

WE CHANGE YOUR VISION.



# YOUR VISION IS OUR VISION.

## **Our vision**

Through the engagement of our colleagues, we succeed in offering our customers innovative and high quality customized vision solutions and have become a world leader in machine vision.

Although that sounds like an ambitious goal, we work on it every day – with maximum commitment and in collaboration with our customers. Because innovative, comprehensive solutions are our passion

## **Our mission**

We improve our customers' competitiveness by accompanying them holistically and sustainably in their projects and offering all parties new perspectives through our passion for machine vision.

How do we do this? By continuing in what has distinguished our company for more than 35 years: Innovative technology, customer-oriented solutions, individual consulting and first-class service. Implemented daily by our colleagues who give their best so that our customers get the best.

A brand of Balluff



**MATRIX** VISION

# TIME TO MARKET – YOUR COMPETITIVE ADVANTAGE

To us, you are not just a customer. You are our partner, and we will always be at your side to offer help and advice. We will never lose sight of your goal and will always strive to find the ideal solution for you. Through this, we will reduce your time to market, giving you a competitive advantage.

Our priorities:

- Comprehensive, personal customer service and support in all project phases with fast response times
- Knowledge sharing through customized, interactive workshops and training
- Top quality standards and longer-than-average solution availability.

Thanks to our modular camera kit, our standard products are an ideal basis for OEM projects, customized products, or new product developments. Smart features built into our products shift tasks to the camera, improving implementation quality. Reduced use of cables and controllers and a lower load on the host PC mean your overall system is simpler, saving you time and money.

You can find more information about the comprehensive camera kit on page 17.



**MATRIX VISION:  
1986**

marked the company's foundation year

Since

**2017**

MATRIX VISION has become a subsidiary of Balluff GmbH and the company's competence center for industrial image processing

AT A

**GLAN**



Over  
**80,000** possible  
industrial camera  
configurations



**68** branches with local  
MATRIX VISION product  
specialists via Balluff GmbH

**CE**

**54,000**

MATRIX VISION products are  
delivered to our customers  
worldwide per year



**. STRONGLY POSITIONED.**

Over  
**120**

employees









# WE ARE HERE FOR YOU WORLDWIDE

**Profit from a global distribution and support network with 68 branches worldwide and, first and foremost, from the synergies of two market leaders.**

Our SmartVision products are sold globally through our parent company, Balluff, providing traditional support as a specialist in high quality OEM components and flexible customization. These include the intuitive BVS Cockpit software with high-performance smart cameras and SmartVision controllers for multi-camera systems, in conjunction with our industrial cameras.

# AND WE ARE AT HOME IN MANY DIFFERENT SECTORS

## **Automotive**

- Tire inspection
- Quality control
- Parts identification
- Production control
- Component positioning

## **Packaging, food, drinks, and pharma**

- Bottle inspection
- Reverse vending machines
- Food inspection
- Packaging inspection
- Blister inspection
- Code identification

## **Medicine**

- Dental medicine
- Ophthalmology
- Dermatology
- Microscopy
- Digital pathology
- Movement analyses

## **Traffic technology**

- Toll control
- Number plate recognition
- Speed checks
- Traffic signal monitoring
- Traffic monitoring
- Rail and air traffic technology

## **Life sciences**

- Lab automation
- Process control
- Blood analysis
- Sample screening
- Tracing

## **Measurement technology**

- Coordinate measuring machines
- Tool presetting
- 3D measurement
- Geo-mapping
- Damage analysis

## **Logistics**

- Order picking
- Tracing
- Identification
- Transport management
- Integrity checks

## **Electronics/semi-conductors**

- Inspection (wafers, components, PCBs)
- Positioning
- Bonding inspection
- Panel inspection (solar, LCD)
- Solder joint inspection
- Mounting inspection



# VERY GOOD

## IS NOT GOOD ENOUGH FOR US

### **Quality is important to us**

One of our top priorities is to ensure our products and services are high quality. This also applies to services provided in our name in retail and customer service. Since 2006, we have had our quality verified and certified to DIN EN ISO 9001 standards through regular audits.

### **We are driving standards forward**

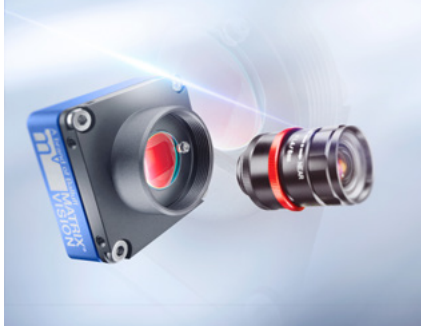
Since our start, we have been a driving force in standardization bodies for GigE Vision, USB3 Vision, and EMVA1288, so when you use our products, you can be sure you're working with state-of-the-art technology.

