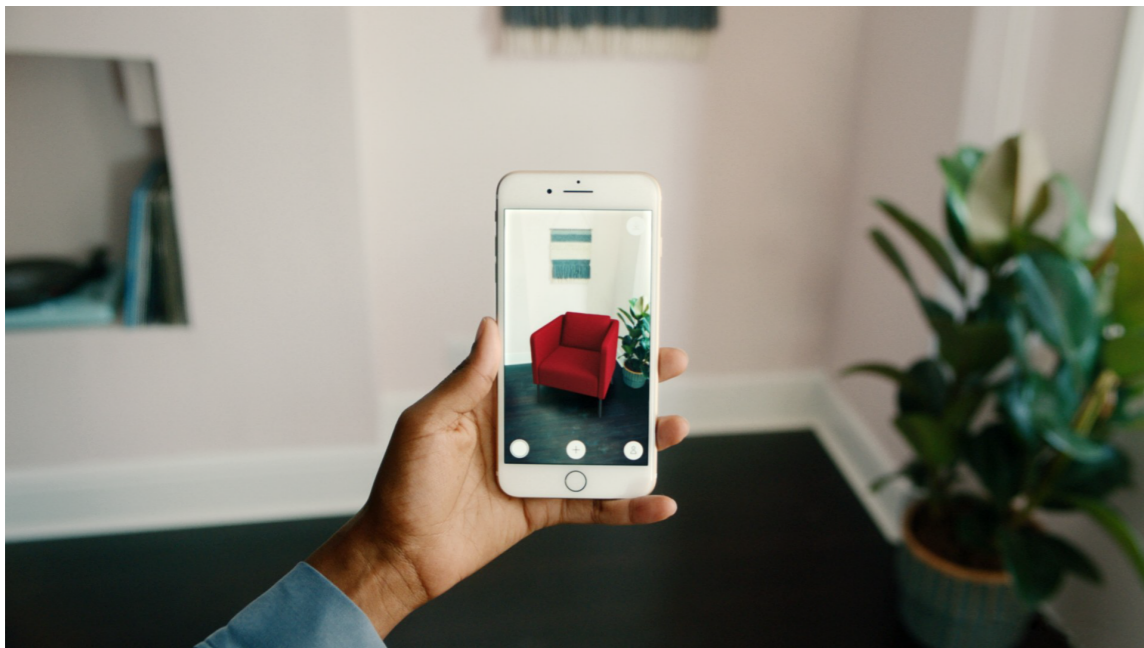


# Virtual Reality experience for home automation system

Máster Universitario en Ingeniería del Diseño

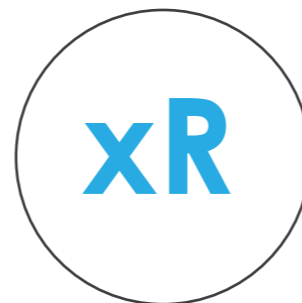
Mariia Mosunova





## Augmented Reality (AR)

AR is a kind of artificial information which is projected on top of the real world.



## Mixed Reality (MR)



## Virtual Reality (VR)

VR means total immersion into a virtual world, without seeing the real one.

MR is virtual information and objects which are placed correctly into 3D space in real time.

# VR HEADSETS

Simple headsets



Google Cardboard

Medium level headsets



Samsung Gear VR

Professional headsets



Oculus Rift



Google Daydream



HTC Vive

# TYPES OF SCENES FOR VR

- Pre-rendered 360° scene or video

There is a restriction of moving inside the scene. The user has only two degrees of freedom like rotating and tilting the head.

- 3D scene in real time

The user has 6 degrees of freedom. This means that it is possible to move inside the virtual world due to positional tracking.

- Hybrid option

This is a combination of renders with more degrees of freedom. The user can move from one part to another of the project but can not walk through the scene. The user does not have as much freedom as in 3D scene in real time.

