

## Motorized Lens Autofocus Vision System

SOLVE OCCASIONAL ZOOMING AND RE-FOCUSING VISION TASKS WITH REMOTELY CONTROLLED MOTORIZED LENS.

Basler's motorized lens autofocus vision solution is designed and intended to be used when occasional zooming and re-focusing is required for industrial applications such as video surveillance, robotics, and factory automation.

Typically, machine vision systems rely on cameras with fixed lenses that do not allow adjustments to their focal length, field of view, or zoom level. With the integration of a motorized lens, the camera can automatically adjust itself to accommodate diverse objects being inspected, regardless of their varying sizes and shapes, even when operating at the highest resolutions.

### Solution highlights



Integrated lens control from camera



Preloaded AF algorithm in camera FPGA



Configure via one API, Basler pylon, instead of juggling different APIs

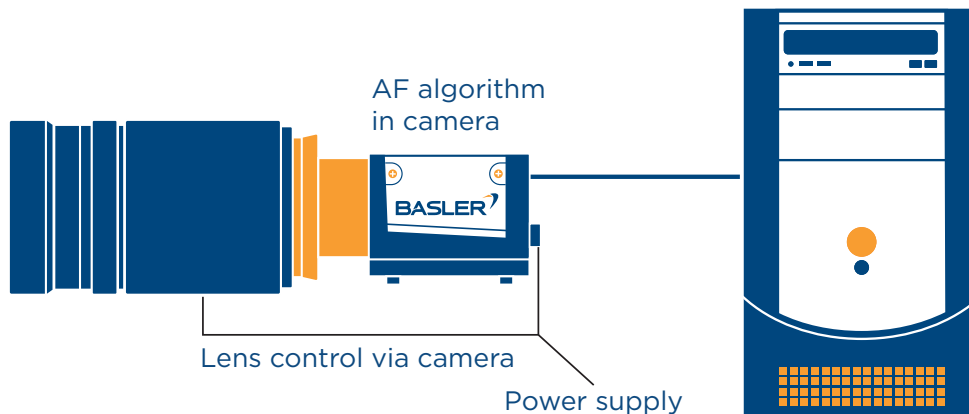


Flexibility in zooming and IR cut filter options

### How does the system function?

Motorized lenses autofocus is a type of passive autofocus technology. It is based on contrast detection of multiple images the camera acquires. When the camera with motorized lens zooms in under system command, it magnifies the subject so it is easier for the vision system to detect the edges and details of the subject. This allows the camera to refine the focus and ensure that the subject is in sharp focus.

### Streamline your automation efforts



## Solution Example

### Key Specifications of the Vision System

<b>Working Distance (wide side)</b>	200 mm - infinite
<b>Working Distance (teleport side)</b>	3 m - infinite
<b>Angle of View (wide side)</b>	42.2°(H) / 42.2°(V)
<b>Angle of View (teleport side)</b>	7.4°(H) / 7.4°(V)
<b>AF Frame Coverage</b>	97 %

### Customized Camera (model: a2A4504-18umAMB)

<b>Sensor Format</b>	1.1" (IMX541)
<b>Resolution (H x V)</b>	4504 px x 4504 px
<b>Frame Rate</b>	18 fps
<b>Interface</b>	USB 3.0
<b>Pixel Bit Depth</b>	8, 10, or 12 bits
<b>Power Supply</b>	via USB 3.0 interface
<b>Power Requirement (typical)</b>	3.7 W

### Motorized Lens (model: VL6Z1626SC-MPYIR)

<b>Focal length</b>	16 - 96 mm
<b>F-number</b>	F2.6 - F16
<b>Weight</b>	330 g



## More Possibilities by Customizing Basler Cameras



### ace 2 R PRO

**Sensor Format:** up to 1.2"  
**Frame Rate:** up to 168 fps  
**Interface:** USB 3.0 or GigE



### boost R

**Sensor Format:** up to 35 mm  
**Frame Rate:** up to 400 fps  
**Interface:** CoaXPress 2.0

Basler AG  
Germany, Headquarters  
Tel. +49 4102 463 500  
sales.europe@baslerweb.com

Basler, Inc.  
USA  
Tel. +1 610 280 0171  
sales.usa@baslerweb.com

Basler Asia Pte Ltd.  
Singapore  
Tel. +65 6367 1355  
sales.asia@baslerweb.com