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Diode Laser Concepts

recognized by **EMBEDDED** ADVISOR magazine as

TOP 10
MEDICAL DEVICES DESIGN
& SOLUTION PROVIDERS - 2019

*The annual listing of 10 companies that are at the forefront of
providing Medical Devices Design solutions
and transforming businesses*

COMPANY:

Diode Laser Concepts

KEY PERSON:

Mike Robinson
President & CEO
Drew Runberg
Customer Relations Manager

WEBSITE:

diodelaserconcepts.com

DESCRIPTION:

The firm mitigates manufacturing challenges by offering turnkey, advanced optoelectronic and mechanical design and manufacturing solutions

TOP 10 MEDICAL DEVICES DESIGN AND SOLUTION PROVIDERS - 2019

The medical device industry has reached an inflection point with the advent of digital technologies. More medical device companies today are experiencing a bevy of demands from various quarters. While patients expect enhanced care delivery, physicians need access to patient data from diverse sources for better decision-making. Health systems, on the other hand, seek rich data for improved business outcomes. At the core of the transformation of the industry, however, lies the demand for enhanced and consistent quality and reliability of the medical devices for improved clinical efficiency and patient satisfaction.

With plenty at stake, the design teams working on the medical devices are striving to meet the evolving market needs while keeping the device complexity in check. The devices are being built from the ground up to support integration with disparate technology systems and tools, including IoT, for maximum data sharing and processing.

The idea is to build devices and platform that are not tech-centric but user-centric. One major responsibility of medical device manufacturing companies is aligning with the stringent regulatory requirements.

We are pleased to introduce to you Diode Laser Concepts, Inc. (DLC). Founded in 1991, DLC is a specialist in custom-designed laser solutions. The company takes a service-based approach, ensuring a higher-level of performance with an individualized design. Another company featured in this edition is Velentium. The professional engineering firm Velentium specializes in the secure design and development of therapeutic and diagnostic active medical devices.

With numerous success stories up their sleeves, these companies are helping manufacturers to stay one step ahead of the challenges and remain competitive.

We bring to you Embedded Advisor's "Top 10 Medical Devices Design and Solution Providers-2019."

Diode Laser Concepts

Customized Laser Solutions—from R&D to Production

Founded in 1991, Diode Laser Concepts, Inc. (DLC)—a specialist in custom-designed laser solutions—mitigates manufacturing challenges with a value adding approach. Unlike most of its competitors who sell off-the-shelf products that OEM customers buy and integrate into their systems, DLC undertakes a service-based approach, ensuring a higher level of performance with an individualized design. This service-based approach saves clients both cost and time. “We focus on custom design work and maximize value by optimizing the laser performance against customers’ stated price point,” says Drew Runberg, Customer Relations Manager at Diode Laser Concepts.

Demand laser technology in itself is undoubtedly proliferating. The medical market, for instance, is witnessing off-center products almost every day. DLC is versed with this simple fact. They work in collaboration with their clients’ teams to first understand the product specifications and end-use application, helping them optimize performance for the customers’ specific needs. “First, our team understands the clients’ application well. Then, we go through a systems analysis phase, where we examine every factor, such as their environmental constraints, price points, and performance objectives. Taking this knowledge gained to the design stage, we leverage our ability to do custom electronics, optics and form factors to yield a high-performing part to ensure a plug and play installation. It reduces time and improves performance,” states Runberg. Throughout the development cycle, DLC’s collaboration with clients plays a critical role. This continues into the production phase where the Advanced Manufacturing Team delivers products on time, and under customer-controlled revisions.

Besides this collaborative approach, what keeps DLC ahead of the pack is its nimble team of seasoned Engineers. This team, with years of experience and cross-industry knowledge, serves clients in the best possible way, allowing them to deliver these products to market in an efficient timeframe.

With a client base spread across 20 countries and footprint into different industry verticals, such as biomedical, medical imaging, healthcare, machine vision, factory automation, and 3D-scanning, DLC has witnessed that the needs and approach of each of these industries differ from each other. Also, it has gathered knowledge about every commercially available laser product and diode, which helps the company to stay up-to-date and serve its clients better—beyond the limitations of the one-size-fits-all model. Apart from this, DLC also has capabilities to do higher-level assemblies, further reducing the manufacturing burden on their clients.

Honing such capabilities, DLC has built a long-standing relationship with many clients. In one instance, a flow cytometry equipment manufacturer faced problems with its device having



different adjustments, such as folding the mirror and turning the mirror. This increased the cost of getting the beam on their working area from the laser device. Engaging with the client, DLC removed all of the adjustments and built a single, robust laser system. In the end, the client was able to adjust and mount it repeatedly on the exact location, leveraging specific mechanical features. This reduced assembly time, material cost, and calibration cycles due to increased stability.

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We focus on custom design work and maximize value by optimizing the laser performance against customers’ stated price point target

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With a keen eye on sharpening its offering, the company is focused on making the internal team stronger and capable of handling diverse projects. “Performance requirements always change. So, we keep the customers satisfied in a variety of ways. But, from a technical standpoint, we always concentrate on constant modification and improvement on of our services. One of our credos — ‘We do not settle’—always drives us to emerge as a better version of ourselves every day and every moment,” concludes Mike Robinson, President, and CEO of DLC. 