

LAOWA

FULL FRAME

1X



45mm f/2.8 1-5X APO

Aksen

Ultra Macro Series

17.5mm f/1.7 5-10X APO

5X



10X

Launch date: 31 July 2026

Time: GMT 14:00,HKT 22:00

E Z RF EF PL
F L X MFT

Mount Options

Aksen

Aksen draws its name from two converging ideas — one rooted in language, the other in optics.

In linguistics, Aksen means accent — the distinctive way a voice carries its character. An accent is not merely how words are pronounced; Every accent tells a story of origin, precision, and identity.

In optics, an axis is the invisible line of perfect alignment — the central spine along which light travels with absolute precision. It is the foundation upon which every great lens is built.

Aksen unites both. Just as an accent gives a voice its defining character, the Aksen lens series gives your imagery its defining signature. And just as an optical axis demands uncompromising precision, Aksen delivers that precision across an extraordinary 1–5X and 5–10X macro magnification range that redefines what a macro lens series can be.

Why Aksen?

Current Challenge:

“Ordinary” Macro (<2X)	Advance (2-10X)	Professional (>10X)
• Great for most of the subjects • Easy to handle • Plenty of lens options	• No dedicated lens options (Laowa 2.5-5X or used market) • Only DIY solutions • High barrier to entry	• Aurogon or Microscope • <i>Not for everyone</i>

The Problem with Current Solutions

- Variable working distance
- Change in lens length
- No ready-made option beyond 5X
- High cost / Low resolution for DIY setups

Laowa Aksen

Design for **Full-Frame** camera with unmatched optical quality. Incredible compact size and weight under 650g

Aksen 45mm f/2.8 1-5X Ultra Macro APO

1-5x Magnification

- Fixed Working Distance (~40mm)
- Parfocal Zoom
- Internal Zoom
- APO Design



Aksen 17.5mm f/1.7 5-10X Ultra Macro APO

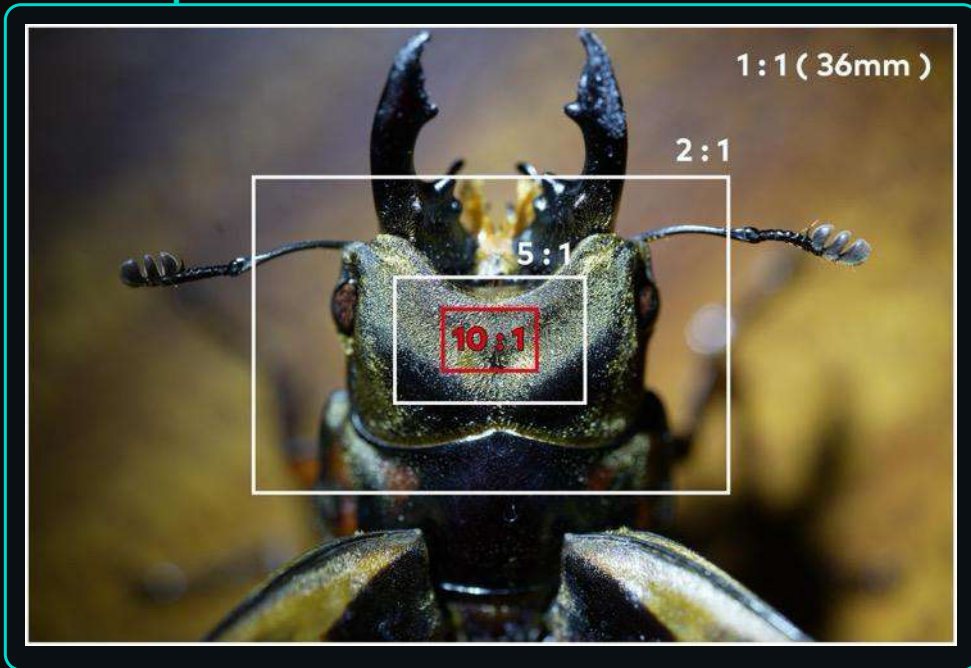
5-10x Magnification

- Fixed Working Distance (~22mm)
- Parfocal Zoom
- Internal Zoom
- APO Design
- **Ready for Coaxial Lighting**



What Does it Mean for 1-10x in a Full Frame Sensor?

Macro Reproduction Area



Subject Size to Fill the Whole Frame

1x – 5x Range

1x:	36.0 × 24.0mm
2x:	18.0 × 12.0mm
3x:	12.0 × 8.0mm
4x:	9.0 × 6.0mm
5x:	7.2 × 4.8mm

6x – 10x Range

6x:	6.0 × 4.0mm
7x:	5.1 × 3.4mm
8x:	4.5 × 3.0mm
9x:	4.0 × 2.7mm
10x:	3.6 × 2.4mm

Fixed Working Distance

Different magnification at a **fixed position**.

No RE-FOCUS needed

1-5x Magnification Range

~40mm Working Distance

5-10x Magnification Range

~22mm Working Distance



Internal & Parfocal Zoom

Constant Lens Size

Maintains the exact physical length of the lens and will not interrupt the object while zooming.

Less Limitation in Diffusion setup

It is extremely important for both ready-made diffuser and DIY solutions.

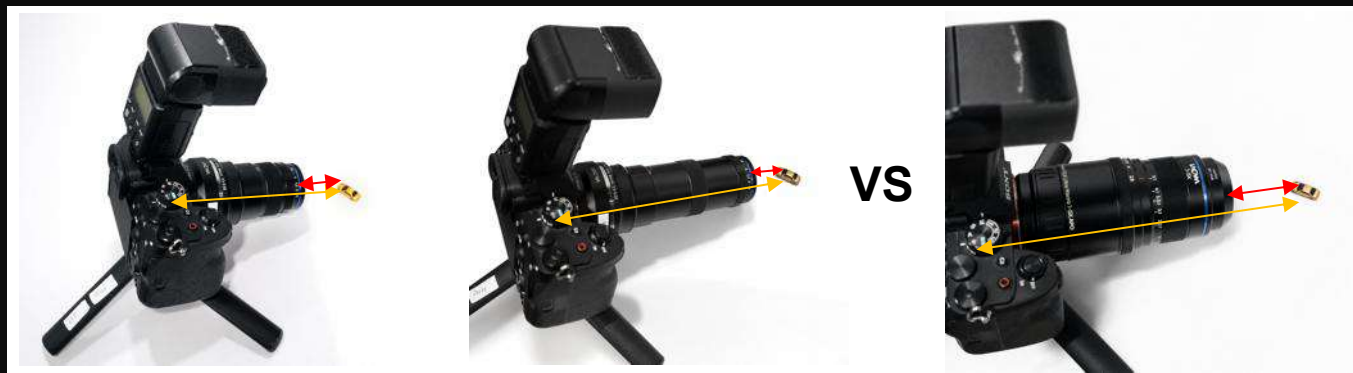


25mm f/2.8

Aksen

With internal Zoom and Fixed Working Distance

Zoom freely from 1X to 5X or 5X to 10X without moving your camera or subject — your entire setup stays perfectly in position.



