AVR SPOT
AR&VR experts

CASE STUDY

VR Fully Immersive Baseball Game

AVRspot

The Story Behind

At AVRspot we created an Immersive Baseball Game in VR for the HTC Vive and Vive Tracker platforms.

This game recreates the experience of playing baseball in a stadium. Users have full control over many aspects of the game.

Developed for baseball enthusiasts, as well as other sports fans, it enables users to enjoy the sport of baseball from their livingrooms.

VR gaming is a burgeoning industry. Our team developed this application to satisfy the segment of baseball fans in the VR space.
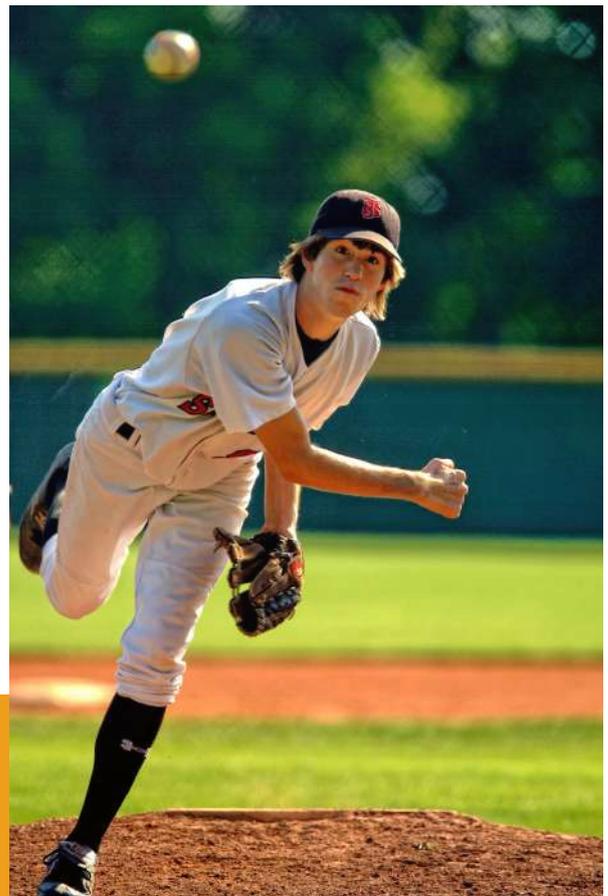
Details

In the VR baseball game experience players are immersed in a full-scale baseball stadium, complete with a cheering crowd and virtual pitcher. If the user hits a home run fireworks go off in the background celebrating their victory.

Players can use a real bat in their homes while wearing an HTC Vive headset. The weight a feel of the physical bat in a virtual environment leads to a deep level of presence and immersion.
However, the game is also fully functional just using the HTC controllers.

The objective of the game is to hit the ball further and further away (all the way to a home run) in a set amount of time. A virtual umpire keeps track of the users score throughout the game.

What was included in this project

- Graphic Design services
- 3D stadium model creation
- Game Logic Development
- UI Design

We used photogrammetry techniques to help our 3D artists generate a realistic, to-scale, model of Target Field.

Additionally, we produced 3D models of the baseball bat, the baseball, spectators, reserved players, a pitcher, catcher, and umpire.

Tools and Technologies:

- Unity;
- Game Sparks;
- Physx 3 SDK;
- 3dx MAX;
- Substance Painter.

Platforms:

- HTC Vive
- HTC Vive Tracker.

Game logic

In the game logic production we:

- Created the game structure
- Bound the bat to the controller
- Developed git simulation and a scoring system development

- Implemented graphics and sound effects Defined the bat's position and physical parameters

- Implemented fireworks using a Particle System

- Animated the reaction for the virtual players and the audience

- Developed an algorithm for the camera to follow the ball and to define hit types. Generated a realistic ball flight trajectory and flight speed

Benefits

✓ Virtual reality baseball game provides users with a way to enjoy a game as if it were happening right where they are.

✓ Immersive videos and sound allow people to actually hit a ball and experience the sounds of a stadium in the middle of a match.

✓ Virtual reality baseball allows trying baseball for those who play it for the first time in interactive, save and low-cost environment.

Results

As a result, our team managed to deliver a full-blown virtual reality baseball game with an exciting gameplay.

The solution we developed can be used by baseball players as well as newcomers to have fun and develop new skills.

Seamless collaboration between developers facilitated the requirements' discussion and clarified product scope.

A market-ready product has been delivered in just two months.

About AVRspot

AVRspot helps clients transform their businesses by providing virtual and augmented technology solutions.

We solve sophisticated issues with creative strategy and large-scale engineering. By applying design-driven prototyping approach in combination with proven project management techniques our highly qualified team delivers outstanding digital solutions and content to our clients.

Our team of experts provide AR/VR Consulting, Product Design & Implementation, and Usability Testing. Moreover, we have experience in cross-border collaboration and virtual teams.