

OPTICAL TRACKING TECHNOLOGY FOR CLAY TARGET SHOOTING LOCATION-BASED ENTERTAINMENT

CLIENT: Clays Bar, Central London

DATE: November 2021

Clays Bar is London's first competitive socialising experience and cocktail bar inspired by the Olympic sport of clay target shooting. Target3D were the technology contractors working with the team to bring the virtual vision to life...

THE ISSUE

The independent start-up team behind Clays Bar were seeking a way to track the movements and angles of guns as accurately as possible to create their new virtual clay target simulator with embedded competitive gamification. Their aim was to retrofit decommissioned guns and they were keen to achieve a sleek look by avoiding fixing markers to them - meaning that the retroflected markers typically used for optical tracking may not be suitable.



THE SOLUTION

The client had initially expected to use magnetic tracking but through consultation - and much experimentation - with the Imagination Factory and Target3D, an optical based tracking system was found to be the most suitable for communicating with the game, which had been created by playerthree in Unity. Involved from the very start of the project, Target3D designed and installed twelve independent tracking systems comprising of installation-grade laser Epson projectors, PCs with RTX graphics cards, OptiTrack Flex 13s cameras and V120:Trios - all controlled by easy-to-use user

interface touch screen kiosks. The potential difficulty of the gun aesthetics led Target3D on a journey of testing and using infrared LEDs, working out how to power them, which constellations would work with the tracking system, and which best echoed the style of the space. Following on from the consultation and install, Clays has successfully launched their first venue and Target3D continues to support through training the Clays team and providing ongoing technical support.



THE RESULT

A playful take on more traditional clay target shooting, the game has been fully brought into the 21st Century with pegs that flow into the bar area, player photo displays and virtual clays launching across the screens with players taking on a range of games including 'to the moon' and 'the peloton' as solo or interactive play. When playing, it's easy to forget you're in the virtual world. Kai Interiors transformed the space with a millennial colour palette and feminine flora reflecting the move away from the older, elitist image of the sport and added inspired touches including bespoke fabric which merges traditional scroll pattern with images of some of the technology used.

THE FEEDBACK

Founder & CEO at Clays, Tom Snellock, stated *"The complexity and scale of what we needed at Clays for our first site demanded a company with real depth and expertise and we couldn't be happier that we met the team at Target3D. From the R&D work we did with the team - including the subsequent IP we've filed on the back of it - through to the install in venue, it has been world class."*

Robert Jeffries, Target3D Technical Director, commented "We've seen a lot of new location-based entertainment venues opening up in London, but Clays has upped the ante by creating a sleek and stylish venue. The experience of the game is fast paced, interactive and super social - a competitive game play that's sure to be really popular. We're already looking forward to location two!"



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