25mm f/2.8

Aksen

Consistent Focus

Keeps sharp focus completely consistent across the zoom range.

Perfect for videography

Zoom in & out without disturbing your lighting, reflectors, or any other elements of your setup. Everything stays exactly where you placed it. (**Compensation for exposure changes at high magnification is required.*)

<https://drive.google.com/file/d/1QeAeluDNCUq1iBUpBiVxgY8v2Nmn1BaG/view?usp=sharing>



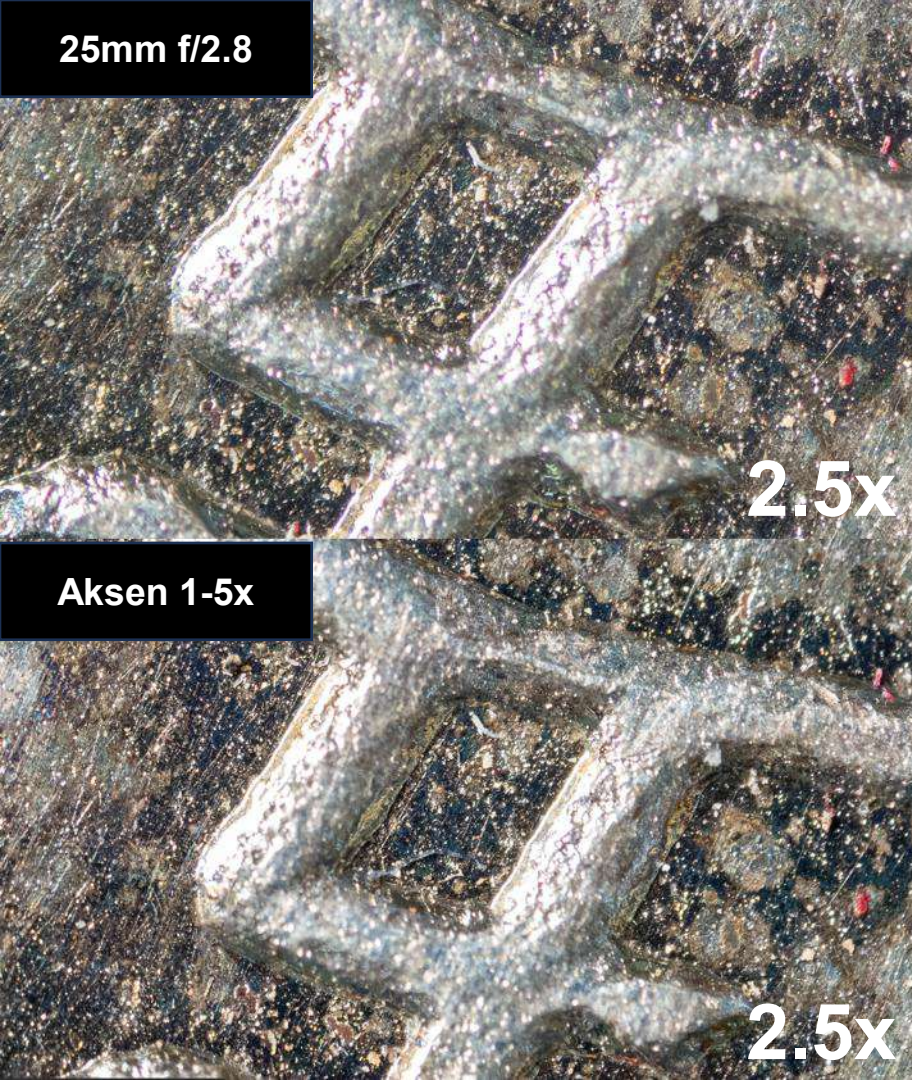
APO Design

Close to zero Chromatic Aberration

Apochromatic correction eliminates the color fringing that plagues standard macro lenses — especially critical when shooting at higher magnification where aberrations compound exponentially.

The Aksen series is purposely engineered to eliminate Chromatic aberration, provide ultra sharp image with clinical precision and zero wavelength divergence.

25mm f/2.8



Aksen 1-5x

2.5x

2.5x

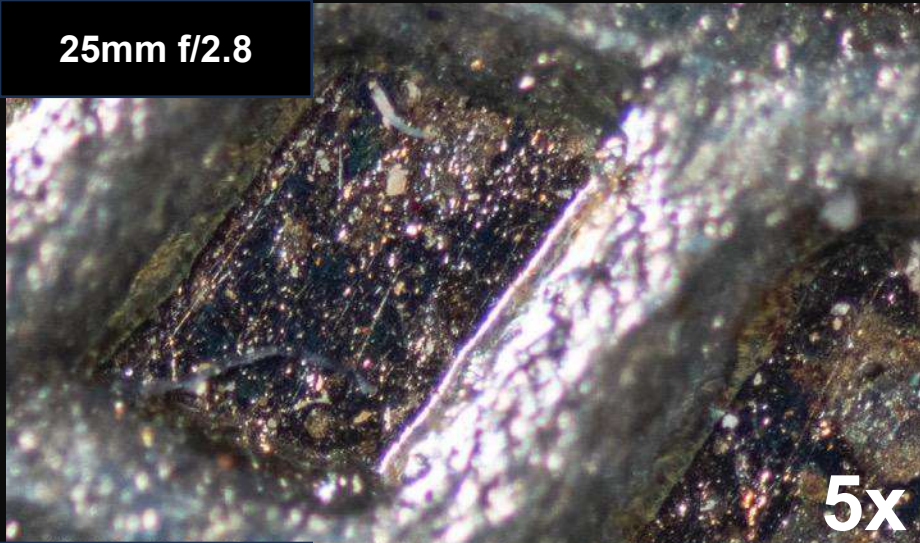
Laowa Aksen 1-5x VS

Laowa 25mm f/2.8 2.5-5x Macro

APO design of the Aksen:

