

## Terra Lumen Tower

Pershing Square, Los Angeles, California

Concept Proposal by

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Terra Lumen Tower (TLT) is a dynamically controlled, LED public lighting display interfaced with the changing states of seismic activity and weather conditions proposed for installation on the tower of Pershing Square, Los Angeles.

Operating from dusk until midnight, Terra Lumen Tower incorporates the installation of 2100 LED light cluster balls to the exterior of the existing Pershing Square Tower. This LED light grid is set at one foot spacings apart, containing six LED lights in each cluster ball, producing full-spectrum illuminated color sequences, which are governed by geologic and atmospheric conditions.

Independently controlled, each light cluster ball is attached to power and data strings requiring minimal interference of installation to the aesthetic integrity of the current tower design; architecturally enhancing the existing tower. The lighting design is based around the idea of an illuminated environmental clock. When it rains, the tower rains down with light, and when the earth shakes, the tower oscillates and refracts with illumination are two key design features.

Pulsing with illuminated light the tower represents the idea of 'Ostes', or Latin for breath. Terra Lumen Tower is a visually interpretive lighting display representing the geologic and changing weather conditions of California. This architectural lighting installation is driven by computer algorithms, which determine the output sequence of collected earth science and weather data.

Terra Lumen Tower introduces Pershing Square to the 21st century as an example of contemporary urban illumination, creating social awareness of the dynamic planet in which Californian's inhabit.

## Technical Specifications

Internet ISP Connection.

2100 LED Cluster Light Balls containing total of 12,600 LEDs.

10ft x 10ft Carbon Offset Solar Array (Not on Location).

## Software/Hardware Development Team:

### **Mark Lottor** - *Hardware Direction, Design and Interface Direction*

Founder of 3waylabs based in Menlo Park, California. Mark specializes in products and services including wireless electronic mail systems, computer control of cellular telephones, electronic jewelry, satellite delivered usenet news receivers and protocols, computerized temperature sensors, computer console management systems, Internet domain system surveys, and Internet web hosting services. Today Mark's time is concentrated on computer controlled RGB LED lighting displays and is known for his 'Cubatron' lighting installations.

<http://3waylabs.com>

### **Dr Geo Homsy** (USA) - *Computational Algorithm and Power Engineering Direction*

Geo Homsy has a PhD in Electrical Engineering and Computer Science from MIT. He is a computer scientist and software architect with deep understanding of physics, biology, and robotics. He has made original contributions in theoretical chemistry, biological computation, secure networks, spread-spectrum data storage, physiological modeling and simulation. An artist - scientist, Geo has collaborated with Survival Research laboratories and Amorphic Robot Works for the last two decades amongst others.

### **Mister Stock** (NL) - *Seismic and Weather Data Feed Software*

Stock collaborated with the V2\_Lab team, Rotterdam between 2000-2008 as a Systems designer and Hardware-engineer. Today Stock operates as "Mister Stock Interfaces" specializing in Interface Design, Sensor Systems, Embedded Systems, Machine-control, Audio-processing and programming, Max/MSP/Jitter, Python, C and low-level programming.

<http://www.v2.nl/archive/people/stock/view>

### **Mr. Snow** (NZ) - *Visualization Design and Data Collection Direction*

Mr.Snow is an artist and a multi-skilled artists technician specializing in concept drafting, system design, programming and visual design. His areas of expertise currently include design and construction of custom web applications, open source mash-ups, database programming, video streaming and hardware input/output. <http://is.gd/4R2rs>

### **D.V. Rogers** (NZ) - *Conceptual Design and Producer*

An early 21st century installation, performance artist engineer working between the fields of geophysiology, conceptual cultural theory, activism, performance, systems engineering and social commentary. His 2008 seismic machine earthwork, the Parkfield Interventional EQ Fieldwork (PIEQF) was a telematic performance installation action, mapping the terrain of spatio temporality of shifting tectonics and information networks in this NoW digital age.

<http://pieqf.net>

## Budget:

### *Hardware*

\$15k Solar Array (Max)

\$21K Light Strings

\$10K Installation Rigging

\$ 5K De-Installation

+ Design and Engineering Commission Fee.

+ After first year a \$10-15k p/year service fee up-to five year contract.