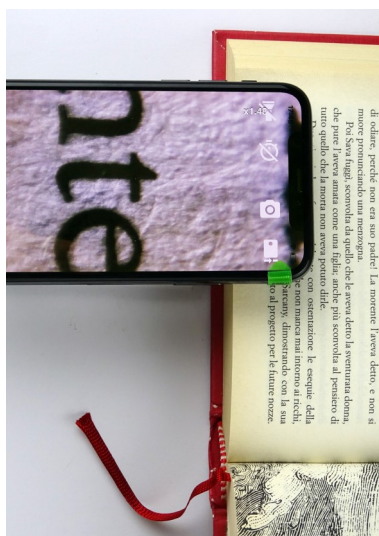




**blips**  
magnify the world

Mini-lenses for smartphone/tablet for  
Education and Science classes



**SMO**  
SMART MICRO OPTICS

## BLIPS for SCIENCE CLASSES and WORKSHOPS

Blips lenses and Blips labkits have been used in Science experiences, festivals and events specifically aimed for classes from primary up to high schools. From simple outdoor experiences to various microscopy workshops, Blips is a cheap, easy-to-use and funny solution to introduce students to the micro-world.

Among the most common experiences of biology which can be held with our kits, there is the pond water observation (with our labkits) and the direct observation of the internal parts of flowers (with macro kits), but the only limit is imagination.



## BLIPS for SCHOOLS, COLLEGES and SCIENCE EVENTS

Many Science workshops and Science classes have been held from all around the world, and a growing community of Science teachers and explainers is using our products to provide surprising and funny explorations of the micro-world.

**The pair *smartphone + microscopy* is of great appeal to students of any age.**

**Many institutions and schools have adopted Blips lenses for their science classes** in tenths of different countries. Among our customers we can find **many schools**, like Magdalen College School (UK), Canadian International School (Singapore), Ti Tree School (Australia), IIS Kennedy school (Italy), Istituto Dalla Chiesa (Italy), MYSA school (USA). Also, **many Colleges/ Universities use our kits for education and training**, like TU Delft (the Netherlands), Utah State University (USA), Gakushuin University (Japan), College of Central Florida (USA) and New York University Abu Dhabi (UAE).

The feedbacks are really positive. The team of SMO is always ready to support teachers and educators with tips and tutorials.







Blips are add-on lenses for smartphone and tablet, which amazingly **enhance the optical features of any portable device**.

With them, anyone can have a powerful macro camera or even a microscope always with you.

The **extreme portability** of the Blips lenses is the ideal solution for anyone who needs to look at the tiniest detail of the micro-world, anytime and anywhere. FOR AMAZING SCIENTIFIC EXPERIENCES AT HOME OR AT SCHOOL.

Macro Plus  
5x



Macro  
10x



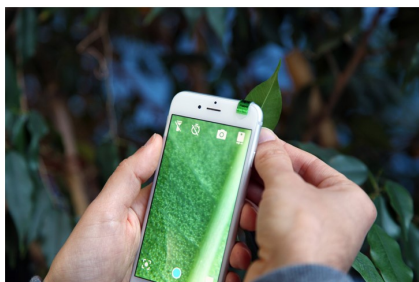
Micro  
20x



Ultra  
33x



For macro photography



For microscopy



## 2 main categories: Blips Lens Kits and Blips Labkits

**Blips lens kits:** up to 4 different lenses on flexible film, with different levels of magnification, for different purposes.

The extreme portability of this technology provides anyone with a powerful macro camera in his pocket, or even in his wallet.

**Blips Labkits:** all the 4 blips lenses, together with specifically designed components and accessories for the best exploitation of the most powerful lenses in a real experience of optical microscopy in transmitted light.

The Blips products can provide a **hi-level magnification together with an extreme ease of use**, and without expensive or bulky technology.

