

# Project Case Study

## GLOBAL VILLAGE – CENTRAL PLAZA LIGHTING SHOW INSTALLATION

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# The Project

Global Village in Dubai is a large-scale, seasonal, multi-use entertainment destination operating annually over a six-month period (October–April). The site accommodates millions of visitors per season and incorporates over 30 international pavilions, retail outlets, performance stages, and amusement attractions distributed across a significant open-air footprint.

The project objective was to design and implement a permanent, centrally controlled, and visually prominent lighting installation capable of delivering synchronized, repeatable show sequences throughout operational hours. The installation was required to:

- Operate as a recurring 3–5 minute show with high visual impact
- Integrate seamlessly into the existing architectural and entertainment environment
- Function reliably in an outdoor, high-footfall public environment
- Require minimal operational staff
- Contribute to the site's nighttime identity and long-range visual recognition



# Scope of Work

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## 1. Lighting System Design and Engineering

Our project began with the development of a lighting installation, created in Depence using a 3D model generated from the park's floor plan or CAD file. This approach enabled us to efficiently simulate multiple design options and visualize their real-life impact. Through this process, we finalized a lighting design that encompassed the entire plaza, integrating it into a synchronized show set to music.

- High-output beam fixtures (sky trackers) for long-throw aerial effects
- Feature lighting integrated around the central flagpole as a focal element

Fixture selection was based on photometric analysis, beam angle optimization, lumen output requirements, and environmental protection (minimum IP65 rating for outdoor deployment).

## 2. Control and Show Automation System

A centralized lighting control system comprising:

- Single-point trigger operation via the sound operator interface
- Pre-programmed show sequences with consistent repeatability
- Integration with the park's existing Public Address (PA) system for audio-triggered synchronization

# Scope of Work

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## 3. Content Development and Programming

The scope included full creative and technical programming of the show content:

- Development of synchronized lighting sequences using previsualization software (Depence)
- Integration of custom-composed audio tracks aligned with show narrative

Previsualization workflows enabled validation of:

- Beam coverage and sightline analysis
- Audience perspective across multiple viewing zones

## 4. Infrastructure and Installation

The installation scope encompassed:

- Custom rigging design in coordination with structural and civil teams
- Installation of fixture mounting systems
- Installation of data cable
- Routing of underground and overhead cable pathways with protection against environmental exposure

All installation activities adhered to relevant standards, including:

- IEC standards for electrical systems
- Local UAE municipality and civil defense requirements
- Manufacturer guidelines for fixture mounting and operation

## 5. Testing, Commissioning, and Handover

A structured commissioning process was executed, including:

- Point-to-point verification of all control channels
- Load testing under full operational conditions
- Safety system testing (including emergency shutdown scenarios)

Operational training was provided to on-site personnel, with documentation covering system operation, maintenance procedures, and troubleshooting protocols.

# Client Requirements



## Client Requirements

3–5 minute repeatable show

Visually striking centerpiece

Minimal operational complexity

Permanent installation

Integration with existing park systems

Safety and reliability

Enhanced visibility across site

## Technical Interpretation / Deliverable

Pre-programmed lighting sequences with timecode synchronization

Dynamic lighting system integrated around central flagpole

No extra staff requirements and easy to use system.

Outdoor-rated fixtures with long lifecycle and robust mounting systems

Audio synchronization via the parks PA system

Emergency shutdown systems, redundancy in control network, IP-rated equipment

Aerial Beam effect, sky trackers.

# Project Challenges

## 1. Environmental and Operational Constraints

The installation was required to operate in a demanding outdoor environment characterized by:

- High ambient temperatures and humidity
- Dust exposure and seasonal weather variations
- Continuous daily operation over extended periods

Mitigation measures included the use of IP-rated fixtures, thermal management considerations, and protective cable routing.

