

Optel

Product Capabilities Portfolio

January 2017

This presentation may contain Optel Confidential Information

© Copyright 2017, Optel

Optel's Capabilities & Experience

This presentation provides a historical overview of the design and manufacturing and regulatory compliance experience of Optel's team.

Our engineering disciplines include:

- Optical engineering and lens design;
- Electronic and FPGA design and related firmware;
- Precision mechanical design and Design for Manufacture;
- Software development for mobile devices, Macs and PCs;
- Regulatory compliance for FDA, Europe and other countries; and
- Intellectual property protection and expert witness services.

The Optel team has experience spans the range from miniaturized high volume products to large one of a kind systems. In addition, we are experts in the design, manufacture and regulatory compliance for medical devices.

Facilities and Equipment

Optel and its team maintain substantial equipment and facilities. These include:

- [Optics lab](#): Fully equipped with wide selection of optics, sources & sensors
- [Clean room area](#): HEPA filtered clean room area
- [Electronics labs \(2\)](#): Equipment - power supplies, meters, oscilloscopes, etc.
- [Software](#): Solidworks; ProTel (PCB software); Zeemax; Numerous PC and Mac applications, etc.
- [Rapid prototyping capability](#): Bridgeport numerically controlled mill; 2 lathes (one is CNC controlled); CNC glass saw and edger, drill presses, etc.
 - Pending: Hass CNC machining center
- [Product testing capability](#): Temp/humidity chamber, drop tower & shake table
- [Regulatory compliance software](#): ISOXpress 13485 & 21 CFR 820;
ISO 14971
- [FDA facility registration](#): Planned for 1st half of 2017 - FDA/ISO 13485 quality manual is in final review.