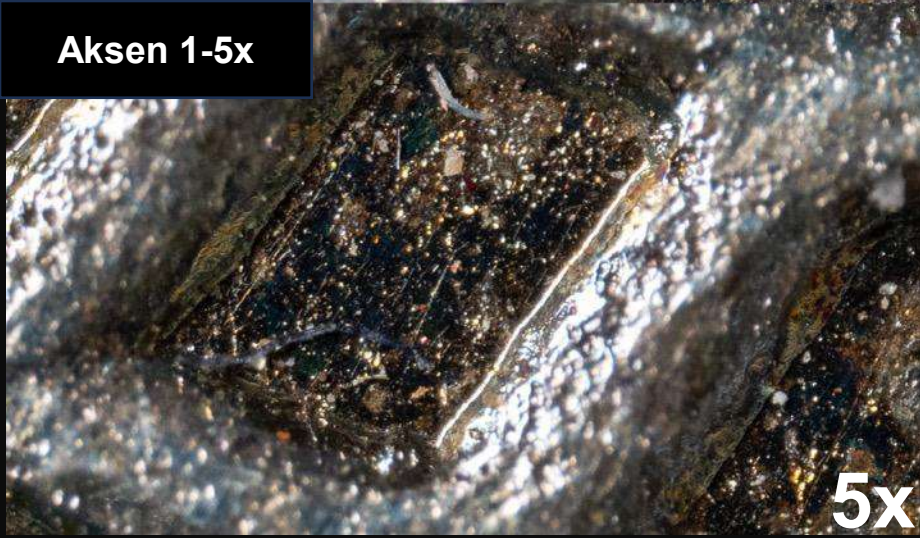
- Provide extremely sharp image
- More details and texture can be captured

25mm f/2.8



5x

Aksen 1-5x



5x

Laowa Aksen 1-5x VS Laowa 25mm f/2.8 2.5-5x Macro

Chromatic aberration (CA) is visible on the 25mm f/2.8 lens

- Higher magnification make CA more profound.

APO design of the Aksen:

- Achieve close to zero chromatic aberration.

Coaxial Lighting Option*

Projects light directly down the camera's optical axis using an internal beam splitter

- Eliminates shadow and lens reflections.
- Ideally on flat, highly reflective surfaces requiring extreme detail
 - Micro-chips
 - Circuit boards
 - Coins
 - Polished metal

**Available for 5-10x only*

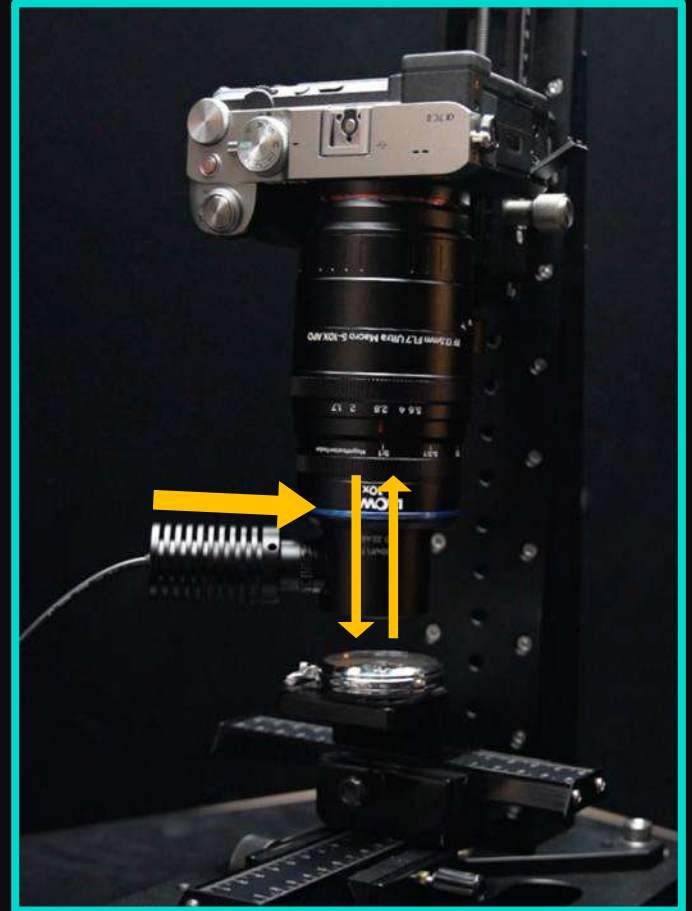


How Does it Work?

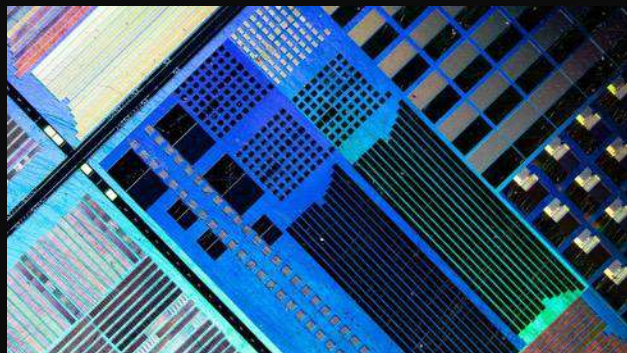
- Light in the same direction as the optical axis
- No angled light to cause reflection

Result:

- Reveal true details instead of glare for reflective surfaces
- See what's actually there (Scratches, defect, Dents & deformations, etc.)



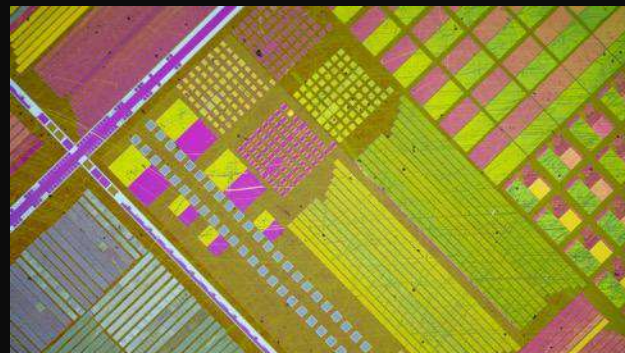
Without Coaxial Lighting



Circuit board with normal lighting



With Coaxial Lighting



Circuit board with coaxial lighting



Surface of a coin with normal lighting



Surface of coin with coaxial lighting

New type of macro photography

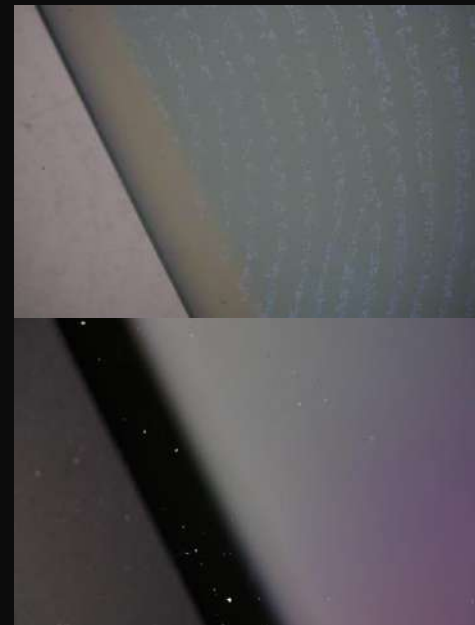
Unlocking Creative Possibilities with Versatile Lighting Setups