# EXAMPLES OF APPS FOR GEAR VR

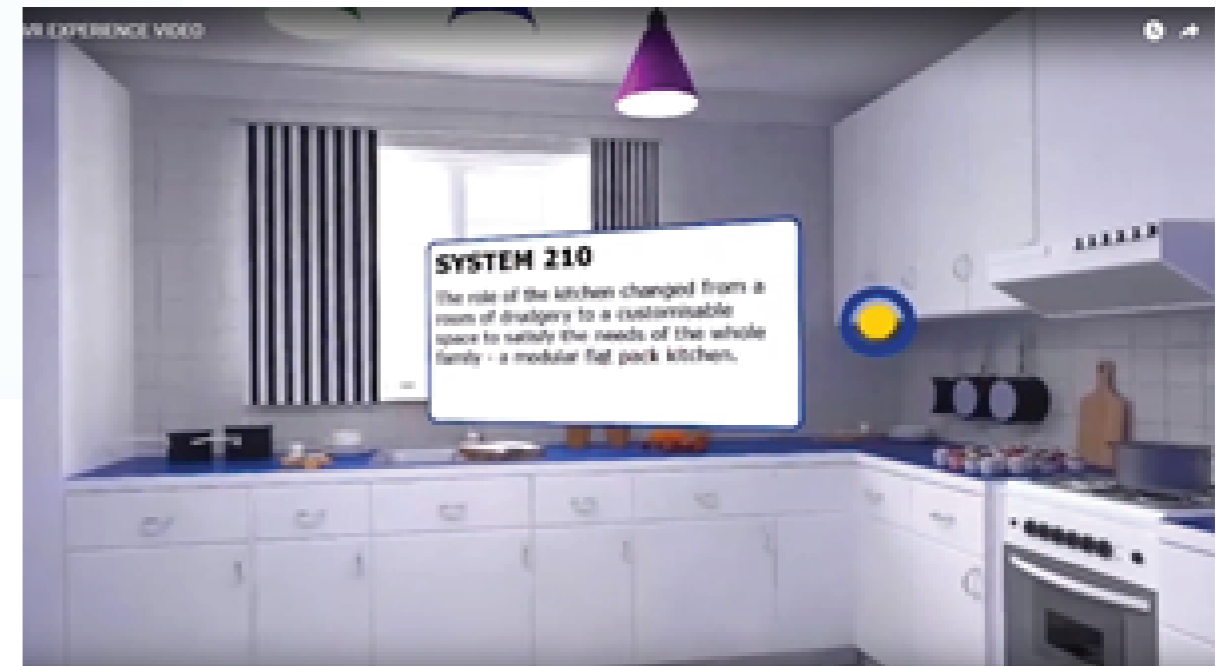


BMW i Samsung Virtual Reality Experience screenshots

The new Jaguar E-pace virtual reality experience



