AR Application for Architectural Projects

AR Project Idea Pitch, Team 9

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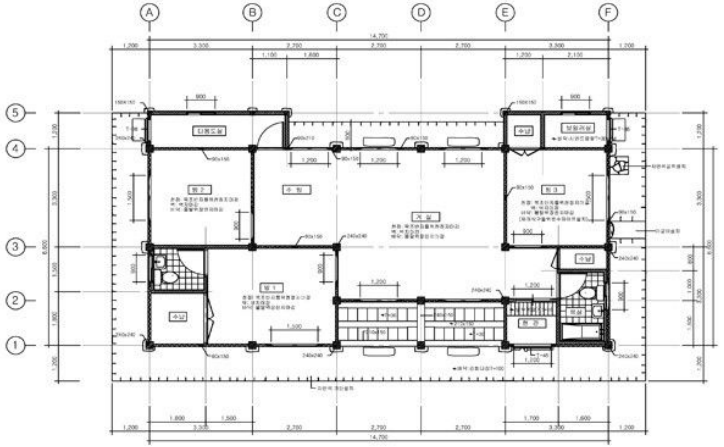
Introduction

- There are needs in architectural projects to visualize floor plans in three dimensions.
- The architects have had to create models by hand or rely on additional 3D graphic works.
- We propose an AR application that shows a 3D model based on flat blueprint.



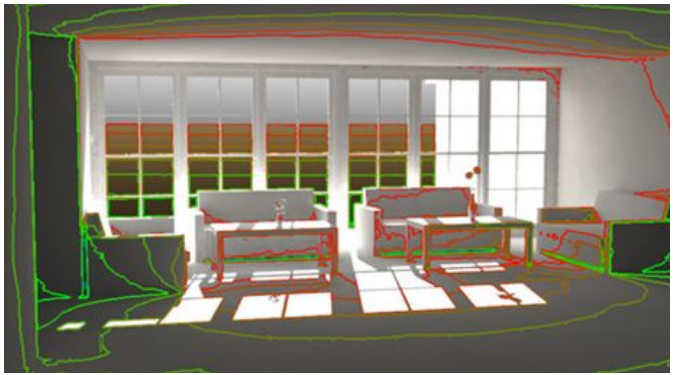
Background

- The difference between the architectural design desired by clients and the design envisioned by architects or interior designers.
- Creating models by architect's hand or using 3D graphic tools to create models is a costly and time-consuming task.
- **How about providing a 3D model that turns imagination into reality based on the design blueprint?**

Idea & Key features

An AR application that displays a 3D model based on flat blueprint

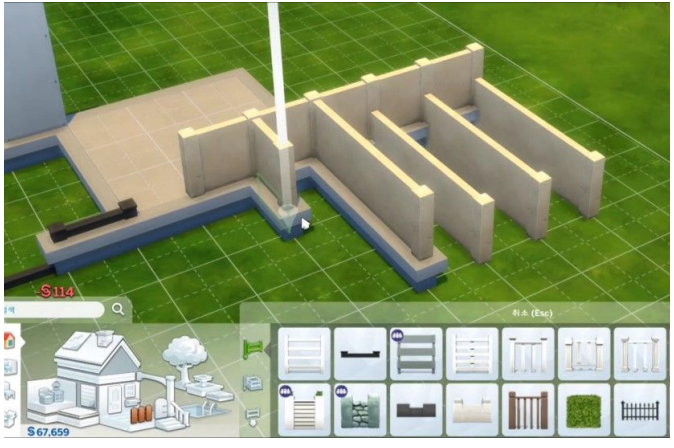
- It recognizes blueprint template and shows it as a 3D model.
- It allows users to adjust the light source to simulate sunlight and visualize indoor lighting conditions based on the position of the sun.



Idea & Key features

An AR application that displays a 3D model based on flat blueprint

- Users can examine the interior designs by placing and moving furnitures.
- Users can change the texture of the objects such as walls, furnitures, etc.



Idea & Key features

An AR application that displays a 3D model based on flat blueprint

- It can be used when real estate developers need to provide building models to people at a conference.
- It can be used when architects need to explain their design to clients.

Motivation for using AR

- Using AR, flat drawings can easily be transformed into 3D models accessible to everyone.
- Even if the blueprints change, the application can still be used without modification.
- Since AR apps only require an Android device, we can provide service to a wide audience.

Schedule

- Planning and design: ~ Mar 31
- Basic implementation: ~ Apr 17
- Complete development and Testing: ~ Apr 23
- Trailer video and Documentation: ~ Apr 28

Work division

- **Programming (GUI & AR Interaction)**
  - Bakhromov Bakhtiyorjon
  - Jaewoong Kim
  - Seongbeom Park
- **3D Modeling**
  - Peennanen Teemu
- **Testing and making trailer video**
  - All together

Thank you