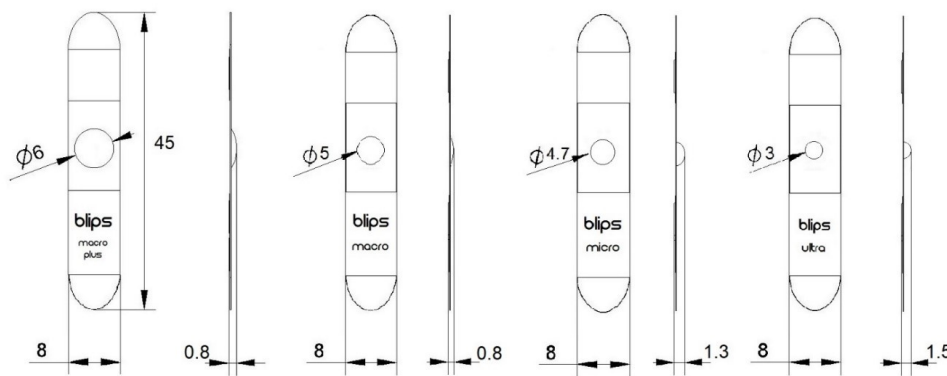
## TECHNICAL FEATURES — The Lenses

There are **four types of lenses**: Macro Plus, Macro, Micro and Ultra, with increasing magnification and shallower depth of field and field of view. The Blips lenses are designed, developed and manufactured in Italy.

The **Macro Plus** lens (5x) can be used for observing moving insects, details of plants or for quality check of manufactures, of any kind. The **Macro** lens (10x) with higher, magnification, is perfect to check in detail stationary, tiny subjects.

With the **Micro** (20x) and the **Ultra** (33x) lenses, together with our Labkits, it is possible to see micro-organisms invisible at naked eye, microscopic details of the nature, or even blood cells.

### Dimensions (mm)



### Optical features

Model	Working Distance	Magnification level (approx.)	Optical Resolution (micron)	Field of view (mm)
Macro plus	20 mm	5 X	15	20
Macro	10 mm	10 X	8	10
Micro	5.5 mm	20 X	4.7*	5
Ultra	3 mm	33 X	3.5*	3

*These optical parameters may vary when the lenses are applied on different smartphone models.*

*\*The optical resolution has been measured using the lenses on a mid-range smartphone, and with the target observed in transmitted light for Micro and Ultra lenses (on Blips Labkits).*

### Environmental stability

Storage Temperature	-10 to 50 °C
Operating Temperature	5 to 40 °C

### Materials

The Blips lenses are made of high transparent (>95% internal transmittance, for visible light) and high refractive index ( $n=1.57$ ) plastic resins. Two aluminum strips are on the flexible, supporting film for enhancing mechanical performance of the product.

*Specifications subject to change without notice.*



## PRODUCTS — for Microscopy and Macro Photography

We offer a wide range of products and lenses, suitable with **any educational need**. The macro lenses are perfect for outdoor activities, like macro photography of insects, flowers, details of rocks. They are easy to use and can be a valid substitution for elaborate optical instruments.

The labkits are instead the perfect solution for Science classes and workshops, and have been widely used in many Science festivals and events in the last years.

### Labkits

We offer a selection of prepared microscope slides plus an appropriate light source and an easy assembling stage for smartphone. Use your smartphone with the BLIPS Micro or Ultra lenses and see the smallest details in transmitted light, as with a digital microscope. The whole system is **compact and light**, easy to set up and to put back in a drawer.

Inside Blips Labkits you will find everything you need to see the microscopic details of **prepared slides** or for the exploration of the microscopic life around you. You can find **all the four Blips lenses inside** the Labkit, for microscopy and macrophotography. Make your own scientific experiments and discover lots of micro-organisms inside a drop of pot water!

