



CASE STUDY

## **Panasonic Transforms Iconic Battersea Power Station into 'Factory of Creativity' with 3D LEGO Projection**

Photography credits: Culture Manual

## Challenge

Transform the iconic Battersea Power Station into an awe-inspiring 'Factory of Creativity' with a spectacular 3D LEGO animated projection.

## Solution

State-of-the-art Panasonic projectors were used to illuminate Battersea Power Station in stunning 4K visuals as part of LEGO Group's 'Play is Your Superpower' campaign.

## Bringing the Factory of Creativity to Life

Battersea Power Station is an iconic central London landmark on the south bank of the River Thames. Repurposed from a decommissioned Victorian power station, the Grade II-listed building and surrounding area has since been developed into a modern mixed-use neighbourhood featuring luxury shops, dining and entertainment venues, attractive parks and residential spaces.

The project was a significant creative, technical and logistical undertaking. LEGO Group, with a flagship store inside Battersea Power Station, worked in tandem with media agency IMPACT/Rapport WW, creative agency Hello Charlie, production director Daniel Postlethwaite, Creative Technologist and Workflow Specialist, Jackson Tayler, and 3D projection mapping and technical implementation experts Graymatter Video (GMV) to conceive, develop and deliver the immersive spectacle.



*"For as long as I've been in the projection mapping game, Panasonic has always been the market leader and the one projector you want to use. They are the smallest, lightest and brightest in their class and deliver every time"*

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**Dan Postlethwaite**

Freelance Production Manager

Having relied on Panasonic camera and projector technology to achieve stellar results for over 10 years, the team utilised 12 Panasonic [PT-RQ35 3-Chip DLP 4K Projectors](#), 10 Panasonic [PT-RQ25 3-Chip DLP 4K Projectors](#), and two Panasonic [AW-UE100 4K PTZ cameras](#) to bring the LEGO illumination to life.

The result was a visually stunning 3D LEGO 'Factory of Creativity' animation projected onto the entirety of the power station. Designed to engage the public to illustrate the power of play, the colourful scene revealed the inner workings of an assembly line with a set of robotic arms putting together the Minifigures, which were then catapulted up the power station's 50-meter-high chimneys in an awesome display of imagination and creativity.



## Using advanced 3D projection mapping to make the magic happen

Led by Jackson Tayler, The process began by digitising a 3D model of Battersea Power Station. The 3D model and UV template was then produced using Cinema4D turning the laser scan data into a 3D template that provided the animators with an accurate reference to build the content of the animation.

The team tasked with projecting the animation onto Battersea Power Station then used Mapping Matter and the Disguise toolkit to visualise and simulate where the projectors should be positioned so the animation matched up correctly and all surfaces of the power station were covered and optimally illuminated.

This was a massive technical undertaking. The building itself was made of dark red brick, so projection brightness was important. The team also had to consider the amount of ambient light in the area generally and the visual perspective had to be optimised to ensure the best display whether it was viewed from the ground in front of the building, further away from across the river, or even from an aerial perspective.

*"The Panasonic RQ35 and RQ25 projectors provided the superior firepower that delivered one of the most successful projects to date. The feedback has been fantastic. Panasonic projectors are just phenomenal. Easy to use and mix and match, the RQ25 and RQ35s are among the smallest and lightest projectors in their class. And as for projection mapping, the RQ35 is one of the best, if not the best projector currently on the market. It's robust, it's reliable, it's bright. It consistently delivers 30,000 lumens, and the colour depth is second to none. We also love the geo management tools. "Our passion is to produce the best visual projection display possible and Panasonic delivers on all counts. We couldn't be happier with the result." "*

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**Dan Gray**

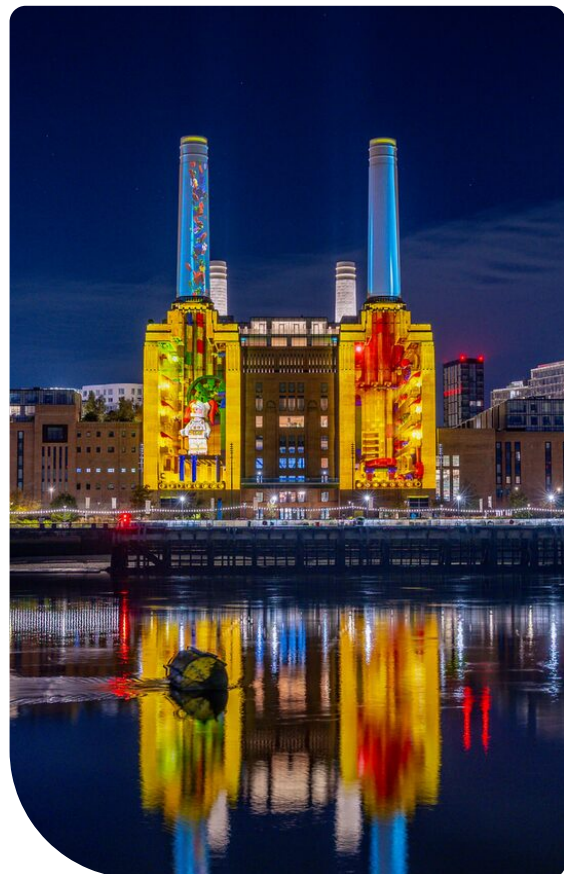
Director

Graymatter Video

## Optimising the projection powered by Panasonic

To ensure an accurate projection onto Battersea Power Station, optimising the projector array was key. GMV produced a 4:1 array which comprised three in landscape for the washtowers, and a pair of projectors in portrait to hit the chimneys. Each of the outputs were tripled-up, with the top two projectors on the chimneys doubled up.

With the amount of footfall in and around Battersea Power Station, the team had to ensure that the projection towers were discrete. Due to the amount of development in the area they devised a tighter angle for projection which was approximately 30 meters closer than normal.



All these considerations involved extensive planning in the pre-production phase. With only two build days to ensure that the projection equipment was optimised and positioned correctly prior to the live event on the third day, doing this in advance ensured there were no surprises when they arrived on location.

In total, eight outputs were used, with each tripled-up using Panasonic geometry technology. The team used a matrix to distribute these feeds effectively to each projection stack. They also used a complete failover system with a backup server to ensure continuity should a server fail.

To ensure the projection on Battersea Power Station was aligned properly, the team used Panasonic [AW-UE100](#) 4K PTZ cameras to zoom in on the edges of the projection from a distance, especially where projection images were stacked. This ensured a nice crisp image with minimum effort; in the past, this would have required binoculars.



