

**TARGET3D SUPPLIES
THE UNIVERSITY OF
KENT WITH MOTION
CAPTURE STAGE IN
MASSIVE £15M
REGENERATION
PROJECT**

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Nestled between centuries-old workhouses and historic shipyards, a motion capture system now lives ready to usher in a new generation of innovators. Part of the University of Kent, The Smitheries Studio is in development, led by the University's Institute of Cultural and Creative Industries (iCCi).

Forging a bridge between tradition and modernity, we witness the same pioneering spirit that powered Britain's naval supremacy enduring at the University of Kent's Chatham Dockyard Medway campus. The university is adopting cutting edge OptiTrack technology to continue their goals of looking outwardly, embracing change and seeing things differently.

The Issue



Target3D was contacted by the Docking Station project team at the University of Kent, seeking information as part of the monumental Docking Station regeneration project. Developed in partnership with Medway Council and the Chatham Historic Dockyard Trust, the £15M project plans to transform existing historic buildings at the Historic Dockyard Chatham site, including the Smitheries buildings.

Target3D had previously acted as Digital Consultants on the Docking Station project prior to the studio fit-out, and therefore had good knowledge of the site and requirements.

The goal of the space is to provide digital production studios for use within the university's games design and screen skills courses, as well as potential commercial use in the future.

University of Kent staff visited Target3D's Central London studio to see the capabilities of the technology in person and to chat to the team, confirming the desired direction of the project.

Caroline Dennis, Project Director for Docking Station notes "Following a recommendation



from Target3D, the motion capture system was included within an open tender process. Alternative solutions were invited, but no other systems were identified that met the required specification”

As well as requirements for the use of the system, the team had to take into consideration the challenge of installation within a Grade II listed building. No.1 Smithery was built in 1806, and was primarily used for iron working. Transforming the space into a place suitable for capturing high quality data whilst working within the historic fabric of the building added a layer of complexity.

The Solution



Target3D proposed an OptiTrack system consisting of 18 PrimeX 13 cameras. The PrimeX 13 series camera is highly versatile and precise, allowing for capture up to 240FPS with positional errors of less than $\pm 0.20\text{mm}$.

These cameras were mounted on a 9M x 9M truss to forego altering the building's interior. Target3D supplied a custom motion capture computer rig, powerful enough to run OptiTrack's Motive software. This was installed on a mobile workstation, to offer flexibility in the studio's configuration. Motive allows users to track multiple performers and props at the same time, providing an adaptable setup for a range of uses.



“The space will be used for a mix of training, creating content, teaching, and community engagement. Really it will be used for a bit of everything!” Caroline notes.

Additional green drapes were installed on the truss to limit the impact of light through the building’s windows and to form a separation between the volume and the control station. There is also an interest in utilising the space for virtual production, making the drapes a convenient green screen solution.

Completing the system, Target3D installed a professional audio system, including Sennheiser standing speakers and microphones.

The Result

Target3D successfully completed the installation process, ensuring that the stage is fully operational and ready for use. Following this, a training session with faculty staff members, was delivered by Producer and Performance Consultant Ryan Mercier.

Caroline commented, “The primary benefits of this space will be through student enrichment and community engagement. The studio will be primarily operated by iCCi but we anticipate use from areas such as Computer Engineering.”

The studio will serve as a hub where students, researchers, the community and industry can collaborate and bridge the skills gap. Staff members mention interest has already generated across different faculties within the university about how the technology can be used for upcoming projects.



The Feedback

“They were the only company that demonstrated sufficient capability to complete the required brief. Furthermore, the fit-out was delivered against a tight deadline, which T3D successfully achieved. Once Docking Station courses in games design and screen skills commence, this studio will give students a fantastic space to learn and create projects.”

Will Draffin, Director of Digital & Future Technology, University of Kent

**Interested in exploring motion capture or performance capture at your organisation?
Let us talk you through the options. Contact sales@target3d.co.uk or visit our website Target3D.co.uk.**