Coaxial light (Top) & Normal lighting (Bottom)

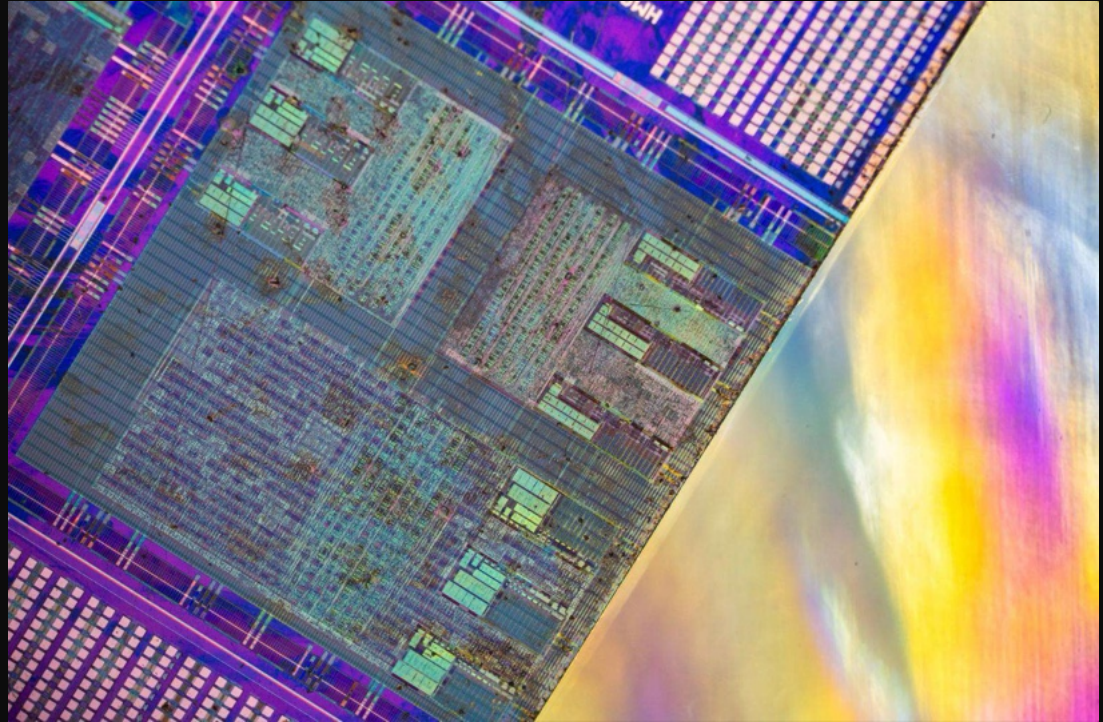
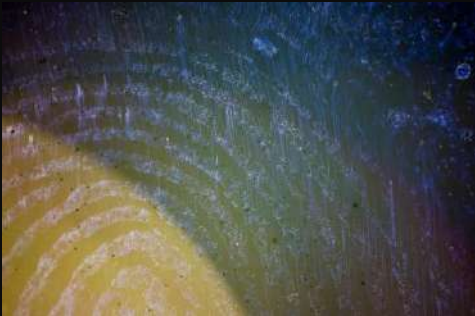


Coaxial light (Left) & Normal lighting (Right)



Coaxial light (Top) & Normal lighting (Bottom)

It brings out hidden colours and textures, giving photographers more to explore — and more room to get creative with mixed lighting techniques.



Mixing Coaxial light with polarized light

Accessories



Tripod Collar & 15mm Rods

Included with Cine Lens / Optional for Photo Lens

- **Optimal Balance:** Mounts lens directly to tripod instead of camera.
- **Detachable Rods:** Includes 15mm rods for support.
- **Accessory Support:** Ready for follow focus motors or lights.



Coaxial Light Adapter

Included with both Still & Cine Versions

- **Easy Mounting:** Screws directly onto the lens M18*0.5 port.
- **Secure Fit:** Locks the coaxial light firmly in place.
- For Ø8mm light

What Makes This Such a Special Lens?

Optical Superiority

Full Frame Coverage

- Complete coverage without vignetting.

APO Design

- Eliminate chromatic aberration (CA).
- Accurate color
- Excellence image quality

Parfocal Internal Zoom

Constant Physical Size

- Lens size unchanged when zooming.

Pin-Sharp Focus

- Stays in perfect focus for the entire zoom range.

No Need to Re-focus

- Framing and lighting position stay identical.

True Innovation

Fixed Working Distance

- 40.35mm (at 1-5x)
- 22.48mm (at 5-10x)

World First 5-10x

- First commercial 5-10x lens

Coaxial light Ready

- Easy to adapt Coaxial light

Who is it for?

Serious Macro Photographers

- Insects, arachnids, and really tiny creatures
- Pollen, plant structures
- Stones, minerals, and crystals
- Textures and abstract work

Professional / Scientific Users

- Biologists, botanists, etc.
- Specimen documentation
- Ultra-high resolution focus stacking

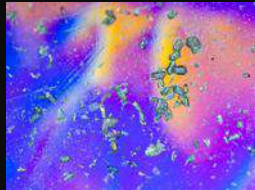
Hobbyists & Niche

- Jewellery makers, watch enthusiasts, Coin and stamp ,etc.