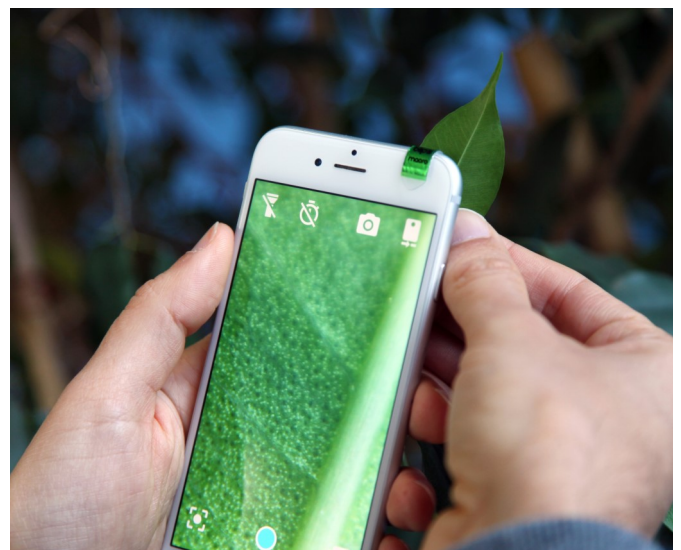
A stage for phone/tablet will help you in the fine regulation of the focal distance and for the alignment of the light source, compulsory condition for using the most powerful lenses.



### Macro Kits — The macro lenses

Blips Macro and Macro plus lenses can transform any smartphone or tablet into a macro camera, allowing it to reach up to 10x real magnifications.

This is the ideal solution for outdoor activities and nature exploration: with a standard device and a cheap lens, you can go anywhere and start exploring the micro-world. Very appreciated by **agronomists** and biologists. The Blips macro lenses are also very useful for checking the **quality details** of technical components: threaded inserts, soldered parts, electronic components.



## Blips New Labkit 2

THE BLIPS NEW LABKIT2 IS THE MOST COMPLETE SOLUTION FOR EXPLORING THE MICRO-WORLD WITH ANY SMARTPHONE

MAIN FEATURES:LENSES: **4 Lenses**, with different power: one “micro” lens-kit with the Micro lens (20x) & the Ultra lens (33x), for using the LabKit 2 as a real MICROSCOPE.

One “macro” lens-kit with the extra-thin Macro Plus lens (5x) and Macro lens (10x), to keep them always with you, for the exploration of the micro-world anytime you want.



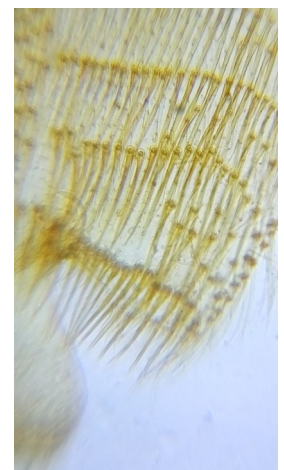
PHONE/TABLET STAGE: With screws, for fine regulation of the focal distance. Easy alignment of the light source, under the sample, thanks to the addition of a specifically designed plastic frame.

The phone support, with 3 stands, allows to use small phones, large phones or tablets. Soft rubber pads.

GLASS SLIDES: 3 prepared glass slides (1 botanical, 1 histological, 1 zoological) and 2 plain glasses for your experiments, inside a solid slide mailer case. Transparent foils usable as coverslip are inside the box.

BOX: compact, handy, box of size 15 cm x 12 cm x 6 cm

MORE: 1 pipette (4 ml), 1 light source (batteries included), 1 plastic frame for a perfect alignment of the lens with the light source—Spare, multi-usable adhesive tape included—Free App (iOS & Android compatible)



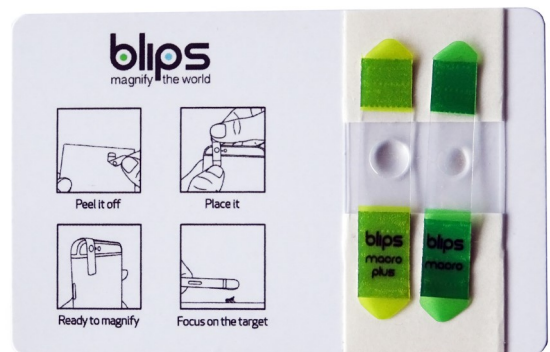


## Blips Macro Kit

Made up of Macro Plus and Macro Blips lenses, this kit is the ideal solution for macro photography lovers!

