

Paper Tube Camera Obscura

You will need:

- 1 Paper towel tube
- 1 toilet paper tube
- Black paper
- Tracing paper/ muffin wrapper
- Tape
- Small Magnifying lens

Step 1: Check that your smaller tube will fit inside the paper towel tube easily. If it does not fit cut along one side of the tube and roll it tighter to fit inside the larger tube. Tape along the edge of the cut.

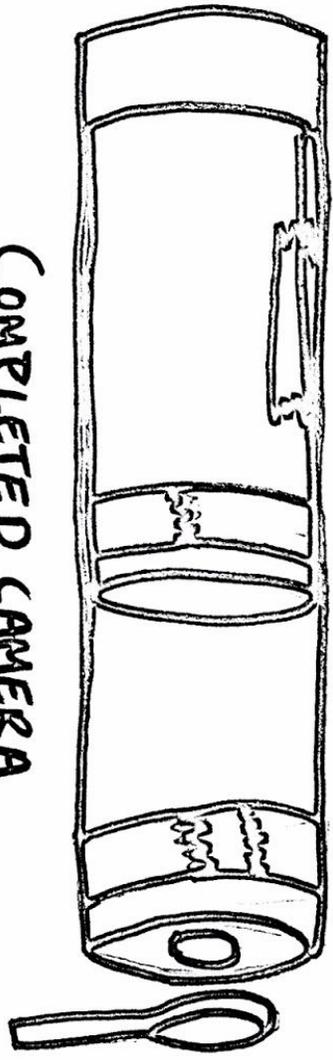
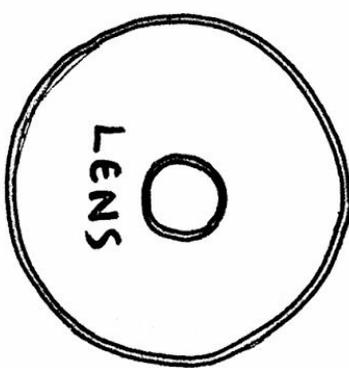
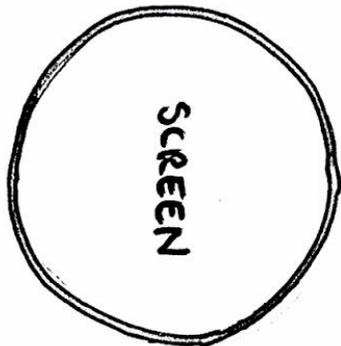
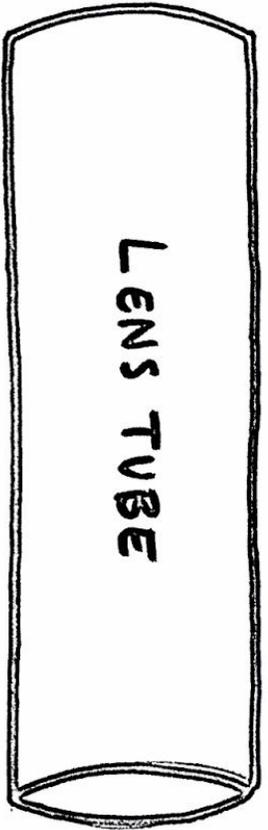
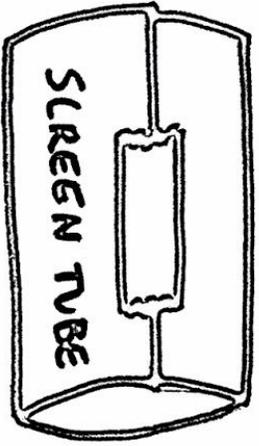
Step 2: Create a circle of black paper that will cover the end of your large tube with a small hole in the center. This is the lens, tape in place over the end of the tube.

Step 3: Create a circle of tracing paper that will cover the end of your smaller tube. This is the viewing screen, tape in place over the end of the smaller tube. A great substitute for tracing paper is a white muffin wrapper, fit it over the end of the tube and tape in place.

Step 4: Secure the magnifying lens over the hole in the center of the black paper on the lens tube with tape or other adhesive.

Step 5: Slide the viewing tube into the larger lens tube and adjust the focus of your Camera by moving it forward or back within the tube.

You should now see an upside down projection of whatever you point your camera at! This Camera Obscura works best in bright places, Try different magnifying lenses for different degrees of focus, remember that sliding the inner tube forward or back can create a sharper image as well. If you have a digital or film camera of your own you can take a picture of the screen inside your camera. Have fun exploring light and image with your new Camera Obscura!



COMPLETED CAMERA