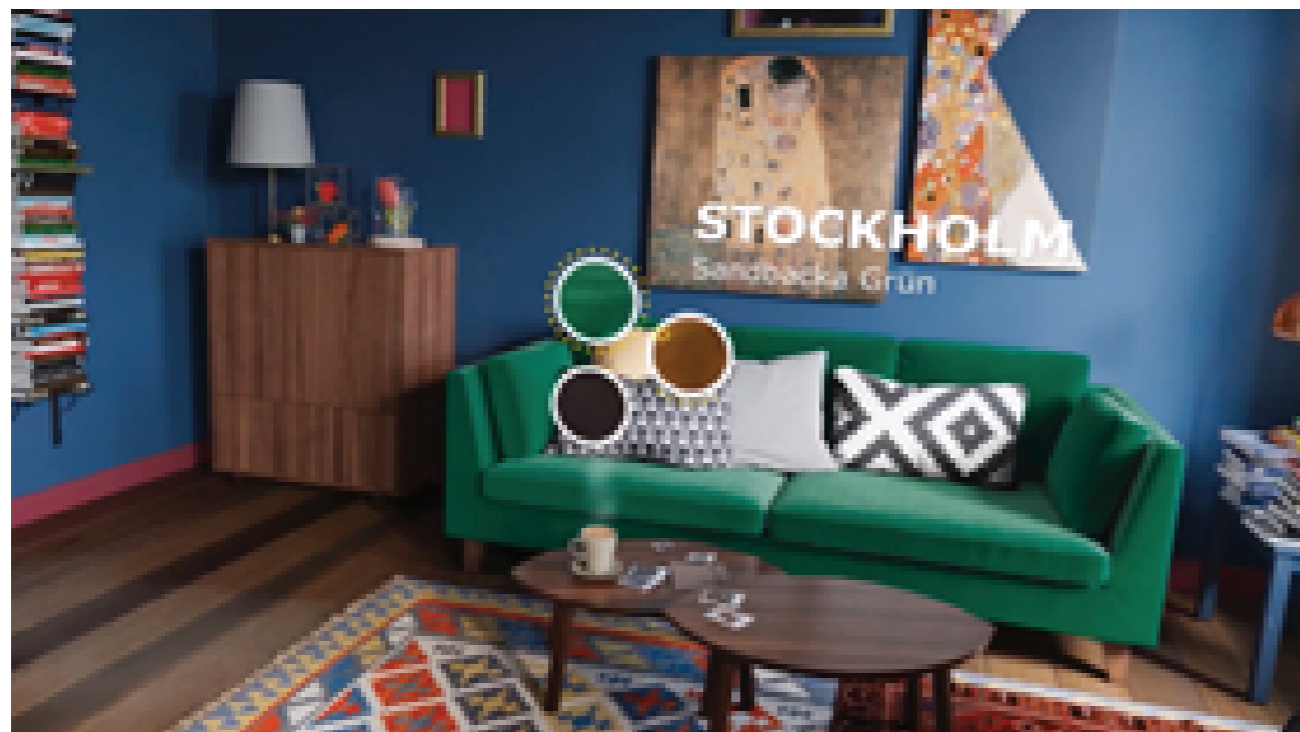
# IKEA EXAMPLES



IKEA VR experience UK. 2017



IKEA VR shopping in Kuwait, Jordan and Morocco



IKEA VR Showroom



