

Micro Phone Lens User's Guide Version 1.2

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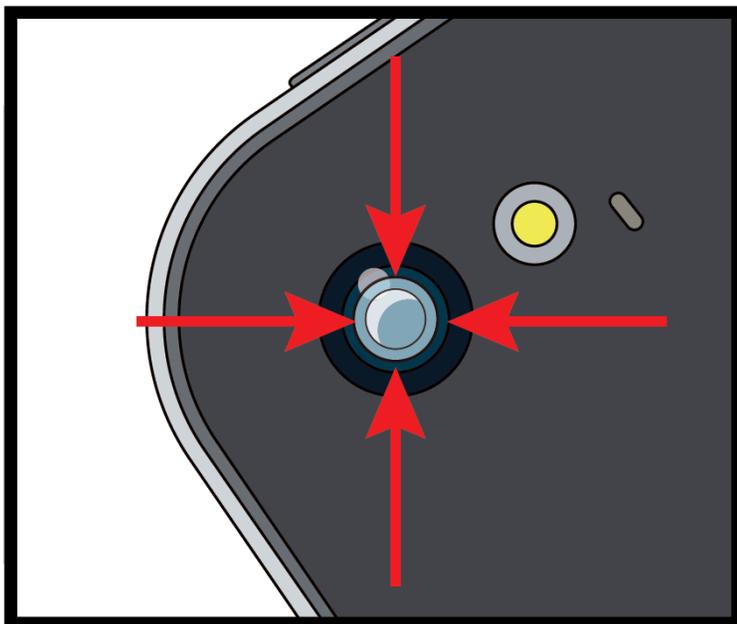
User's Guide-

Stick On-

Before sticking on the lens, make sure it is relatively dust free. A quick wipe of the finger is usually enough.

Place the lens directly over your cell phone's camera. Adjust if necessary to center the lens. Once centered, give the lens a gentle press around the rim to ensure that it is fully adhered.

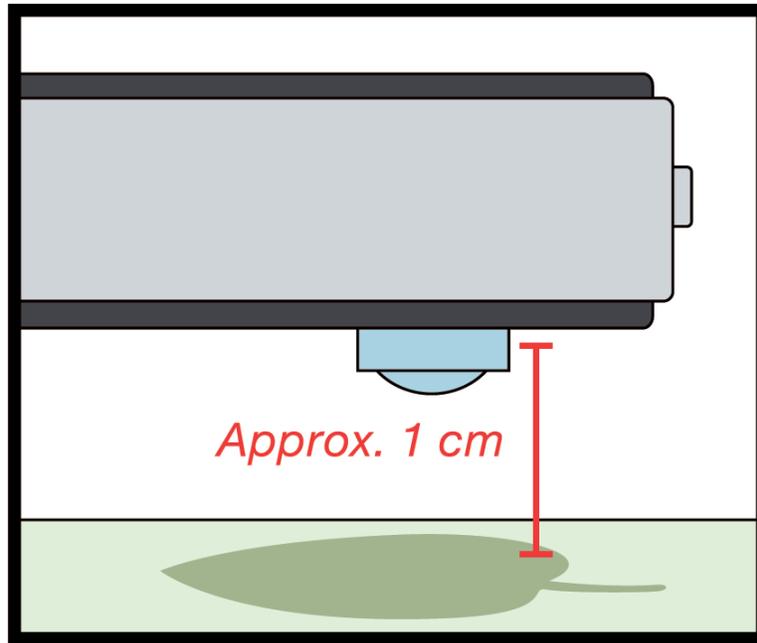
It's easier to stick on the lens when your phone is on a table or other flat surface.



Having your lens centered will ensure a crisp image

Focus-

Next, slowly bring your phone close to your subject. The picture will be in focus when your phone is about ½ inch (or about 1 cm) away from the subject. The lens has a shallow depth of field, meaning you need to hold your phone steady when taking a picture



If your phone is too close, or too far away, your image will be blurry!

Capture-

Now you're ready to take your picture! Remember to hold your phone steady; using two hands really helps to capture a good image. As with photography in general, don't be afraid to take a few pictures to get the one you want.

Advanced Tips-

Holdin' Steady-

Perhaps the most challenging part of using the Micro Phone Lens is holding your phone steady to keep your subject in focus. At higher levels of magnification, lenses lose what is called depth of field - the margin of error between being in and out of focus. The Micro Phone Lens occupies a middle ground between a point-and-shoot camera and a bench microscope requiring delicate focusing knobs.

Thankfully, there are a few tricks to holding your phone steady and taking a good picture. Most importantly, whenever possible use two hands to take a picture. If you're looking at something that you're holding in one hand, try to keep your hands together to reduce movement:



Left - bad technique, Right - good technique

Resting your arms against a table, tree, or other large object is another way to get a great image. Sometimes you'll want to look at something that isn't easy to get near - for example the ants in the intro video. In those situations try to minimize movement by keeping your elbows close to your body or resting on your legs.

Seems like a lot of work? Well, provided you have a table or other flat surface, there is an easy way to keep your phone *very* steady. The plastic carrying case is the perfect height to rest your phone on when imaging:



Try resting your phone on the case, and gently adjust it to get your image perfect

Lighting-

Lighting is important whenever you take pictures, and using the Micro Phone Lens is no different. The lens typically works well in ambient light, but you may want to use it in low light settings. An easy way to let more light under your phone is to tilt your phone at a slight angle (see above picture).

However, if your image is still dim, many phones have a mode that allows you to use your flash as a light when taking pictures. You can also explore the camera options on your phone and adjust settings such as brightness. LED flashlights provide another way to improve your lighting.

For reference, all of the images shown on the Kickstarter page were taken using default settings and ambient lighting.

Cleaning-

After you have used your lens a couple times, you may notice some dust or dirt on the surface. Unfortunately, the stickiness that allows the lens to stick to your phone also causes other things to stick to the lens.

Normally a little dust or dirt on the lens doesn't impact image quality. However, in larger amounts it can make your image blurry or the lens less sticky. A quick wipe with clean fingers is usually enough to clean the lens off.

If your lens is very dirty, or if you would like to make it exceptionally clean, simply rinse the lens with a little dish soap and water. Repeated washings do not negatively impact the stickiness of the lens. Be careful not to wash it down the sink, though, the lens is very slippery when wet!

When washing with water I recommend a 4-finger "cage" to contain your lens:



Keep the lens secure to prevent it from washing away

Alternatively, a bowl or even the plastic carrying case makes a good basin for washing the lens.

Technical Details-

Lens Focal Length	¼ inch (about 6 mm)
Lens Diameter	¼ inch (about 6 mm)
Base Magnification	15x zoom
Minimum Camera Resolution Required	5 Megapixels

Acknowledgements-

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-Thomas