### **We are getting better every day**

We generate a nightly update for our software using the latest sources. Then we install the results on a test system and test them thoroughly. The tests contain significantly more than 500 different individual steps.

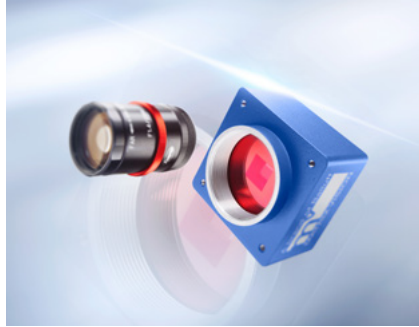


# INDUSTRIAL CAMERAS



## mvBlueFOX-IGC

These USB 2.0 basic cameras with all essential features are ideal for OEM applications where space is tight and low costs are a priority.



## mvBlueFOX3-1

A compact design and low cost are the defining features of the mvBlueFOX3-1 series, which combines a high-bandwidth USB3 interface with cost-effective CMOS sensors.



## mvBlueFOX3-2 and mvBlueFOX3-4

The USB3 Vision camera offers higher resolutions and frame rates, plus camera-based smart features that considerably reduce the load on your host system. The mvBlueFOX3-4 is a separate hi-res version for larger sensor formats up to APS-C.

Our industrial cameras stand out from the crowd thanks to their high image quality, robustness, and FPGA- and image memory-based smart features. A wide selection of sensors and interfaces tops off our compact camera series.



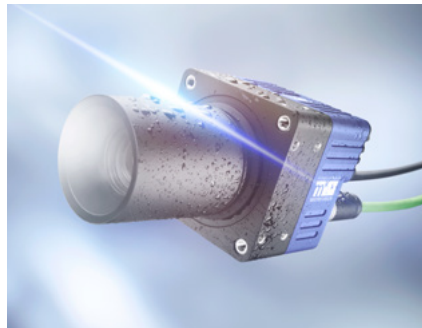
### mvBlueCOUGAR-X and -X IP67

These GigE Vision camera series are our standard solution for industrial jobs requiring high resolutions, large distances between the camera and analysis unit, and low image transfer latencies. The product version with IP67 protection and M12 connectors is suitable for harsher environments.



### mvBlueCOUGAR-XD

The GigE Vision camera with two Gigabit Ethernet interfaces for double the bandwidth executes preprocessing steps directly in the camera, reducing the CPU load of the host system. Thanks to the high-speed buffer, images can be written faster to the camera's memory than transferred depending on the sensors.



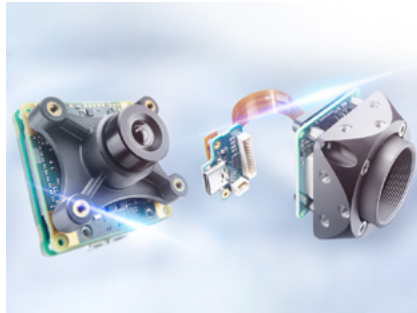
### mvBlueCOUGAR-XT

The 10GigE industrial camera series enables high productivity and precision thanks to the performance of state-of-the-art image sensor technology and a net data rate of 1245 MB/s. With protection class IP67 as well as industrial plug connections, the camera series is designed for use in harsh environments.



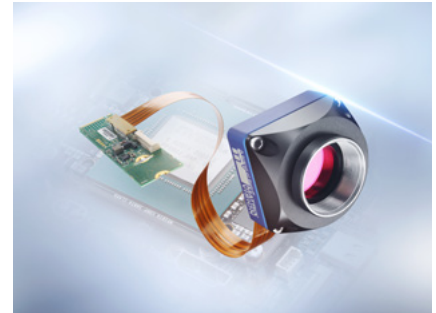
# EMBEDDED VISION

Whether it's due to a lack of installation space or special tasks that require innovative image processing solutions with local intelligence, **embedded vision solutions** are becoming increasingly popular. The performance improvements of single-board computers in particular have provided an additional boost, making many different inspection and identification applications possible. We offer a **comprehensive camera kit** based on a board-to-board connector system. The power supply, data transfer, and digital I/Os can all be connected using the connector.



## mvBlueFOX3-3M and -5M

The board-level and single-board camera series combine flexibility, image quality, and high performance with low costs and are part of our **camera kit**. The board-level camera series with a separate sensor board allows the entire range of sensors to be used thanks to its modular system.