IKEA Virtual Reality Kitchen

# PROJECT PROCESS



Gear VR App



First version for Oculus Rift

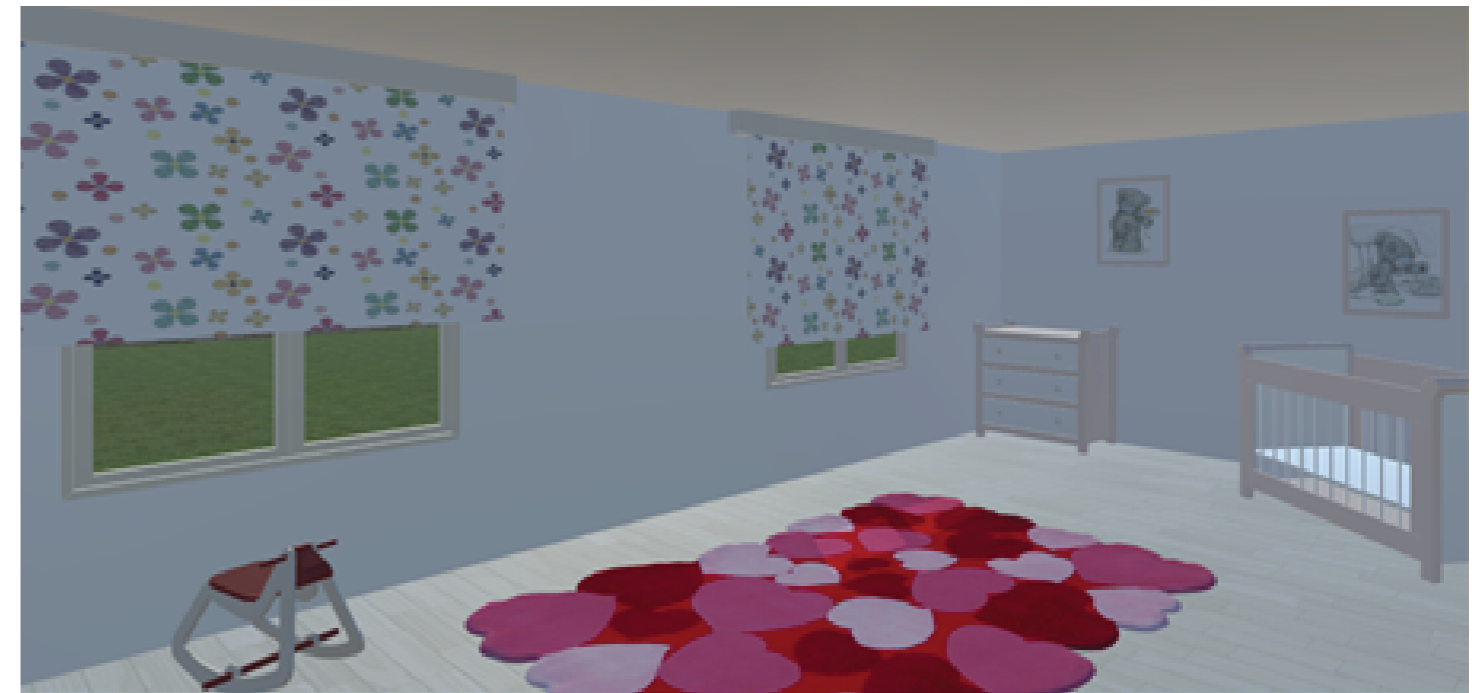
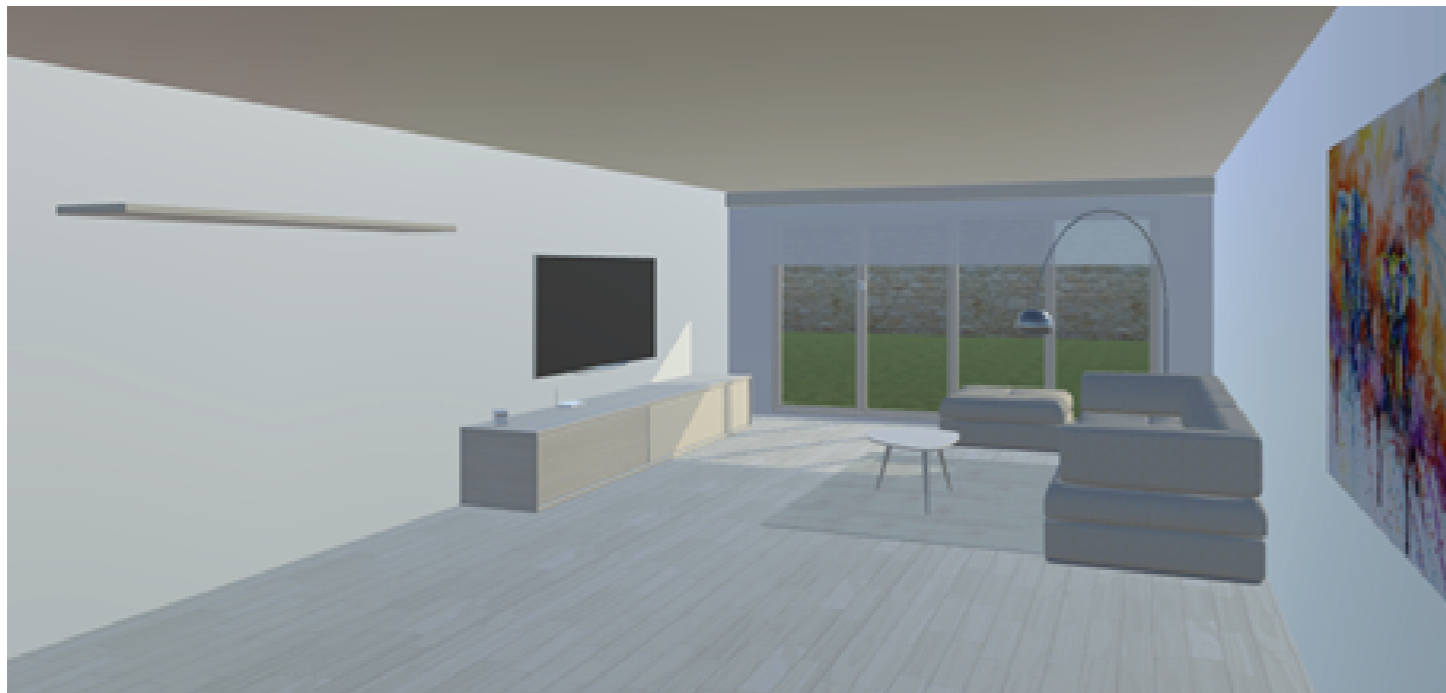


