

At the last workshop Peter Max and others talked about a small hand held/lighter eye loupe. Peter stated that Bill Kuhn has one and it works great.

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## A Little Handheld Device Called: Mini Illuminated Microscope

By Shou-Lin Lee



In a recent trip to the Pasadena City College monthly swap meet (PCC swap meet) a little magnifying device caught my attention. The manufacturer called the little device “Mini Illuminated Microscope.” On the box it listed that the microscope has a 45x power, with two LED lights for lighting. It uses three LR927 batteries, which were included. It also comes with a carrying pouch.

The whole thing measures less than two inches, fitting in my palm nicely (see picture). I used the device to look at my finger tip and was impressed to see that tiny beads of sweat were clearly visible. Because it was so cute and because it cost less than ten dollars, I decided to give it a try.

The tube to the left is the magnifier. The tube to the right is the illuminator which holds three batteries and has two LED lights at the end to illuminate the object under observation. The diameter of the lens is about 8 millimeter. Although the manufacturer claimed that the device is 45x power, I found that the number to be exaggerated. By comparing the images under a 10x power loupe, under a 20x power loupe and under a stereo microscope with 40x magnification, I found that the magnified image observed under the device is closest to that under a 20x power loupe. However, because this device has a light to illuminate the object and the lens has a smaller diameter than the 20x power loupe I have, this mini microscope is actually easier to use than the 20x power loupe.

<http://www.amazon.com/SE-Mini-45X-Microscope-Illuminator/dp/B002E0MU70>

Herb Gold produced a 10x loupe that also had built in illumination and was very well constructed.



### **Celestron Mini Handheld 10X Illuminated Loupe**

- The **Celestron Mini Handheld 10X Illuminated Loupe** is perfect for hobbies, such as coins, stamps, gemstones and more.
- Ten times the magnifying power and illumination allows you to study circuit boards, electronics, and even simple things like removing a splinter with ease.
- The **Celestron Mini Handheld 10X Illuminated Magnifier** employs a 21 mm (0.8") diameter multi-coated glass triplet lens.
- Measures 2.0" x 1.2" x 0.9" (51 mm x 30 mm x 23 mm) and weighs only 2 ounces

<http://www.optcorp.com/product.aspx?pid=14439>