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WELCOME TO...

SHARPER IMAGES, SMARTER CONTROL:

The LensConnect Remote Control Series Explained

DECEMBER 8, 2023

Please turn off your video, open your chat, and ask any questions in the chat. Thank you!

About Us

Jonathan Hackney | Director of West Coast Sales

- Jonathan has a history of working in the industrial automation industry
  - Enjoys talking & learning about technological advancements, especially machine vision
- Computar has 40+ years of innovative optics
  - Japanese engineering & global agile production facilities

Why remote-controlled plug-and-play lenses?

For multiple industries, plug-and-play remote-controlled lenses are saving time and money. Remote-adjustment plug-and-play lenses are needed in facilities that monitor goods and the safety of their workers. The remote adjustments make it easy for inventory management in large warehouses, monitoring goods' quality in factories, and dynamic environments where adjustments aren't always the easiest.

Why remote-controlled plug-and-play lenses? *(continued)*

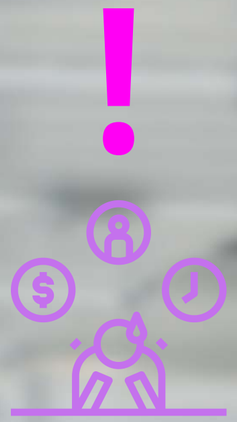
Dynamic Environments

Multiple views may be needed to better catch any defects or to focus on another point of view at a different time of day when the environment has changed.

Space Constraints

There may not be enough room to install multiple cameras in environments where space is limited, such as on a crowded conveyor belt system. A single lens capable of providing different views can overcome this limitation.

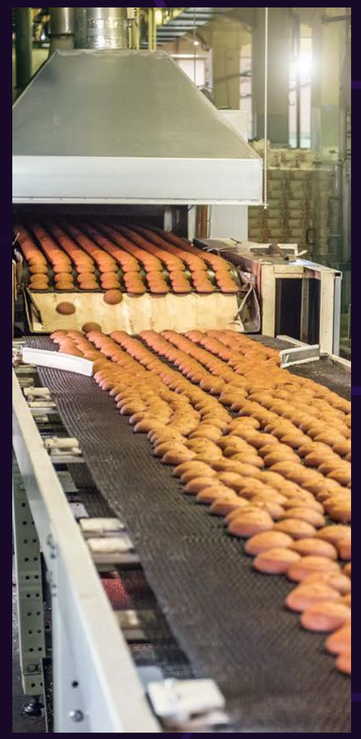
Standard Lens Problems:



1. Complex integration
2. Manual configuration
3. Calibration difficulties
4. Lack of standardization
5. Limited software support
6. Increased downtime
7. Inconsistent performance
8. Higher maintenance
9. Non-scalability
10. No remote controls

Top 3 Standard Lens Problems

within factories, warehouses, facilities, and other sites



Low visibility

Manual and older lenses in large facilities need higher resolutions in order to best complete the job of inspecting and monitoring products

Difficult to reach for adjustments

Companies will be forced to pay more in labor and equipment to reach the older lenses for adjustments

Lack of customization

Older lenses cannot adjust their focus in day-to-day operations that may need various focal points, such as on a conveyor belt

Innovative Solutions

The plug-and-play machine vision lens design solves for a variety of problems that arise in these applications.

Solution 1: High Resolutions

With resolutions ranging from 5 MP to 20 MP, we've got you covered.

Solution 2: Remote Adjustments

These C-Mount lenses have various **operation distances ranging from 0.1m to Infinity** and **focal lengths from 4mm to 96mm.**

Solution 3: User-friendly Software

Our software is not only included, it is simple to set up and to use on your device.

