



InDez

An augmented reality-based application

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1.Introduction

This is an augmented reality-based android application that will be used for interior designing and decorating. Our application will provide users the option to drag and drop augmented furniture in their room which they are able to see using their phone's camera. Then users can select the color and texture of furniture and wall, change room lighting.

2.Scope of The Project

Project Goal

Developing an augmented reality-based android application for general people who want to design their homes. Users can visualize what the room will look like after redesigning the room and can choose the best combinations of furniture, even the color on it for that room.

Features

- Users can drag and drop augmented furniture in their room which will be able to see using phones camera
- Users can change the position of the furniture
- Users can change the size of the furniture
- Users can change the color of the furniture
- Users can change the color of the walls and the floor

Out of Scope

- Users can't change the texture of the furniture
- Users can't make their own furniture
- Users can't also take 360 degree photos of their room.

Tools & Technologies

- Unity
- ARCore
- Vuforia
- C#
- 3D models

Deliverables

- SRS document
- Android Application

3. Motivation

Furniture placement in the room can be a very confusing task. For a better suggestion of orienting furniture, one can hire interior designers. The interior designers visit the house and make a plan for that house. But a lot of the times things don't look exactly the same as what their designer has explained to them. For this reason sometimes designers have to change their plan after it has already been executed. Moreover, most people can't hire designers for their house orientation as designers are expensive to hire. For these reasons we intended to build an augmented reality base android application by which anyone can place augmented furniture in his/her rooms by using phones' camera and see what it will look like if the user actually places those furniture.

4. Work Plan

- Analyzing and Specifying ideas : Weeks 1-3
- Learn Unity and C# : Weeks 3-5
- Prepare SRS Report : Weeks 3-8
- Apply Ground Plane Detection for placing augmented object on floor : Weeks 4-7
- Add transitioning, scaling, rotating characteristics : Weeks 7-10

- Add color and texture edition features and other features : Weeks 11-14
- Test and fix bug : Weeks 15-16