and even in your bathroom.

So, this technologies can be used in many field. So, we choose the field of furniture and try to solve problem related to them. Seller face many difficulty as furniture is not a small object than can be transfer one place to another to see how it may look at that place for customer satisfaction. Augmented reality is the best way to solve this problem. By creating virtual object in app and displaying in 2-Dimension.

1.1 Literature Survey

Mr. G. Praneeth Reddy and Mr. M. Dhana Prasad have made their project on Furniture Layout Application Using Augmented

Reality [4]. They have done very extraordinary work and published a report. As per the report as the customer buys different types of furniture online, but online only shows image and cannot be determined by room size. Or there are applications available based on advanced facts they do not deserve live processing and take more time to process location and some are adjusted to a specific image plane. So, to win that he they can use this app to check if the furniture is repaired or not can be installed in a customer's residence such as a home or office using realistic images. His app is a step towards this, allowing users to view a given 3D model – virtual the resemblance of visible furniture without the distortion of the symbols - which

can viewed and edited in real time using our real. This study proposes a new way to use Augmented Reality technology in furniture, where the user can view the visual furniture and link to the 3D visual furniture data using a Flexible and flexible user interface.

The proposed program uses Marker-less Augmented Reality as the basis for user development experience and a better view of things. A little marking is a way to stop tracing - the determination of the position and position of an object in its place. This a very important feature in augmented reality (AR), which makes it possible to know the field of view and user perspective - allowing the surrounding environment to respond appropriately or the placement of unpopular real content for that we see in conjunction with the real world. While based on the tag Motion tracking methods use some optical markers, with less location tracking doing they do not need, which makes it a flexible approach. It also avoids the need for adjustment the place where the fiducial markers are placed.

1.2 Existing System

Augmented Reality is a promising technology that makes our lifestyle more modern and easier. [5] Compelling technology is currently being used by many industries including, the software industry, automotive, construction, marketing and much more. Apart from this, another industry that uses this technology to maximize its potential is the Furniture Industry.

The furniture industry is becoming more and more modern and modular day by day. Manufacturers use advanced technology to carry out some of the most complex designs and designs the best piece of furniture. People use a variety of augmented reality based application furniture and systems to provide the best shopping information to their customers.

IKEA Place and Wayfair [3 , 6] are the two type of app using technologies of AR to sell their furniture. They are leading brand which solve the issue of customer and make app best suitable for customer .But this app is not well famous and use by many people ,as awareness problem may arise. Furniture retailers use AR web services to create visual product catalogs, giving their clients the ability to explore products online, within context.

The highly skilled team at Zeal AR has been able to develop a new AR AR web service that is tailored to the needs of the furniture industry.

II. PURPOSED SYSTEM

2.1 Purpose

As we don't visualize the virtual product through a app. Problem related to returning order may increase and buying from home the furniture will not be the case. As user cannot have that much imagination that he/she may can imagine the furniture how would be look like at their home. As furniture is not a small toy that can be move easily without any problem. As there is also a problem of awareness people has trust issue. [1 , 2]. It may take time for this problem to get adapted. Online shopping also have taken time to be look like save for the people and people started purchasing. We can relate online shopping with the Augmented Reality. From Augmented Reality imagination (How the furniture will look like at their home) will have a positive point that can be solve. User can choose furniture in much better way and can cancel the problem of dots. The second problem of return of order may solve by this. Awareness can done by advertisement, one to one inquiry solution, making app more user friendly. All this may result into much better way for people relaying online than offline.

2.2 Scope

As people are now a days are more comfortable in online. Their may be a chance that it may people are more buying online then offline. Store owner may get benefited by this technologies, they can sell their product not only in their city but anywhere all over the world in future. And user sitting anywhere can buy their product.

III. SCREENSHOT AND DIAGRAM

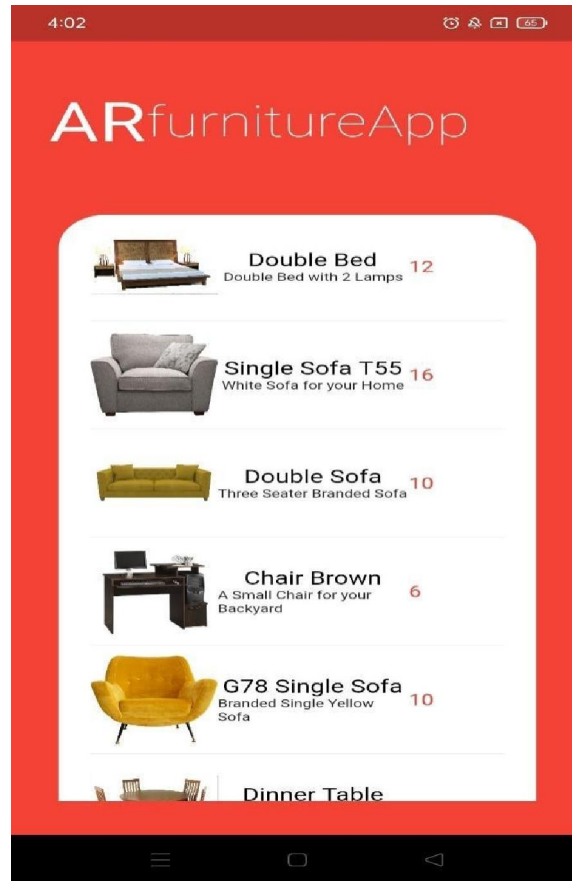


Figure 3.1.1: It is home page where you can select the object (Furniture).



Figure 3.1.2: As we selected a study table, it is visible in the room



Figure 3.1.3: As we select a sofa, it is visible in the room

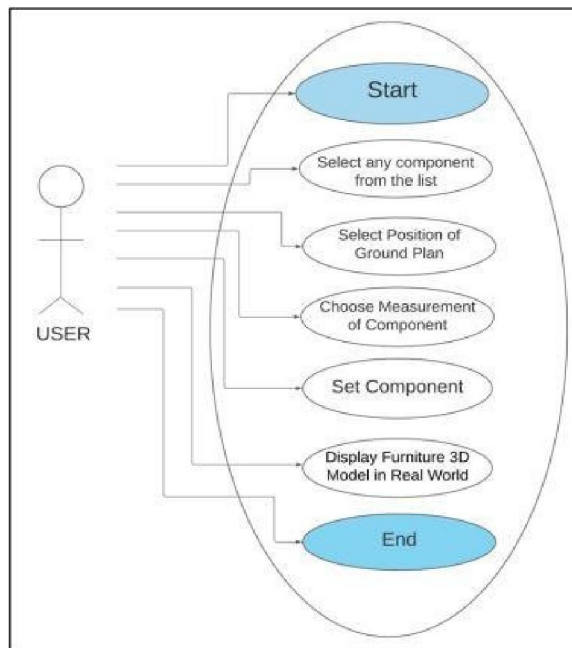


Figure 3.2.1: It working block diagram of the app, How the app work it visible in the images.

IV. CONCLUSION

Because of these frameworks the client will come know how the home building will take care of it buying and setting up furniture.[8] This the proposed framework will allow the client to experiment in many combinations of objects for all purposes as well without moving furniture things. This will help the consumer in deciding how to set up furniture in their house customer. The customer will have a careful idea of that how to set up a workplace, house and any other place required for use. Client will not have to go outside of their home and buy furniture at their store. Sitting at their home they can buy their furniture. Store owner can also sell their product outside their city. They can also make maximum profit.

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