What Makes the LensConnect Series Different: USB

USB Control

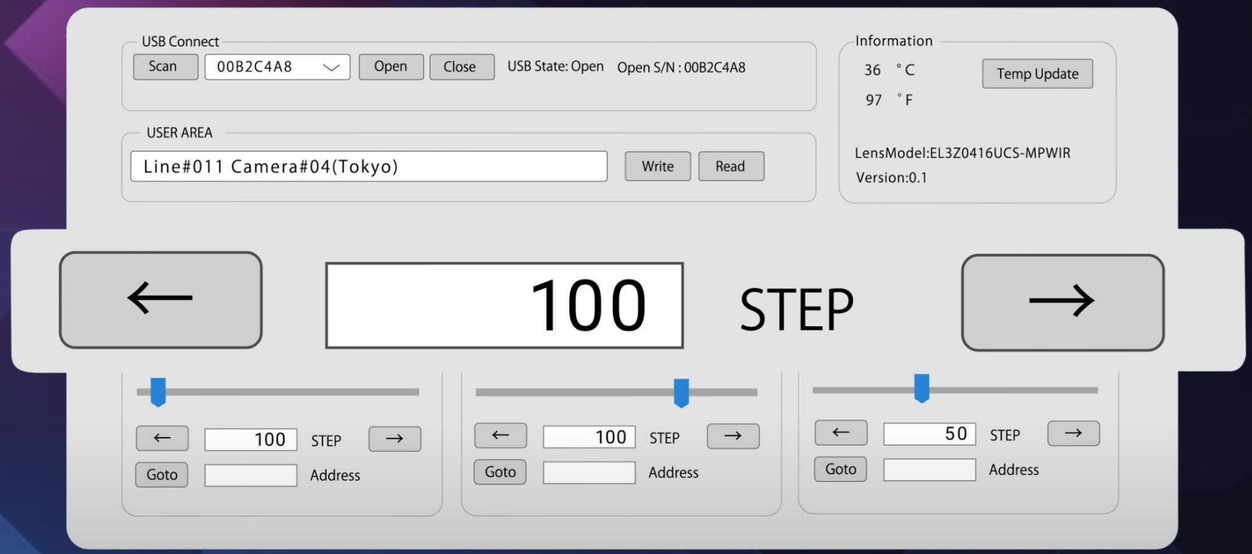
The remote control is easy to achieve—even without prior knowledge of the lens.

Data is transmitted straight to your lens from the computer through the USB connection.

What Makes the LensConnect Series Different: Software

Software

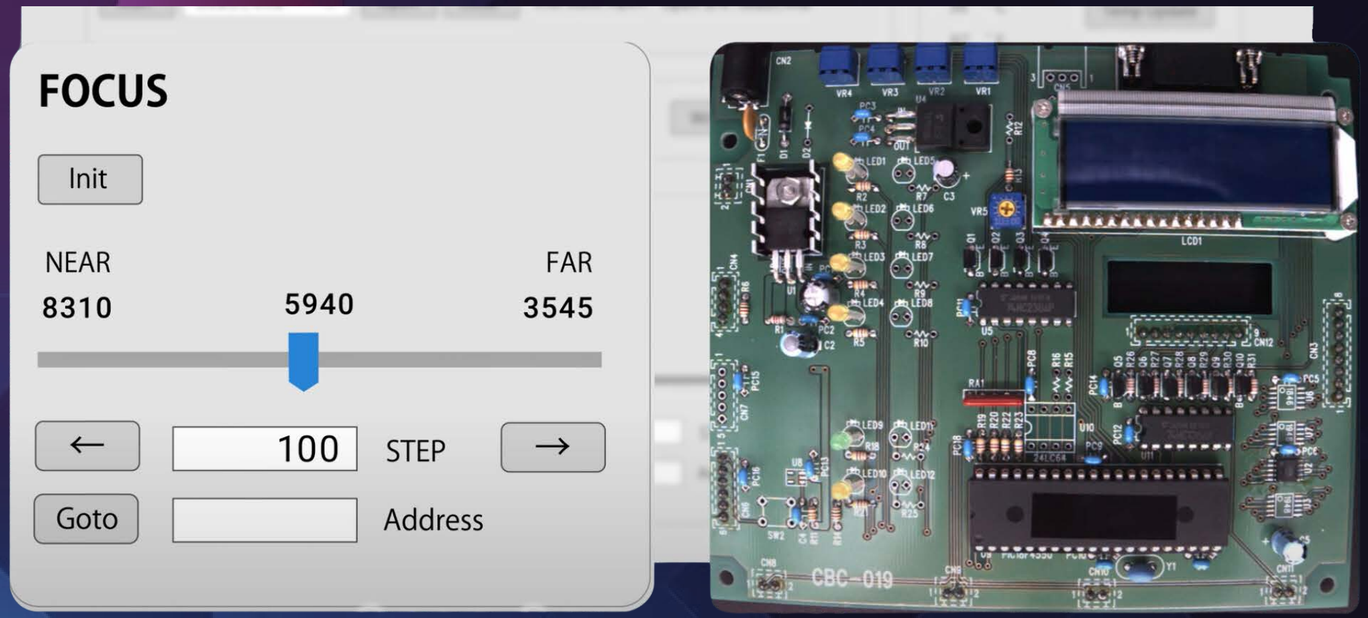
It comes with a simple set-up of software compatible with Windows or Linux