Medical Device Experience

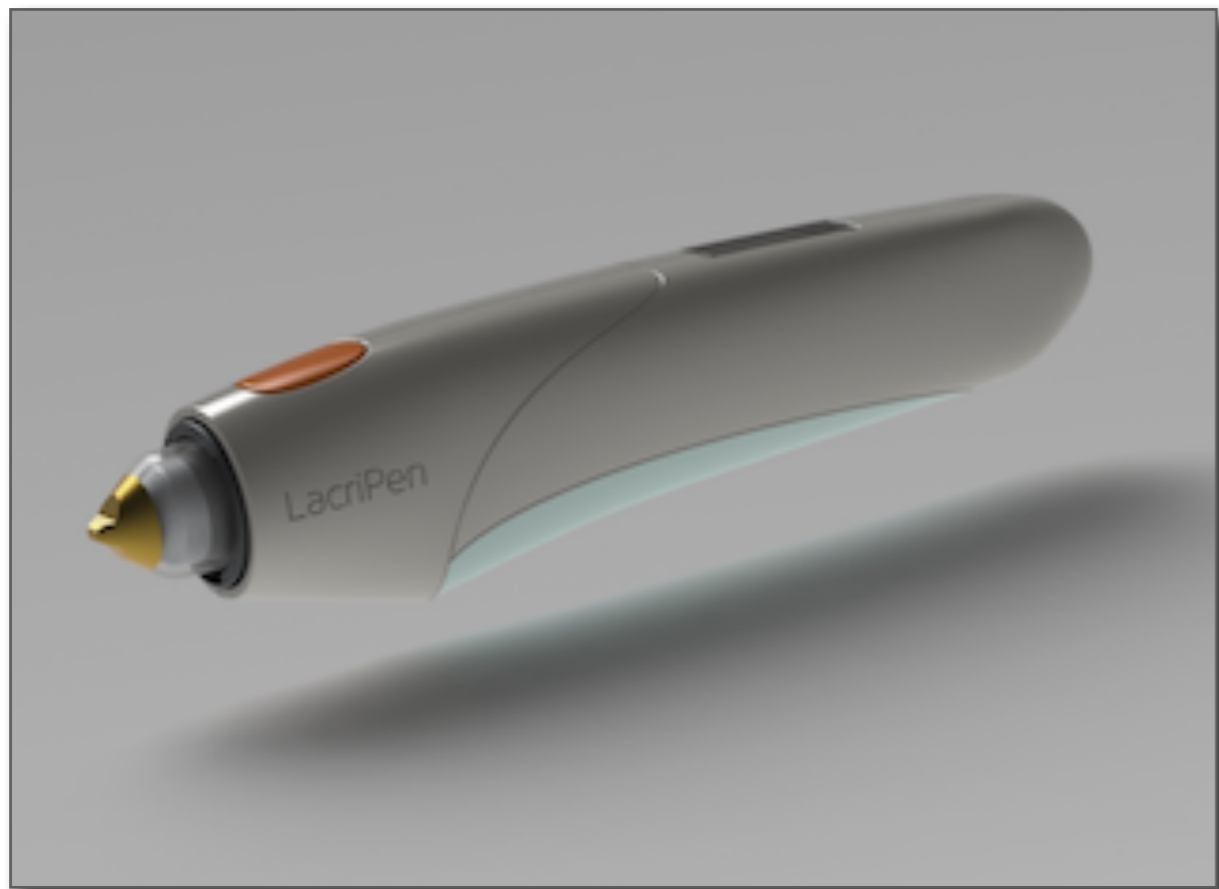
The Vital Motion Hummingbird



The Vital Motion Hummingbird is a therapeutic massage device that can provide patients relief from chronic health conditions such as fibromyalgia and chronic fatigue syndrome. The device acts to increase the blood pressure of individuals that suffer from chronic orthostatic hypotension, shown to be correlated with fibromyalgia and chronic fatigue syndrome by John Hopkins Hospital researchers. This product was registered with the FDA as a Class I medical device in February of 2013. The Hummingbird was entirely designed by Optel personnel.

Medical Device Experience

The LacriScience LacriPen



The LacriPen is a handheld surface plasmon resonance (“SPR”) device that is capable of making extremely precise measurements of the refractive index of ocular fluids for the purpose of accessing the severity of various ophthalmologic conditions. Typically, SPR devices are the size of a college refrigerator. The LacriPen, which is about the size of a whiteboard marker, is about to enter initial clinical testing during the first calendar quarter of 2017.

Medical Device Experience

The VivaScope[®] 1500



The VivaScope 1500, Lucid's second generation cellular resolution in-vivo microscope for the non-invasive diagnosis of skin cancers and other skin diseases. FDA 510(k) clearance for this device was achieved in September 2008. This device is routinely used for the diagnosis of melanoma and other skin cancers by some of the world's leading hospitals and other medical institutions.

Medical Device Experience

The VivaScope[®] 3000



The handheld VivaScope 3000, Lucid's third generation confocal imager and the world's smallest commercial cellular resolution in-vivo microscope for the non-invasive diagnosis of skin cancers and other skin diseases. FDA 510(k) clearance for this device was achieved in September 2008.