Setup

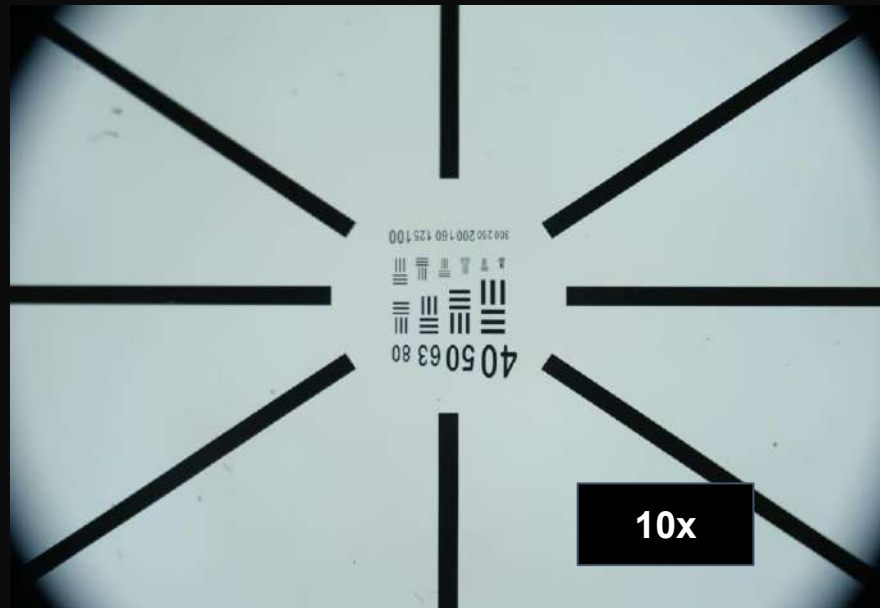
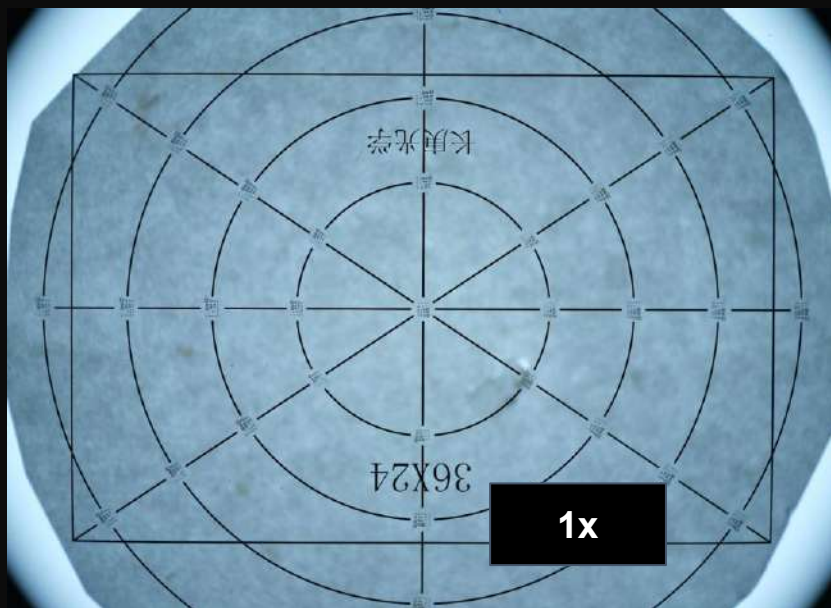
Unlike the Aurogon, the Aksen's 1–5X and 5–10X range in a remarkably compact form factor makes it surprisingly versatile across a wide range of shooting scenarios. From handheld fieldwork to a simple macro rail, or a fully motorised focus stacking rig — the Aksen adapts to every level of high-magnification photography.



Additional Info: Coverage on Medium Format

When adapting the Aksen 1–5x and 5–10x lenses to medium format cameras, users will experience varying levels of vignetting depending on the selected magnification.

(For further details demonstration, please refer to FAQ section)



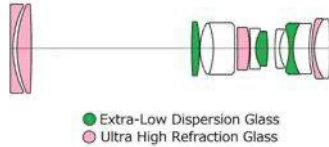
Lens Specifications

	45mm f/2.8 1-5X Ultra Macro APO	17.5mm f/1.7 5-10X Ultra Macro APO
Format Coverage	Full Frame	Full Frame
Aperture Range	f/2.8- f/11 (11 Blades)	f/1.7- f/5.6 (11 Blades)
Magnification Range	1x - 5x	5x - 10x
Working Distance	40.35 mm	22.48 mm
Optical Structure	13 elements in 9 groups	17 elements in 12 groups
Dimensions & Weight	Ø70.2x121 mm 599g (PL 639g)	Ø70.2x127.5 mm 570g (PL 609g)
Filter Thread	Rear: Ø37mm (PL only)	N/A
Available Mounts	Sony E, Nikon Z, Canon RF, L mount, Nikon F, Canon EF, Fuji X, MFT Cine: Arri PL (Silver, Interchangeable)	Sony E, Nikon Z, Canon RF, L mount, Nikon F, Canon EF, Fuji X, MFT Cine: Arri PL (Silver, Interchangeable)

Lens Construction

Aksen 45mm f/2.8 1-5X Ultra Macro APO

1-5x

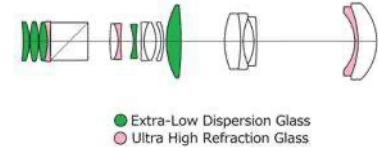


Optical Structure:

