

September 4, 2024

Contact: Aimee Gurtis nScrypt, Inc. agurtis@nscrypt.com (407) 275-4720

nScrypt Awarded Patent for Advanced High-Speed Dispensing Technology

Orlando, FL – nScrypt, an innovator in advanced manufacturing solutions, precision micro-dispensing technologies, and next generation electronics is proud to announce that they have been granted a U.S. patent for their invention titled "Dispensing Patterns Including Lines and Dots at High Speeds." With two independent claims and thirteen dependent claims, this patent marks a significant advancement in the field of high-speed micro-dispensing of materials on substrates, particularly for electronic device manufacturing and other precision applications.

The newly issued patent (U.S. Patent No. 12,052,828 B2) covers a groundbreaking method and apparatus for depositing materials such as adhesives, sealants, and conductive materials at unprecedented speeds and with unmatched precision, and provides for the precise placement above the surface including conformal surfaces. The technology addresses several challenges in the current dispensing processes, including the ability to dispense high-viscosity materials, control of line width and height, consistent start and stop of dispensing lines, and increased throughput.

"This patent represents a major step forward in our mission to advance precision manufacturing technologies," said Dr. Kenneth Church, CEO of nScrypt and Sciperio. "Our novel dispensing method not only enhances the speed and accuracy of material deposition but also opens up new possibilities for creating more complex and reliable electronic devices. The technical team continues to innovate and this is one more example, but more importantly, is the impact this technology will have on the industry."

The patent highlights several key innovations, including the use of a pen tip with a hydrophobic surface to ensure clean start and stop points in the dispensing process, the incorporation of mechanical vibrators to enhance the flow of more viscous materials, and the capability to dispense materials from multiple nozzles simultaneously. These features allow for greater throughput and precision, making the technology ideal for applications in electronics, biotechnology, and other industries where high-performance material deposition is critical.

nScrypt and Sciperio continue to lead the industry with their cutting-edge solutions in precision microdispensing, 3D printing, next generation electronics, and biomanufacturing. The award of this patent further solidifies their position as innovators in the field and reinforces their commitment to advancing technology that drives progress across various sectors.

For more information about nScrypt's innovative technologies, please visit www.nscrypt.com.

nScrypt designs and manufactures award-winning, next-generation, high-precision microdispensing, 3D Manufacturing equipment and provides solutions for industrial applications with unmatched accuracy and flexibility. Serving the printed electronics, electronics packaging, communications, printed antenna, chemical/pharmaceutical, defense, space, and 3D printing industries, our systems are widely used in the military, at academic and research institutes, within government agencies and national labs, and in private industry.

Our line of 3D manufacturing systems are high-precision motion platforms that can be customized to meet your application needs. Taking traditional 3D printing to the next level, our machines offer traditional manufacturing options (material agnostic dispensing/milling/drilling/polishing), pick and place, up to 1.5m x1.5m area, +- 1.5 μ m accuracy, 4/5/6 axis functionality, conformal printing capabilities, digital control, high speed, automatic tool changes and extreme multi curved surfaces. nScrypt enables the user to go directly from CAD file to a fully functioning product, complete with electronics, without manual tool changes. nScrypt's headquarters are in Orlando, Florida