Medical Device Experience

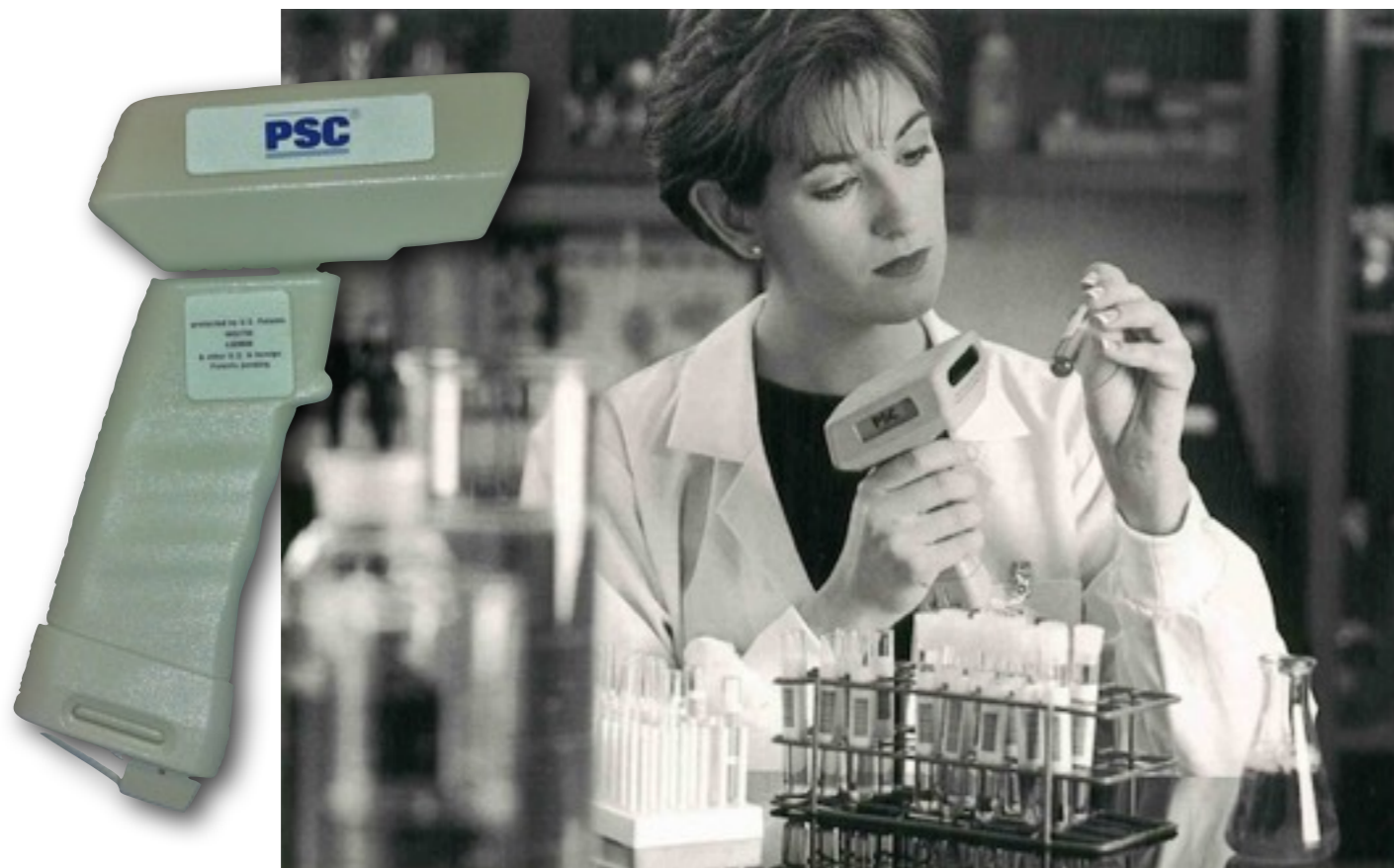
The VivaCam[®]



The handheld VivaCam[®], Lucid's second generation macroscopic imager that provides full color high resolution in-vivo images to assist in the non-invasive diagnosis of skin cancers and other skin diseases. FDA 510(k) clearance for this device was achieved in September 2008. The VivaCam serves as a companion imager to the VivaScope 1500.

High Volume Products

The PSC[®] 5300 Bar Code Scanner



The handheld PSC 5300 bar code scanner was the industry leader in terms of flexibility and performance throughout its product life cycle. This scanner was designed and sold in OEM and distributor versions that required flexible manufacturing techniques to meet the customization requirements of a multitude of customers. Order quantities ranged from a few units to thousands of units per customer and annual manufacturing quantities were in the range of several hundred thousand to a million per year.

The PSC 5300 scanner was designed and manufactured by members of the Optel team while working at PSC Inc.

High Volume Products

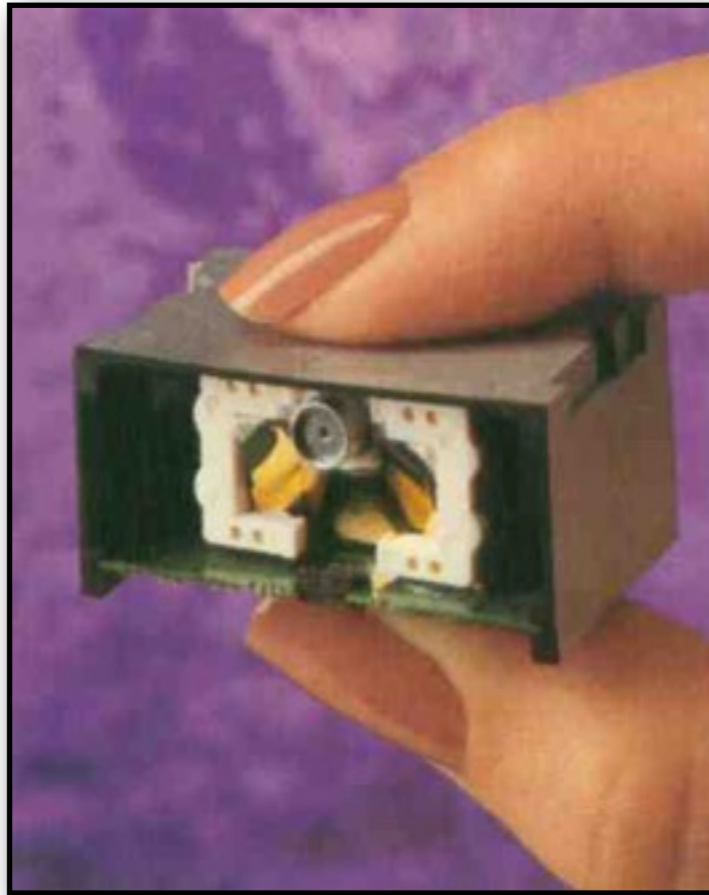
The PSC[®] Quickscan[®] Family of Bar Code Scanners



