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Augmented Reality Implementation In House Type Design Aplications With Unity 3D Based On Android In Griya Medan Marelan Housing

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Abstract

Augmented Reality (AR) is an environment that incorporates 3D virtual objects into the real environment. This research will incorporate Augmented Reality (AR) technology into a marker. From the marker will be used as input, then this application will detect marker so that the type of 3D house in Griya Medan Marelan housing will appear just above the marker as if it looks real and display the existing furniture inside the house displayed through Android smartphone. The conclusion of this research is by using Augmented Reality (AR) application that can simplify Griya Medan Marelan management in doing promotion and simplify the buyer in determining the desired type of house by looking at the type of house in 3D and information from each type of Griya Marelan house and can change the user paradigm regarding other functions of the smartphone. Therefore, the need for new innovations is useful as an attractive media campaign

1. INTRODUCTION

three dimensions then project the virtual objects in real time. According to (Gorbala and Hariadi, 2010) Augmented Reality (AR) is an environment that incorporates 3D virtual objects into the real environment. Augmented Reality allows users to interact in realtime. The use of Augmented Reality has now expanded to various aspects of our lives and is projected to experience very significant developments. This is because the use of Augmented Reality is very interesting and makes it easy to use in doing things, such as the example of a home sales marketing strategy to consumers.

2. RESEARCH METHOD

2.1 Field Research

Data collection in this study was carried out through observations onvarious books, journals and data obtained in the form of building blueprints The house is related to the design form of the type of house

2.2 library research

This library research is carried out by discussing, summarizing, and draw conclusions from reading sources such as books, journals and internet related to the analysis and design of applications on
this research, to obtain materials that can scientifically used as a basis for compiling research

3. RESULT AND DISCUSSION

According to Ronal Azuma in research conducted by (Asfari, Ully et al. 2012) explains that augmented Reality (AR) is a technology that can describe and combine the real world and the virtual world. This SketchUp application is easy to use and operates in a 3D.

3.1 environment whether it's sketching from projects and the shape of buildings, houses, cars, etc. in 3D. Next is how to create 3D objects in the SketchUp application

Figure 3.1 Display of the SketchUp Interface

3.2 After entering the interface page in SketchUp, we can make 3D home objects using tools in the SketchUp application as shown below:

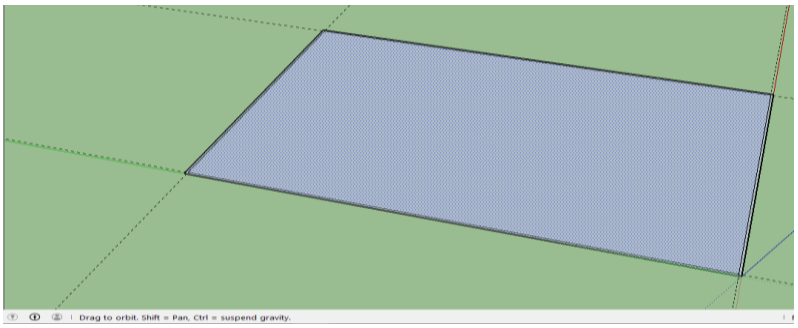

Figure 3.2 Making Basic Objects for Home Design

To make a floor plan and parts of the house as a whole can be seen on the display. Like the picture

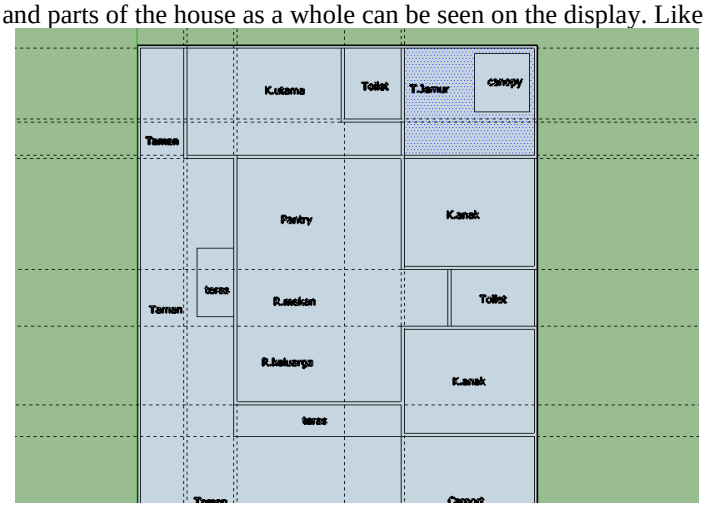

Figure 3.3 Design of Making Floor Plans at Home

After completing the design of the floor at home, to make the 3D frame of the house frame click the push / pull icon (cube image with the red arrow up) click and hold (drag and drop) then drag up. Like the picture

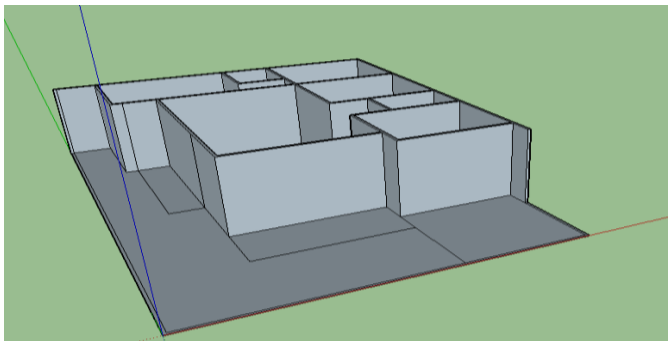

Figure 3.4 House Skeleton Design

After finishing gluing the doors and windows neatly. Make a clothesline and some interior designs in the house such as sofas, beds, dining tables and so on. Then, make the texture of the house as attractive as possible. To give color, click the menu bar: click Windows material. That way, home objects look more real. Can be seen in the following picture

Figure 3.5 Looks at Home Interior Design

After making home interior design, and giving the texture then enter into the technique of making a house roof. The roof of the house usually juts out. Please add a horizontal line (straight to the side) and a vertical line roof (straight up). Then use the puss / pull icon to push the roof up. And the left wall inside, do the same thing on the right roof, then you can see the front roof jutting out. Use help lines so that the roof position can be symmetrical. When finished, delete the help line. Can be seen in the picture below:

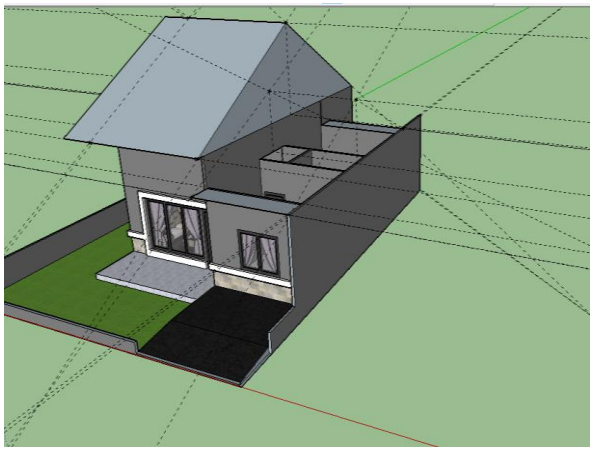

Figure 3.5 Design of Roof Top Houses

4. CONCLUSION

With the design of Augmented Reality applications in the design type of house in Griya Marelan housing, can make it easier for buyers to get an overview of the type of house along with information on the house at Griya Marelan housing complex

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