

## Pinpoint Photonics Cuts Development Time in Half for Microscope Cameras with Laser Illumination

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Lasers are used to illuminate objects being observed under a microscope in many applications, such as wiring corrections in the display panel manufacturing process and cell sorting and cell stimulation in medical and biological research. [Pinpoint Photonics](#) developed a camera with laser illumination using the C mount standard by integrating two technologies: camera imaging and laser illumination. This technology has mainly been used in specialized techniques such as optical coherence tomography (OCT). Koichiro Kishima, an expert on optical design, has applied the technology for use in common microscopes.

MATLAB® provides a single software development environment to integrate the control of multiple devices (e.g., cameras, microscope stages, MEMS devices, and laser pointers) and the scanning of images to capture a point of interest. The [MATLAB and Simulink for Startups](#) program enabled the company to access MATLAB at a startup-friendly price and reduced the initial cost of development. Pinpoint Photonics completed the optical design and its algorithm development in only 6 months. The system went into production a few months after its development.

### Advantages of using MATLAB:

- Develop hardware control and capture and analyze images in a single environment
- Develop optical design/analysis and control algorithm in 6 months
- Access MATLAB at a startup-friendly price

“ MATLAB is a must for startups like us, who are seeking to shorten time to market by leveraging core technology. ”