What Makes the LensConnect Series Different: Focus

Precise Focus

Stepper motors enable precise focus control and high repeatability

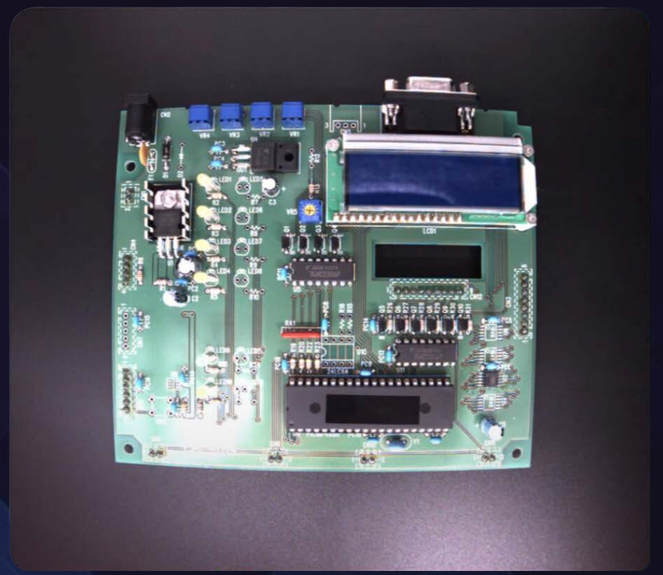


What Makes the LensConnect Series Different: Iris

Precise Iris

Remotely adjust the aperture (iris)

