

# Futsal Ultimate Training Simulation Associated with Live video

Immersive game using Kinect and 180° screen

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*Key Words: Futsal, Kinect, Immersive view*

## 1. Introduction:

FUTSAL (Futsal Ultimate Training Simulation And Live video) is simulation of a futsal game. Nowadays virtual reality application in sports a very rare, and for futsal it does not exist. The purpose of this project is to make you feel as a real player with an immersive view.

## 2. System Overview:

The project is a QTE game that will make you be a futsal player that will realize some action to make his team win. With the QTE the player will make and see real movements of futsal and so on, be able to learn them. Thanks to an 180° screen with real game projected on, the immersion will be intense, but that's not all because thanks to the kinect, the actions to do to win the game will be futsal movements. This project can be a immersive futsal videogame or a real training simulation for the real players who wants train without finding a ground or teammates.



☒ 1 Goal block included in the game

## 3. Technological aspect

The principal technological aspect is the use of a 180° widescreen to display actual futsal footage for the immersion associated to a Kinect device for the gesture recognition. The picture will be displayed by 3 projectors placed carefully behind the screen in order to provide a good quality picture. The real futsal footage is from an actual game that took place in Tama University with the Futsal university team with cams strapped to the player to get his point of view. The game itself is developed in C++.



☒ 2. Preview of in-game point of view

## 4. User Experience

The graphical aspect of the game is an inside view of the player. The view will be approximately of 110° (the human sight range) and displayed on a widescreen to reproduce the human view. This is the most immersive feature of this game. Seeing the different phases of the match will improve his focus and set him the foreground of the game. To improve this feeling of being a part of the game, the player will have gloves reacting to contacts of the ball on the hand.

## 5. Conclusion

With FUTSAL, we really want to bring something new to sport by the mean of virtual reality. Something that can be seen either as a way to entertain people or a useful tool in hands of professionnals and will bring more technological support to the world of professional sport.