**Macro Plus Lens:** with focal distance of 20 mm and great ease of use, this lens is the ideal solution for users who want to start exploring the world of macro photography. Insects, flowers, details of everyday objects, even your eye will appear in a completely new way!

**Macro Lens:** with a magnification of 10x and focal distance of around 10 mm, this lens allows you to capture amazing details of the microworld!



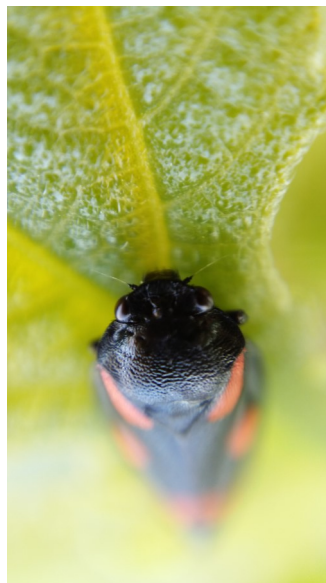
The pack contains:

- 1 Macro lens

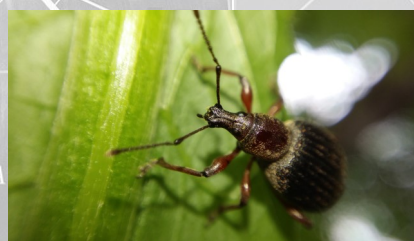
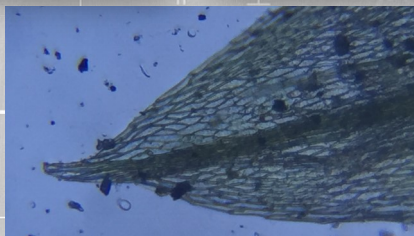
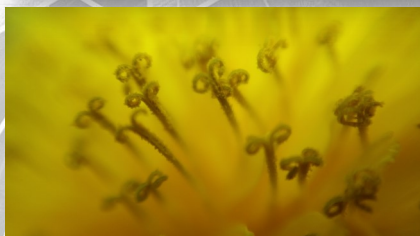
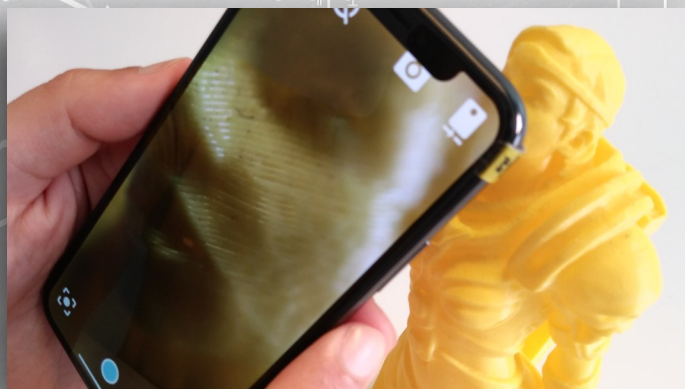
- 1 Macro Plus lens

- Free App (iOS & Android)

- Spare, multi-usable adhesive tape included







In SmartMicroOptics we believe in the crucial role of the scientific education in society. Microscopes are a kind of tool for making Science loved by kids and students in general, because they open a window in an amazing world around us, invisible to the naked eye. We are happy to offer special deals to institutions/organizations that want to try our products for educational purposes. Massive discounts for large orders of our standard kits or for recurrent supplying of lenses, or repeated orders, can be openly discussed. SmartMicroOptics is a spin-off company of the Istituto Italiano di Tecnologia.



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