13 elements in 9 groups

Aksen 17.5mm f/1.7 5-10X Ultra Macro APO

5-10x

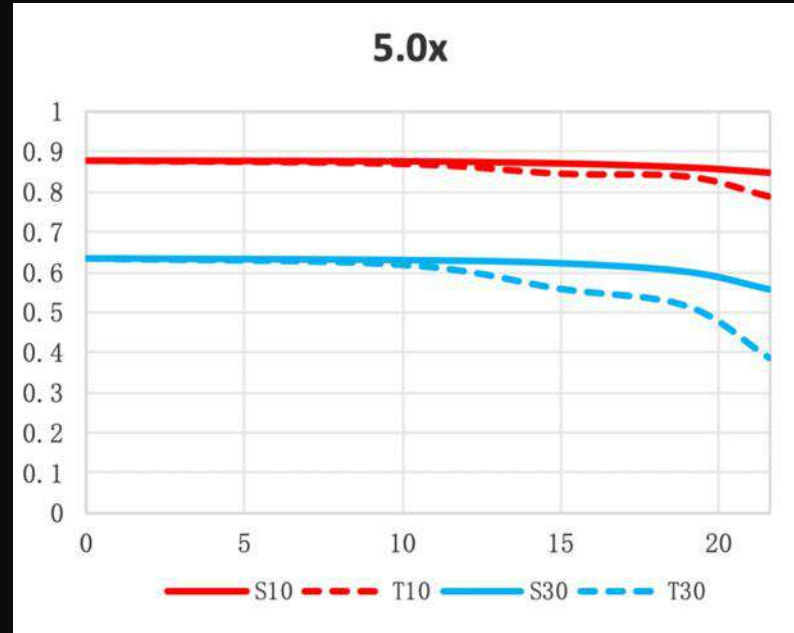
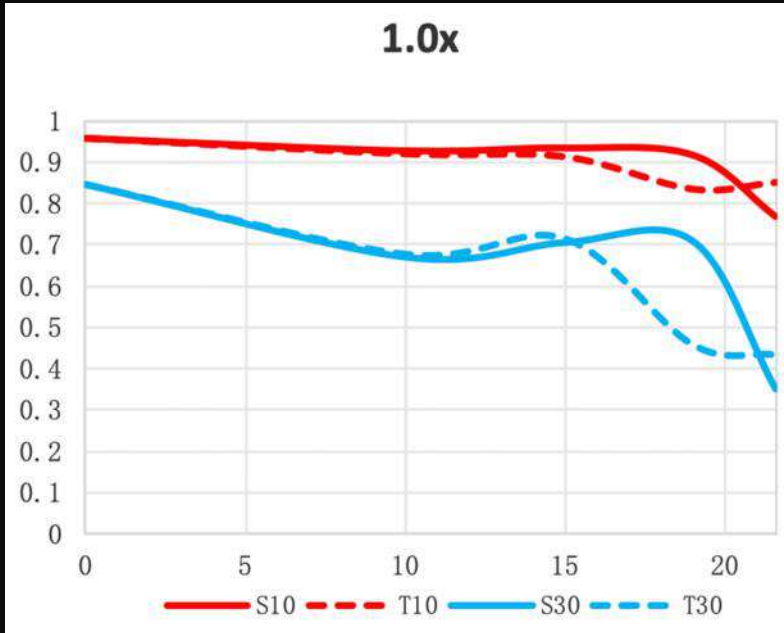


Optical Structure:

17 elements in 12 groups

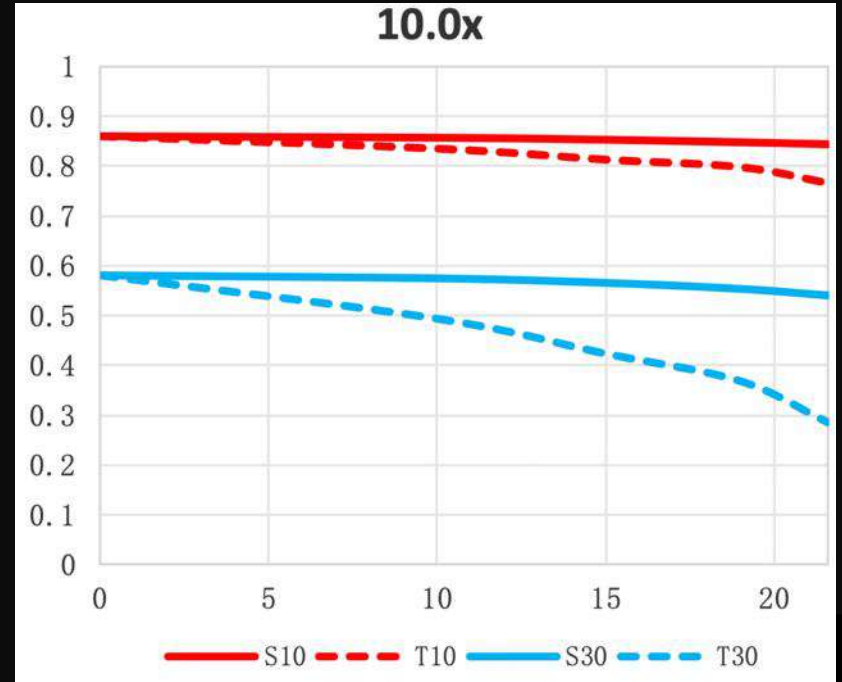
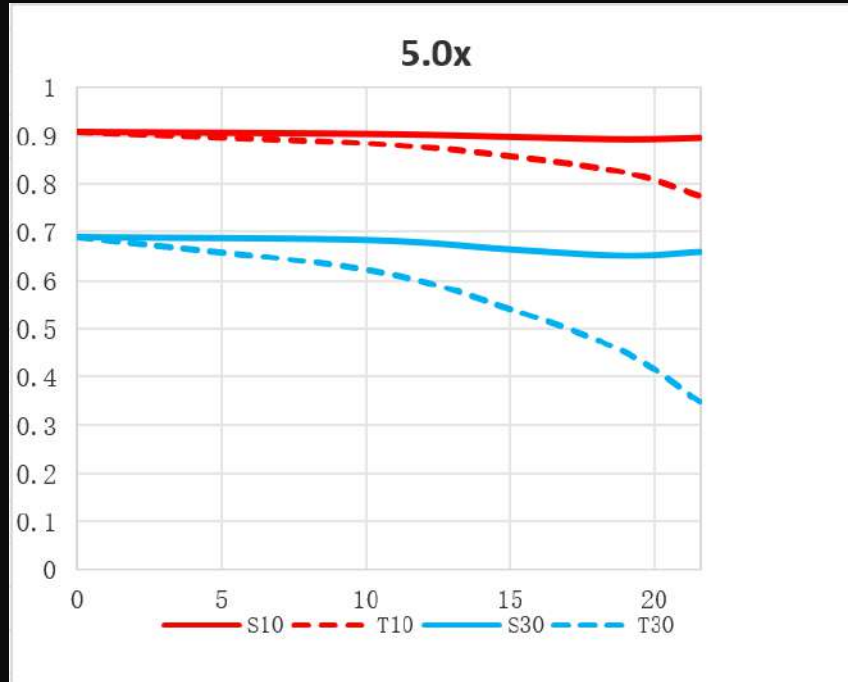
MFT Graphs

Aksen 45mm f/2.8 1-5X Ultra Macro APO



MFT Graphs

Aksen 17.5mm f/1.7 5-10X Ultra Macro APO



FAQ:

Q: Do I need a professional camera to use this lens?

A: Absolutely not necessary. Although a higher preference camera body benefits, it is not a must.