Last render for Oculus Rift





# VR APP FOR MOBILE PLATFORM



# APP FOR COMPUTER PLATFORM

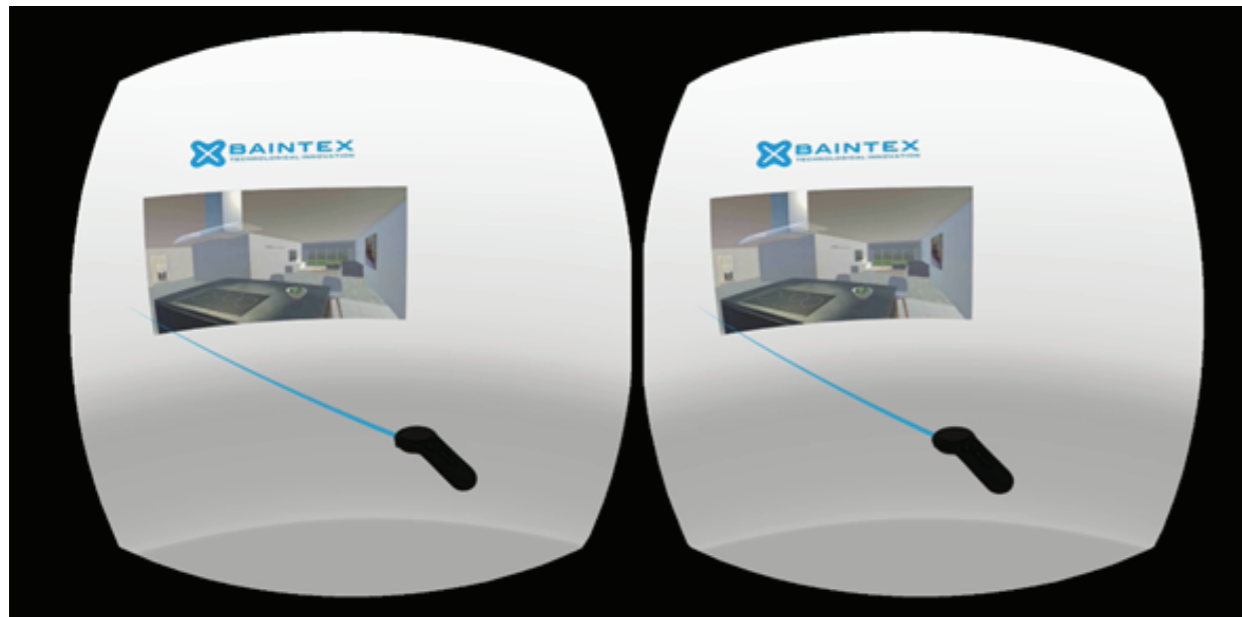
## Unity Built-In Pipeline



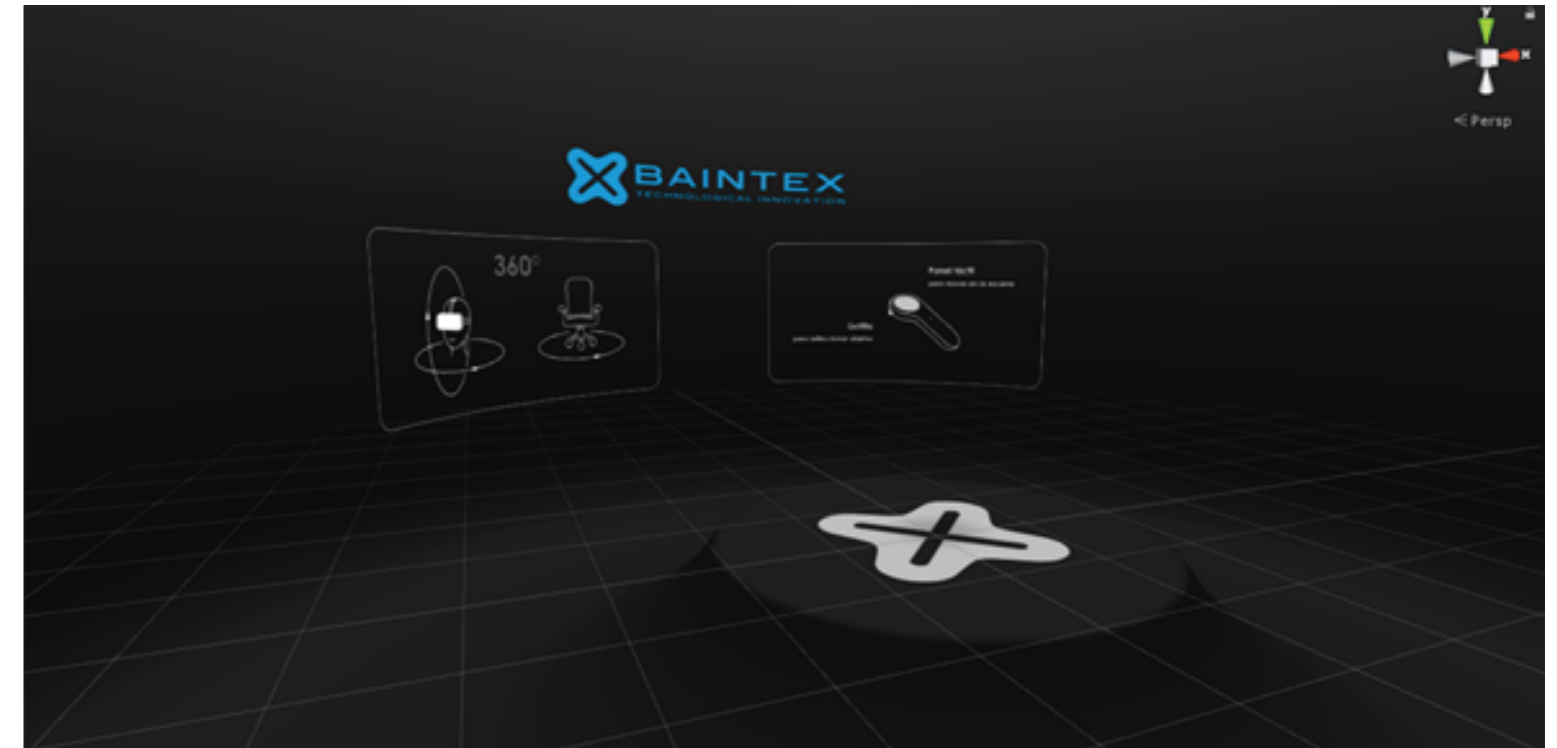
