


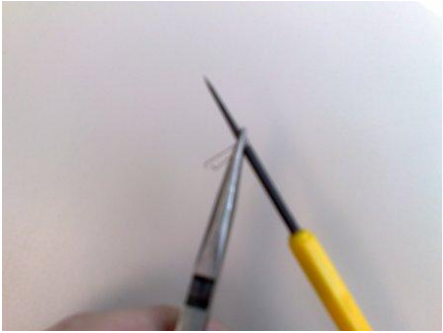

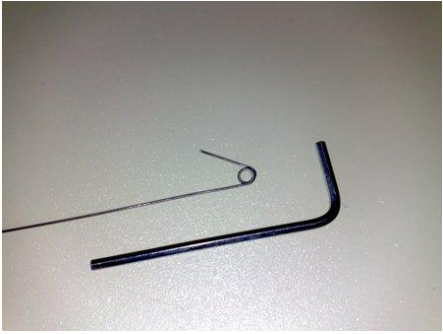



How to make a diffraction grating kit for a mobile phone imaging device

Required tools & materials :

- 4 3 1/2 floppy disks or a piece of piano wire, 1 slide frame, 1 old mouse pad, 1 diffraction grating.
- Cyanoacrylate glue, adhesive tape, cutter, thin nose pliers.

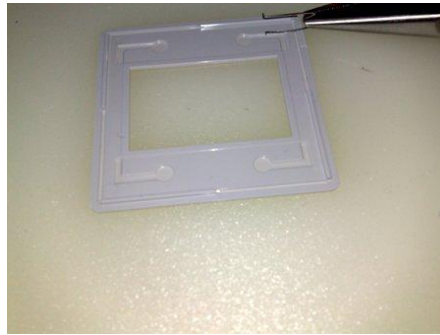
Manufacturing steps :

<p>1 - Unclip the metallic shield from the floppy to access and remove the small metal spring.</p> 	<p>2 - Take care not to lose it ! Repeat the same operation with the 3 remaining floppy disks.</p> 	<p>3 - We are now going to reshape them.</p> 
<p>4 - Using the thin nose plier, pull the two branches of the spring towards each other (the yellow bracket serves only to facilitate the shooting).</p> 	<p>5 - The four springs shall be reshaped identically.</p> 	
<p>6 - If you do not have floppy disks, use piano wire instead (less easy). Give it the form of a floppy disk spring (3 laps).</p>  		

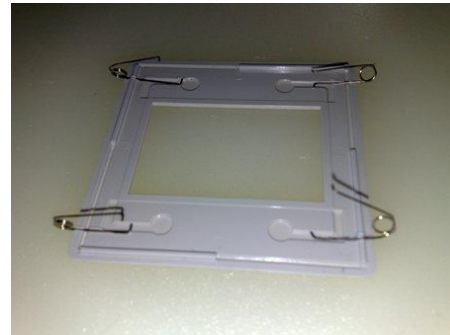
7 - Using a candle heat to red a spring..



8 - Quickly apply it on the slide frame.



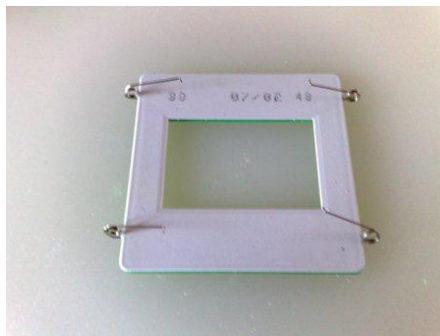
9 - Repeat the operation for remaining springs.



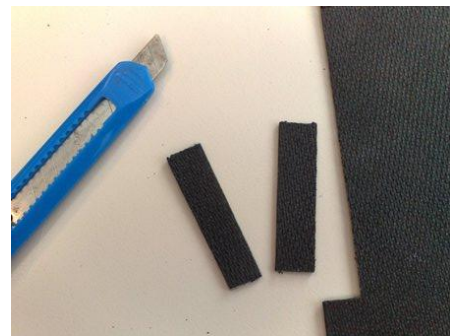
10 - Put some glue on the welds and at each corner of the slide frame.



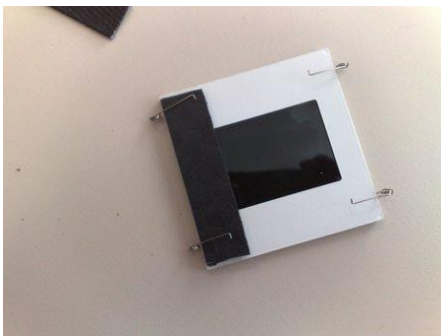
11 - Adjust the second half of the slide frame and press firmly few seconds.



12 - In the mouse pad, make 4 runners by cutting 4 strips of a size slightly smaller than the edge of the frame slide.



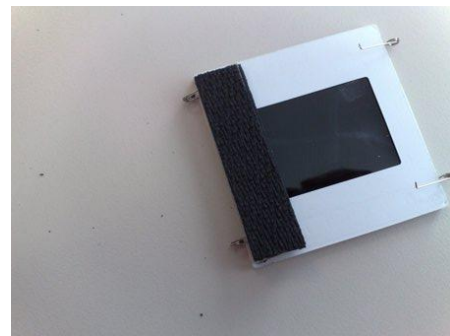
13 - Insert one of the runners between the slide frame and branches of the springs, nonslip side toward the slide frame.



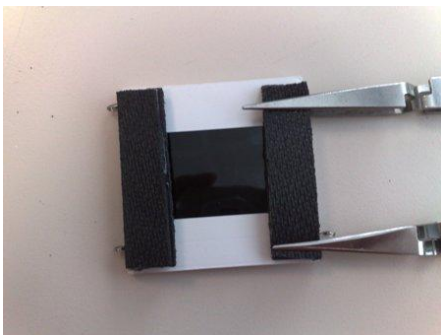
14 - Apply some glue on the runner.



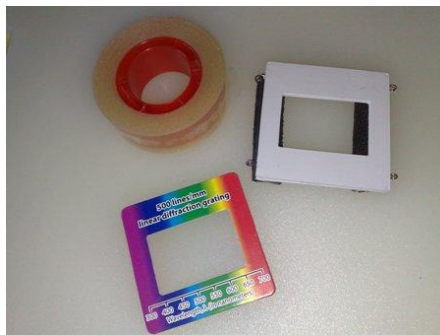
15 - Adjust another runner on it, nonslip side upward. Maintain the gluing with pliers. Repeat the operation on the other side.



16 - Let it dry.



17 - Cut 2 small pieces of adhesive tape.



18 - Apply the diffracting grating on the slide face opposite to runners.



Done !



NB : Take care before taking a picture to disable the flash if it is available on your mobile phone. Check whether you have a manual mode allowing turning off the flash.