## 2. Spatial and Crowd Dynamics

The central plaza experiences high-density pedestrian traffic, introducing constraints related to:

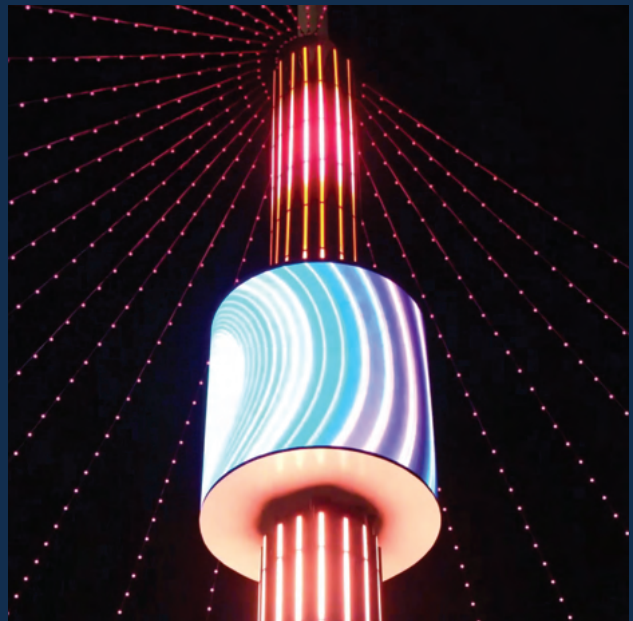
- Equipment placement without obstructing circulation
- Glare control to avoid discomfort to visitors
- Structural safety for overhead installations

Detailed site coordination and lighting simulations were conducted to ensure compliance with safety and usability requirements.

## 3. Safety and Fail-Safe Mechanisms

The inclusion of high-intensity sky beams introduced aviation and safety considerations. Measures implemented:

- Emergency shutdown controls for beam fixtures
- Zoning logic to isolate specific elements without affecting the entire show
- Compliance with local aviation and civil defense regulations (coordination with authorities)





# Project Outcomes

The installation successfully transformed the central plaza into a dynamic environment, reinforcing its role as the experiential core of Global Village while maintaining operational simplicity, safety, and long-term reliability.

The completed installation delivered a fully integrated, high-performance lighting system with the following measurable outcomes:

- **Operational Efficiency:**

Fully automated system requiring no dedicated operator beyond initial trigger, reducing operational overhead

- **Reliability:**

Stable daily operation across the full season with built-in redundancy and fail-safe mechanisms

- **Visual Impact:**

High-intensity beam effects visible across long distances, enhancing site visibility and acting as a navigational landmark

- **System Integration:**

Seamless synchronization between audio and lighting systems.

# Installed Items/BOQ

## Control System

1 x MA Lighting grandMA3 light lighting console

3 X MA Lighting grandMA3 processing unit L

1 x LUMEN RADIO Stardust

7 X LUMEN RADIO Galileo RX

2 X LUMINEX GigaCore 30i -24x1G -6x10G(SFP+) – PoE+

15 X Response Mk2 Four-port DMX Gateway

1 x Rack PC

1 X CANFORD MDU1 AC MDU 15x IEC out

1 X APC Smart-UPS 1500VA LCD RM 2U 230V with SmartConnect

## Fixtures

300 X Cameo PIXBAR® SMD IP G2

130 X Cameo ORON® H2 - IP65



## Client Testimonial

"Collaborating with Oasis Enterprises on this project has been a positive experience from design through to installation. Throughout our partnership, Richard Burton and the team at Oasis Enterprises demonstrated flexibility, creativity, and a pragmatic approach to delivering the central plaza lighting for Global Village's 30th season. They approached onsite challenges with technical expertise and attention to detail, ensuring the show was ready for opening night. Their knowledge of lighting systems and lighting design allowed them to create an engaging light show. Their support throughout the season has been great and I look forward to working with them in the future."

-Shaun Cornell  
Entertainment Director - Global Village

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