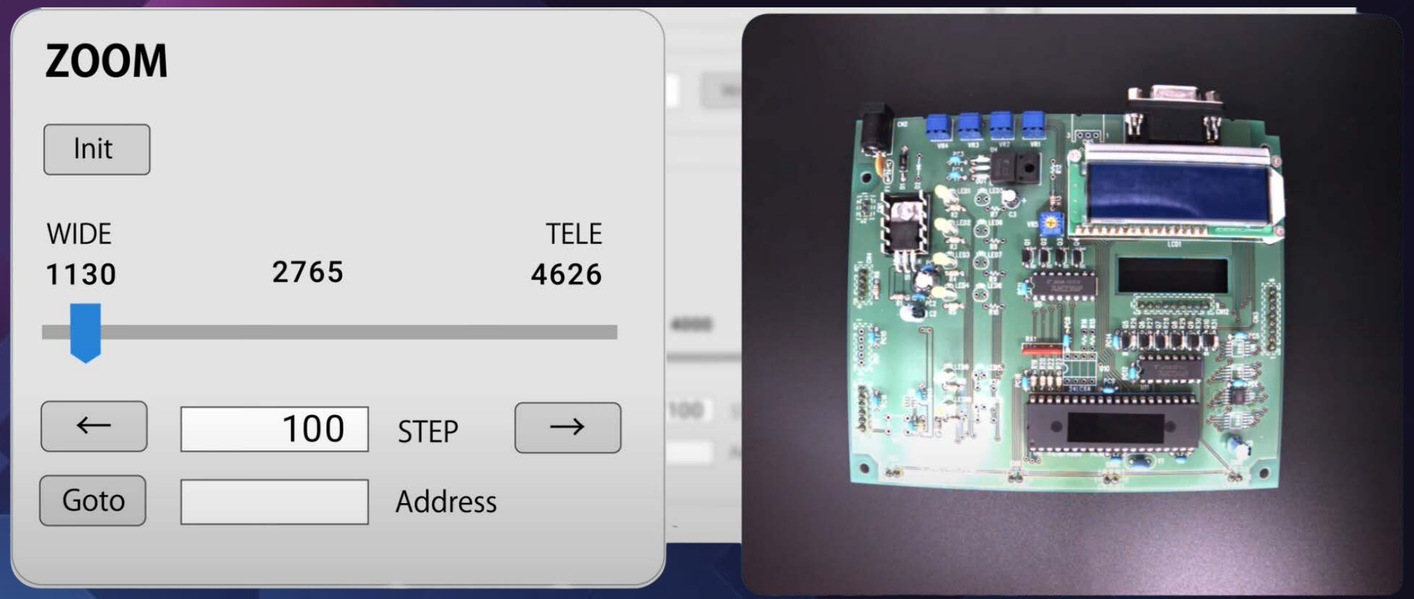
- Useful where precise control of light entering the lens is necessary, such as in microscopy, photography, or automated imaging systems.



What Makes the LensConnect Series Different: Zoom

Precise Zoom

Enables precise, repeatable zooming from a distance, which can be automated and integrated into larger imaging systems.



** Zoom adjustment for varifocal models only.*

How the Technology Works

- **Fixed increments:** the lens can return to a specific position with a high degree of accuracy
- **Floating focus design:** delivers ultra-high resolution from near to far
- **Programmability:** use of digital signals
- **There is no need for feedback systems:** they operate on the principle of moving a set number of steps from a known start position
- **Quick response:** can respond quickly to control signals

How the Technology Works, continued

The **inner focus mechanism** achieves high-speed focusing as well as reducing aberration due to Working Distance (WD) fluctuation.

- **Precision**: Stepper motors move in discrete steps, with each step corresponding to a small, precise rotational movement. This allows the motor to control the lens's focus mechanism very accurately, moving the lens elements to the exact position needed for sharp focus.

- **Durability**: Stepper motors are known for their durability and long operational life, which is important in industrial environments where machine vision systems are expected to perform reliably over long periods.

- **Easy Integration**: Due to their widespread use and standardized control methods, stepper motors are easily integrated into plug and play lenses and can be controlled using common machine vision software platforms.

Software Capabilities

Not only is our software free with each purchase, it is user-friendly and easy to install.

01 Compatible with Windows or Linux

It is open-source software and we can provide the program source software to easily to get you up-and-running

02 Remote Zoom & Focus Adjustments

You can adjust the focus on any LensConnect lens remotely, and adjust the zoom on the varifocal lenses remotely. You can even adjust the iris of each lens.

03 User-friendly

You don’t have to be a software engineer to be able to use our software. Anyone from warehouse managers to line workers can easily use it.

LensConnect allowed us to create greater ease of product set-up for our end-users. This has put our product in a greater position to be successful without the end-user needing to know the intricacies of setting up a lens.
[It was] straightforward to integrate into our application.

—Current Client

Q & A

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THANK YOU