Q: How can I adjust focus? I could not locate the focus adjuster.

A: Aksen lenses have no focus ring. They focus by adjusting the distance between the lens and the subject. at fixed working distances: 40.35mm (1-5x) and 22.48mm (5-10x).

Q: What can I shoot with coaxial lighting?

A: In general, flat, reflective, and shiny objects (e.g., coins, watch mechanisms, computer chips). The possibilities are endless.

Q: Will the physical size of the lens change during zoom?

A: No, both 1-5x and 5-10x have an internal zoom mechanism. The dimension and weight distribution remain identical.

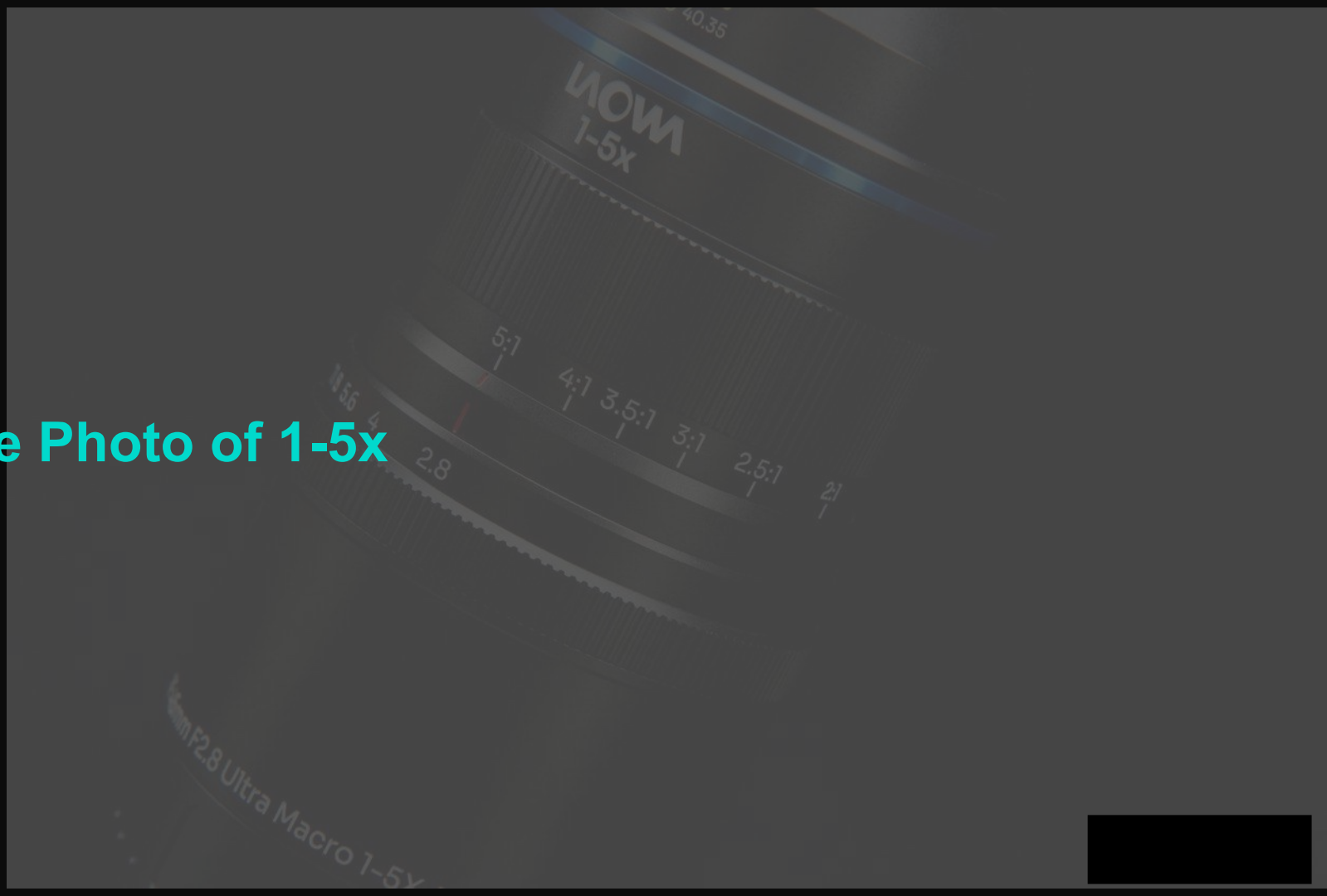
Q: Which lens is recommended for handheld, walk-around shooting?

A: The 1-5x would be the easier and more practical lens to use for this type of application.

Q: Does Aksen work with my GFX?

A: Most magnifications will exhibit minor vignetting (except 2.5X). Coverage varies between magnifications. For details, please refer to [Here](https://drive.google.com/drive/folders/1fSZHnsVgfmtxmB4pjOOAwea3AoWK98Cv)
<https://drive.google.com/drive/folders/1fSZHnsVgfmtxmB4pjOOAwea3AoWK98Cv>