## Lightweight Pipeline



# CHANGES IN MENU



First version



Final menu structure

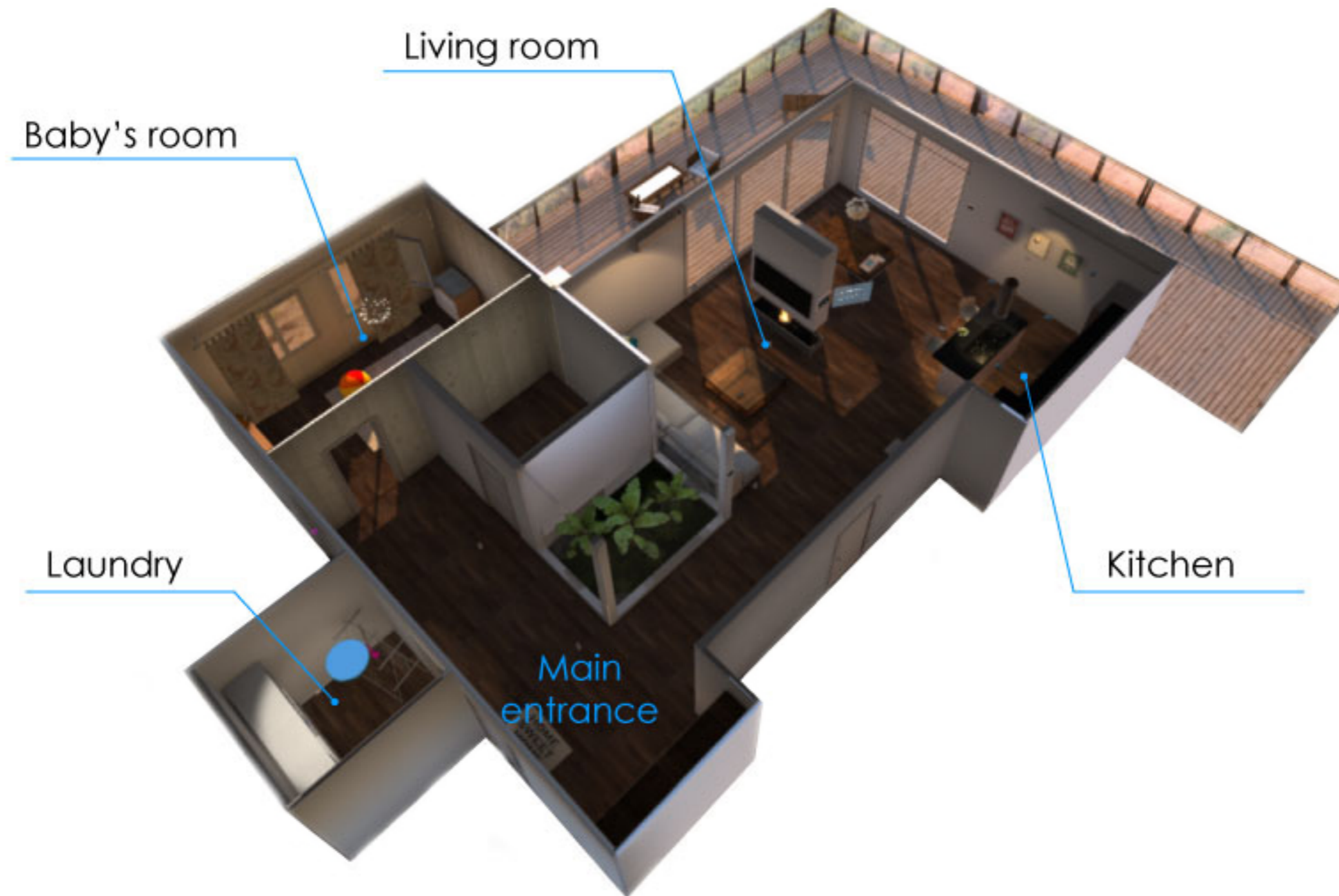


Menu for mobile app