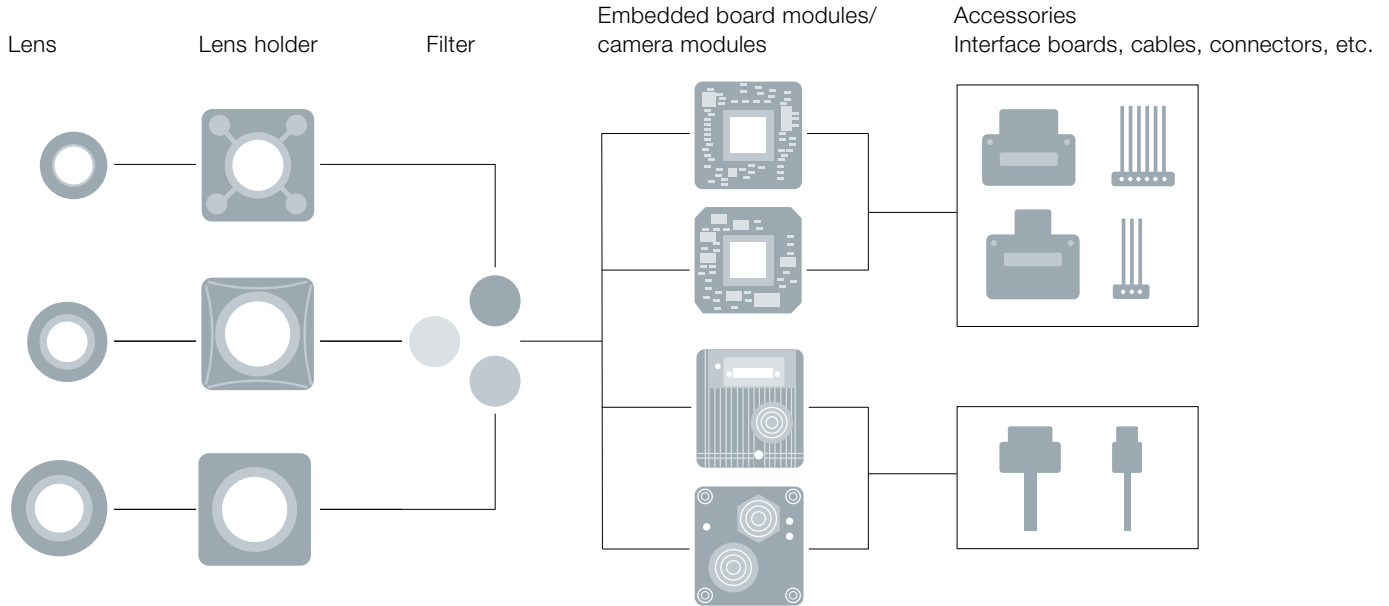


## mvBlueNAOS

With PCI Express, this camera module series has an interface for direct data transfer. Without detours via other interfaces, a transfer of the image data directly into the memory is guaranteed. This enables top performance for embedded vision applications.



# CAMERA KIT



# 3D CAMERA

MATRIX VISION has entered a long-term partnership with Roboception in order to provide user-friendly and adaptable products for the 3D machine vision market and for robot users. The **3D camera family rc\_visard** was developed for stationary and mobile robot applications such as bin picking or the navigation of driverless transport systems.

An on-board software package enables very easy use of the rc\_visard as a 3D vision sensor. Additional intelligent tools for more specialized tasks are provided by the optional software suite rc\_reason. Furthermore, the integrated GigE Vision interface allows the connection to a PC for further processing of camera data and for creating individual 3D applications.



# SMART CAMERA

**Smart cameras** are all-in-one solutions with an on-board processor and software. They process data where it is generated and output the results or control downstream processes. This gives you a better power/performance ratio than with traditional camera/PC solutions, plus less cooling is required and the compact design allows the cameras to be used and upgraded more flexibly. The smart cameras developed by us are available through Balluff's global sales network. For OEM projects, we – as always – offer different board versions and customer-specific solutions.



# ACCESSORIES

Every vision solution is different and has its own particular requirements, including when it comes to accessories. Our experts will be happy to help you find the right lights, lenses, cables, etc. We will find the right accessories for your needs from a choice of several hundred products.



# SOFTWARE


With our **mvIMPACT Acquire SDK** for image capture and image preprocessing, you can integrate cameras and vision components easily into complex applications. The framework supports all Linux and Windows versions and a wide range of programming languages. It is compatible with the latest standards such as GenICam, GigE Vision, and USB3 Vision.

The browser-based **BVS Cockpit** is a software tool to create and configure inspection programs intuitively. It does not require any prior knowledge of image processing or programming thanks to intelligent setup wizards. You do not need to manually adjust the majority of the parameter settings as you normally would.

When it comes to OEM projects, MATRIX VISION is directly available as a partner, with customized solutions.



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**We Change Your Vision.**

**[www.matrix-vision.com](http://www.matrix-vision.com)**