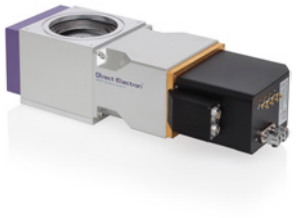
Direct Electron, LP

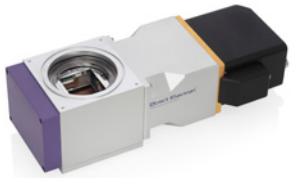
Direct Electron designs, manufactures, and delivers next-generation direct detection cameras for electron microscopy. We empower our customers to continually expand the frontiers of science. Our approach involves: (1) A strong commitment to research and development that enables us to continually offer new technological innovations, (2) Unique features to improve efficiency in data collection and processing, and (3) A collaborative culture with exceptional customer service and support.

Direct detection has revolutionized the field of electron microscopy, starting with Biological Cryo-EM and now moving into Materials Science TEM/STEM. But not all direct detectors are created equal. Our pioneering and award-winning Direct Detection Device (DDD®) sensor technology uses a more sophisticated pixel design than other direct detection cameras, delivering lower noise, better sensitivity, higher speed, and expanded versatility. Our cameras also deliver full-speed movies to users to enable motion correction, dose filtering, in situ imaging, 4D-STEM data collection, etc.

- **DE-16 Camera System**—Designed for a wide range of TEM applications from materials science to low-dose cryo-EM, the DE-16 delivers exceptional image quality with minimal noise, high dynamic range, and ultra-high speeds (subarray readout of over 6,000 fps). Its unique design makes it the best available direct detection camera for in situ TEM, 4D-STEM (as an ultra-fast pixelated area detector), DTEM/UTEM, low-dose HREM, holography, and Lorentz microscopy.
- **DE-64 Camera System**—With more than 67 million pixels (8k×8k), the DE-64 is nearly 3× larger than any other direct detector on the market, yielding many times higher throughput for high-resolution single-particle cryo-EM and a huge field-of-view for cellular tomography. Additionally, our unique single-pixel electron counting technology delivers unprecedented DQE for the most challenging specimens.
- **DE-DirectView Camera System**—With high sensitivity and excellent resolution, the DE-DirectView offers cost-effective direct detection for biological and material science applications. As the first commercially-available direct detection camera, the DE-DirectView (4k × 3k pixels) has a proven history of reliability. The eighth generation.
- **LV-126 Camera System**—A direct detection camera optimized for low-energy (<40 kV) electron imaging. Compared to conventional MCP + CCD detectors, the LV-126 delivers >6× more information per image with significantly higher resolution and a larger field-of-view.
- **DE-FreeScan**—A new scan generator for scanning transmission electron microscopy (STEM) that enables arbitrary scan patterns, subsampling, compressive sensing, and 4D-STEM. The DE-FreeScan can be operated for conventional BF/DF STEM using up to four analog inputs, or it can be run together with our DE-16 direct detection camera for synchronized high-speed 4D-STEM.

Since our founding in 2007, Direct Electron has been driven by collaboration. Our leadership team consists entirely of Ph.D. scientists who love to work together with fellow scientists to address challenges and develop new technology and methods. Please contact us if you have any opportunities for collaboration related to any kind of electron microscopy.





How to find us

Direct Electron, LP
13240 Evening Creek Drive, Suite 311
San Diego, CA 92128, USA
Tel: +1 858-384-0291
Email: info@directelectron.com
www.directelectron.com