Sample Photo of 1-5x



LOWE 老蛙
45MM F/2.8
ULTRA MACRO 1-5X APO
5X



©The Alley



©Victor Kouwenhoven



©Ben Small World



©Marit Van Ekelenburg



©Ben Small World



©Yui Fei



©Ben Small World

Sample Photo of 5-10x

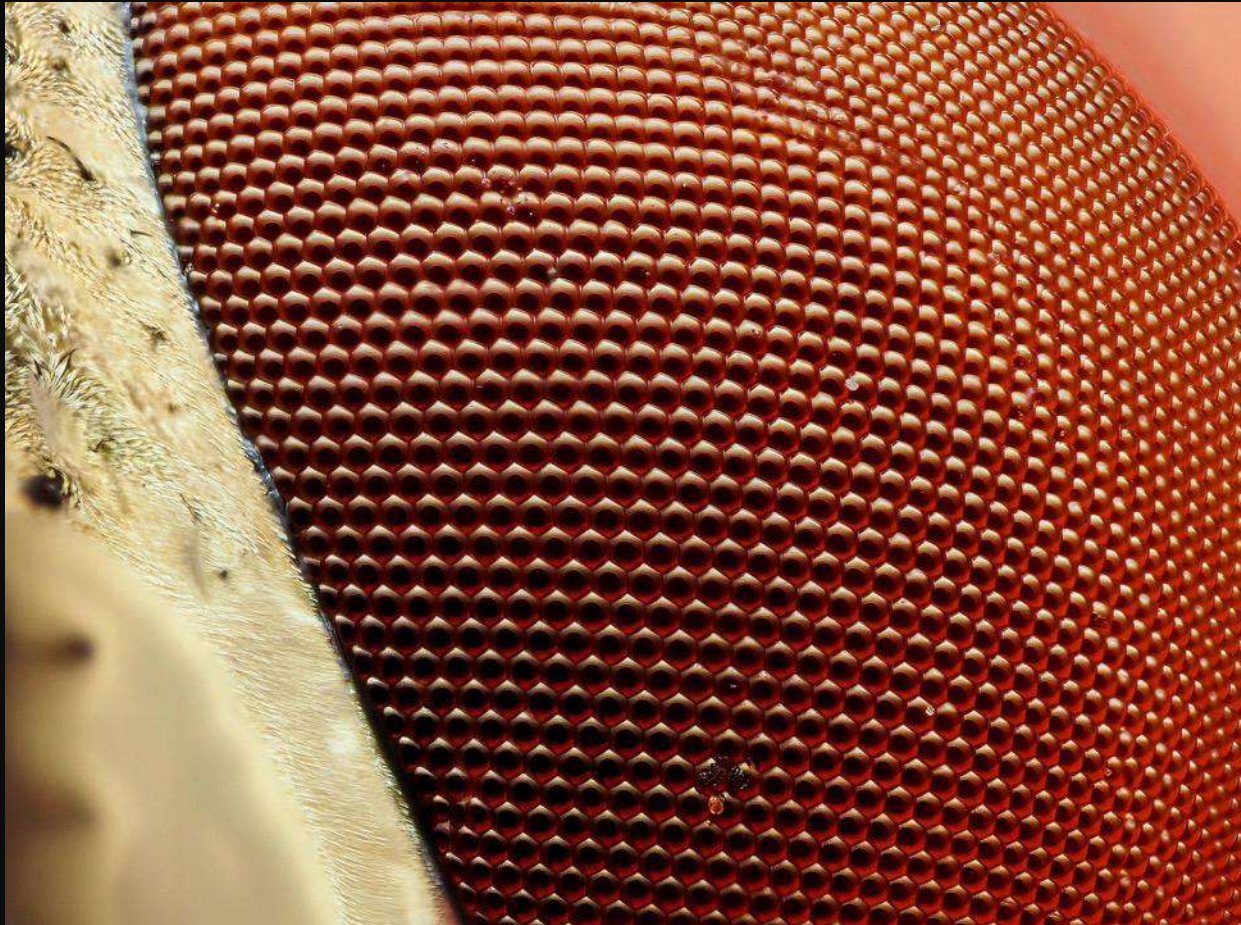




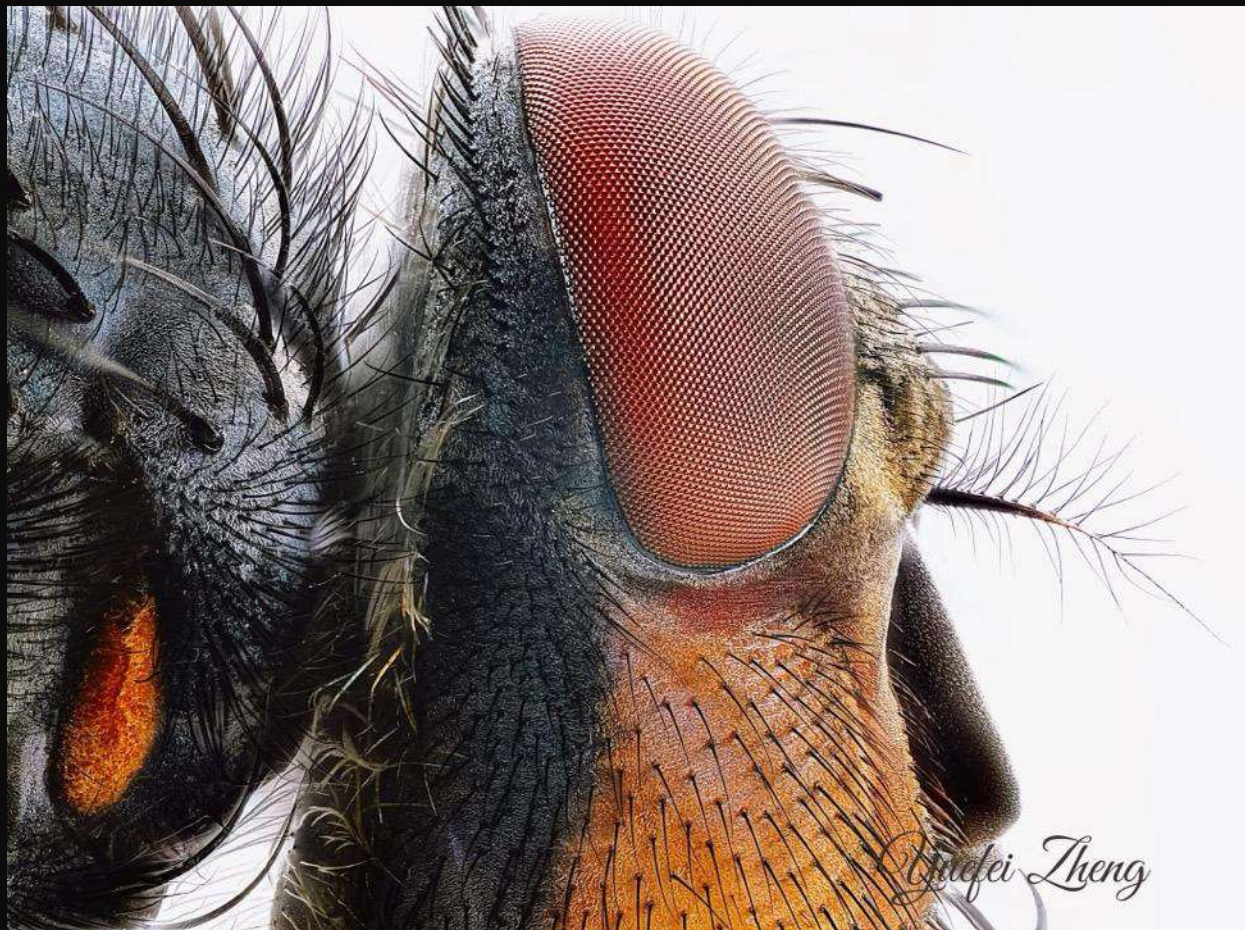
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