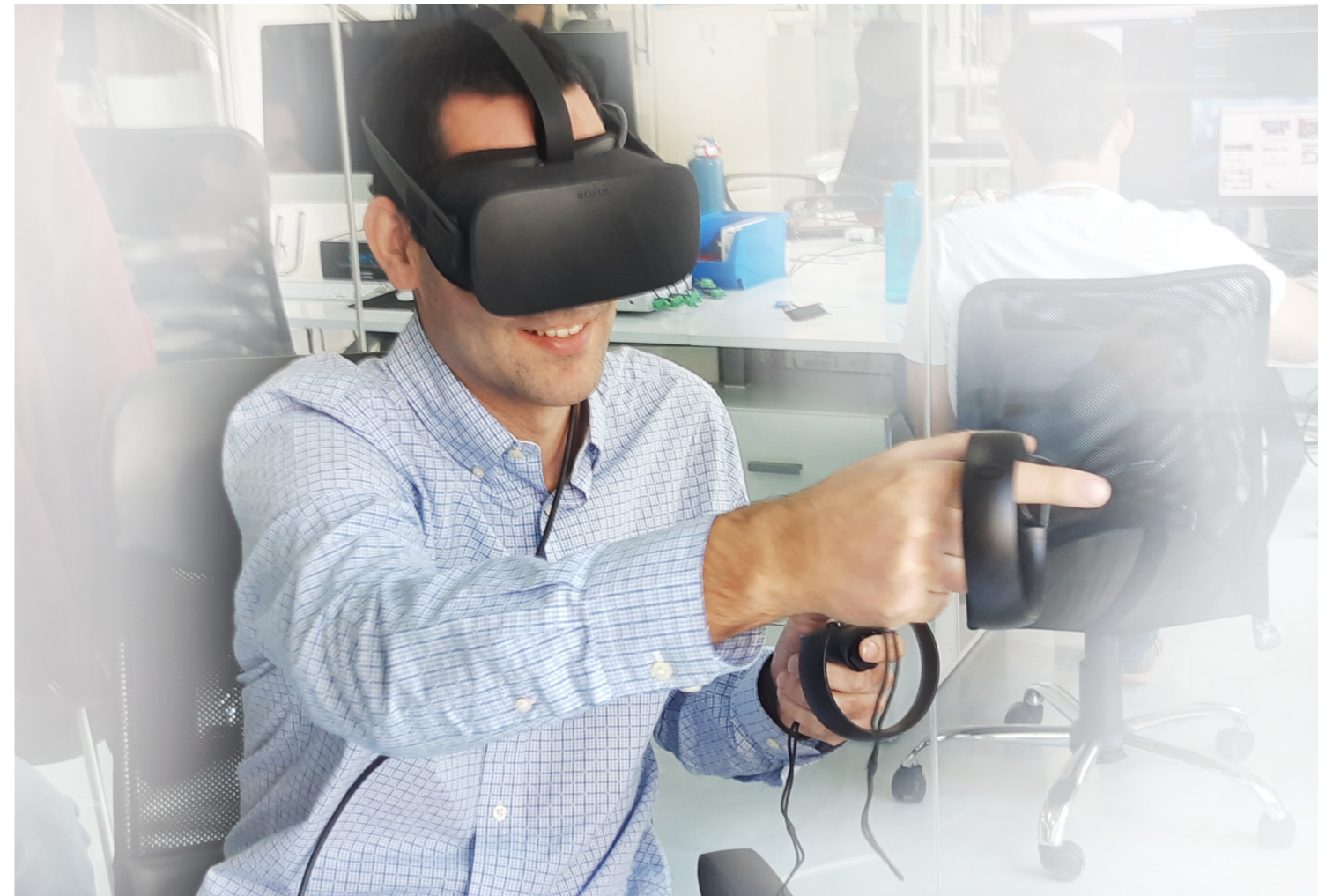
Menu for computer platform

# HOUSE PLAN



There are two options of a tour: half and the whole tour. The most important devices and things to show are located in the zone of living room and kitchen. Thus, if the customer feels motion sickness it is not compulsory to make the whole tour.

# TESTING AND RESULT



# HERE STARTS YOUR VR EXPERIENCE