The handheld Quickscan[®] family of barcode scanners were smaller variants of the 5300 scanner and were designed in response to customer requests for a smaller lighter device that did not require the ultimate performance provided by the 5300. It was especially popular for retail point of sale applications and for use in conjunction with portable data collection terminals. The Quickscan family of bar code scanners were designed by members of the Optel team while working at PSC Inc.

High Volume Products

The PSC[®] DI-1000[®] Miniature Bar Code Scanning Module



The DI-1000 barcode scanning module was designed specifically for manufacturers of portable data collection terminals. It was small enough to fit inside the enclosure of a handheld data collection terminal and was intended to eliminate the need for a separate handheld barcode scanner attached to the portable data collection terminal via a cable. The DI-1000 was designed to avoid all of the patents of in the crowded IP space of the very litigious bar code industry.

Optical Instrument Experience

The Colortron[®]



The Colortron, developed by the Optel Team while at Lucid, Inc., was the lowest cost (\$325 OEM price) 32 spectral band color measurement instrument ever produced. It rivaled the performance of devices costing thousands of dollars more. The Colortron was custom designed and manufactured for Light Source Computer Images by Lucid and the device won numerous design awards in the graphics arts industry. Lucid manufactured approximately 15,000 of these devices over the product's life.

Optical Instrument Experience

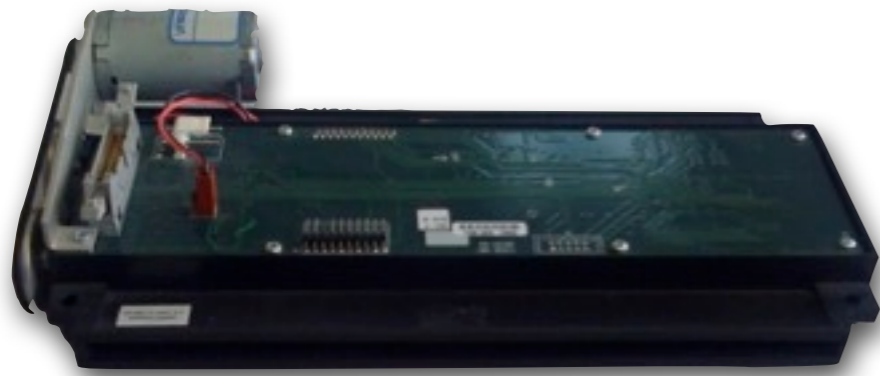
The Color Vision Spyder®



The Color Vision Spyder, a low cost color monitor calibration device, was designed by the Optel team while at Lucid for its customer, Color Vision Inc. Color Vision, a venture funded company, ran low on funding during the final stages of the development of the Spyder and commissioned Lucid to sell their software and Lucid's hardware to a third party. Lucid accomplished that assignment and subsequent versions of the Color Vision Spyder is produced and sold in high volume by Datacolor, International.

Optical Instrument Experience

The Accuvote[®] Ballot Sensor



The Accuvote ballot sensor was designed by the Optel team while at Lucid for Global Election Systems. It replaced a previous generation sensor which had difficulty reading ballots marked with anything other than a No. 2 pencil, often misread ballots that had been folded or otherwise creased (as is common for mailed absentee ballots) and mistook a shiny pencil mark for an unmarked ballot entry. Lucid's revised design eliminated all of these problems and was ultimately shown to be the most accurate reader for hand marked ballots in several states (including Florida) during the contested 2000 Presidential Election. About 14,000 of these sensors were built by Lucid for Global Election Systems.

