

CROSSROADS LED ANNOUNCES RELEASE OF ITS HIGHLY ANTICIPATED DMX FREE™ LED CONTROL SYSTEM

An 18-month intensive research and development program by Crossroads LED unveils its new DMX FREE™ system developed to control thousands of high output, multi-watt LEDs without the need for cumbersome DMX-style addresses or controls

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Collinsville, Oklahoma – An intensive, 18-month research and development program by Crossroads LED, LLC has led to a revolutionary new LED control system called **DMX FREE™** (*patent pending*). This system will have its official debut at the International Association of Amusement Parks and Attractions (IAAPA) trade show in Orlando, Florida in November 2011.

This system, which is one of the most versatile and innovative amusement and entertainment LED system on the market today, includes the **Light Storm DMX FREE™ Controller** paired with either the Crossroads LED **INFINITY** or the **PROFESSIONAL** series LED tubes. The controller utilizes state-of-the-art, microprocessor-based technology that, when connected with the Crossroads LED arrays, generates advanced lighting effects that are **five to ten times brighter** than the competition.

What makes the new **DMX FREE™** controller so revolutionary is its superiority over conventional technology. Currently, amusement parks and entertainment venues have had to use the DMX system originally created in 1986 and designed to control stage lighting. This control protocol is complicated and requires the cumbersome assignment of physical addresses for each LED segment. This adds a level of complexity that has proven troublesome in the amusement industry. In addition, the use of DMX and PWM technology for LED intensity control is encumbered by the numerous patents held by several corporations.

After observing that several lighting companies within the amusement industry were just duplicating the DMX control and were not solving the limitations associated with its use on rides and structures, Crossroads LED chose to take a completely different approach and develop a new system that would eliminate the frustrations found in current DMX applications. This new “plug-and-play” system provides high-speed advanced lighting effects and features **without the need for physical addressing**. The **DMX FREE™** controller utilizes a full authority, computer control interface – a first of its kind in the industry. This system was designed to drive high-output, multi-watt RGB LEDs at efficiencies approaching 96%. Additionally, the **DMX FREE™** technology was not designed to simply “get around” any current patent, but was developed as an entirely new approach at intelligent LED control.

“The technical and administrative challenges during the development of the **DMX FREE™** system were, at times, extreme,” said Crossroads LED president, Dana D. Stefanoff. “However, early on, as we finalized the development and began demonstrating the technology to our customers, we immediately knew that we had a winner. This system is a ‘game changer’ and will transform the way LED lighting is controlled.” Stefanoff added, “With today’s technology, intelligent LED control need not rely on outdated standards and protocols.”

Crossroads LED's premier system utilizing the **Light Storm DMX FREE™ Controller** is the **INFINITY** series. This system employs high-output, tri-color LEDs mounted to standard fiberglass circuit boards and interconnected into customer selected linear arrays. "Managing the heat generated by the tricolor, 3-watt LEDs was especially challenging," said Buddy Stefanoff, Vice President and Senior Design Engineer for Crossroads LED, "and using traditional FR4 circuit boards just added another level of complexity. However, designing ultra-efficient, high-output drivers and utilizing novel circuit board designs allowed us to drive the LEDs at full output while maintaining LED die temperatures at less than a quarter of the specified rated operating temperature. The entire system runs at just a few degrees above ambient and is barely warm to the touch."

The **DMX FREE™** technology has broad reaching applications far beyond the amusement and entertainment industries. In addition to multicolor amusement lighting, Crossroads LED is also applying this technology to its line of both multicolor and white interior and exterior commercial and architectural lighting products. The ability to control hundreds or even thousands of individual LED fixtures within a building with a simple and easy-to-use control interface has been long sought after. The Crossroads LED **DMX FREE™** system offers a complete solution to this challenging problem.

CROSSROADS LED, LLC, located in Owasso, Oklahoma, is an electronic engineering and manufacturing company that specializes in the solid-state lighting (LED) industry. The company provides innovative LED lighting solutions to the amusement, entertainment, commercial and architectural lighting industries.

For more information on Crossroads LED and its variety of LED lighting products, visit www.crossroadsled.com or contact:

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