Large Systems Experience

The Laboratory for Laser Energetics at the University of Rochester

The Laboratory for Laser Energetics at the University of Rochester was and remains one of the leading State-of-the-Art laser fusion research facilities in the United States and around the world. Optel's CEO was the project manager for LLE's first 24 beam Omega Laser System and managed the construction project team comprised of about 80 engineers, scientists and on-site technical contract personnel. The 20+ million dollar high tech project (including the building) was completed on time and on budget. The slides that follow demonstrate the scale of this unusually large state-of-the-art university project.

Large Systems Experience

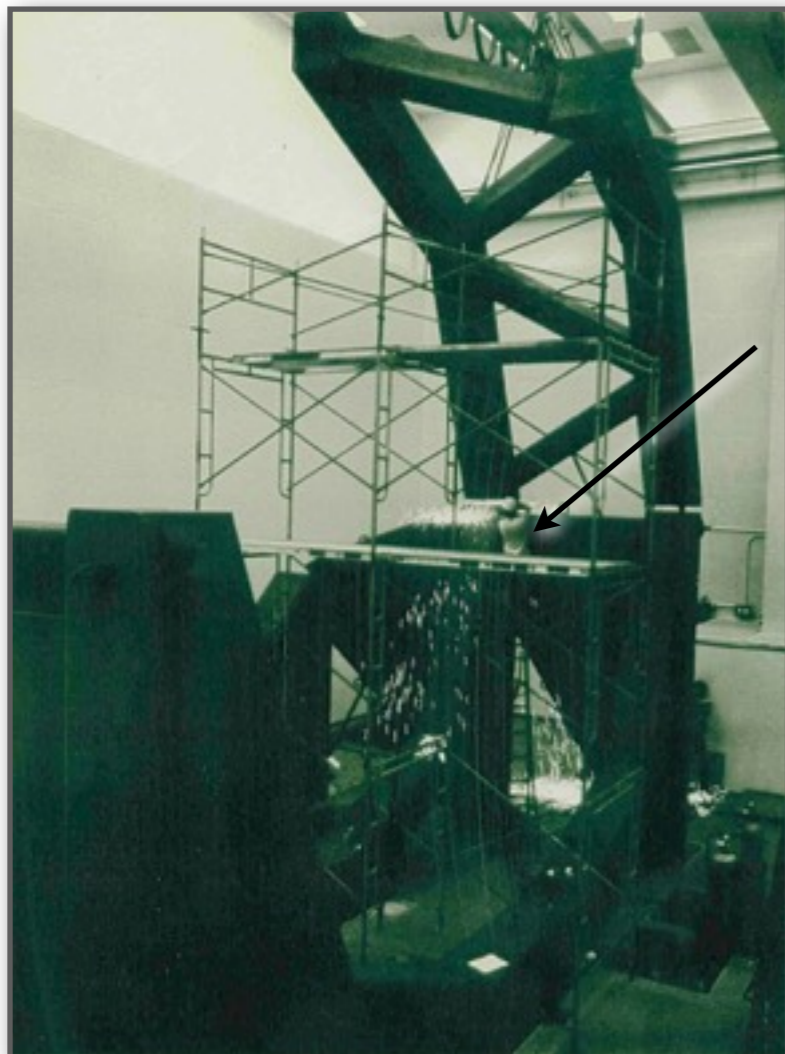
The Laboratory for Laser Energetics



LLE Facility's Omega Laser System laser bay. The Omega Laser produced peak power 12 terawatts and maximum energy per pulse of 10 kilojoules which could be focused on a 100 μm diameter fuel pellet to initiate laser driven fusion reactions.

Large Systems Experience

The Laboratory for Laser Energetics



LLE Facility's Omega System target bay turning mirror structure during construction (left) and nearing completion (right). Arrows in the photographs indicate people, which provide a reference as to the scale of the turning mirror structure.

Large Systems Experience

The Laboratory for Laser Energetics



The Laboratory for
Laser Energetics
Facility Site Plan.

Q

&

A