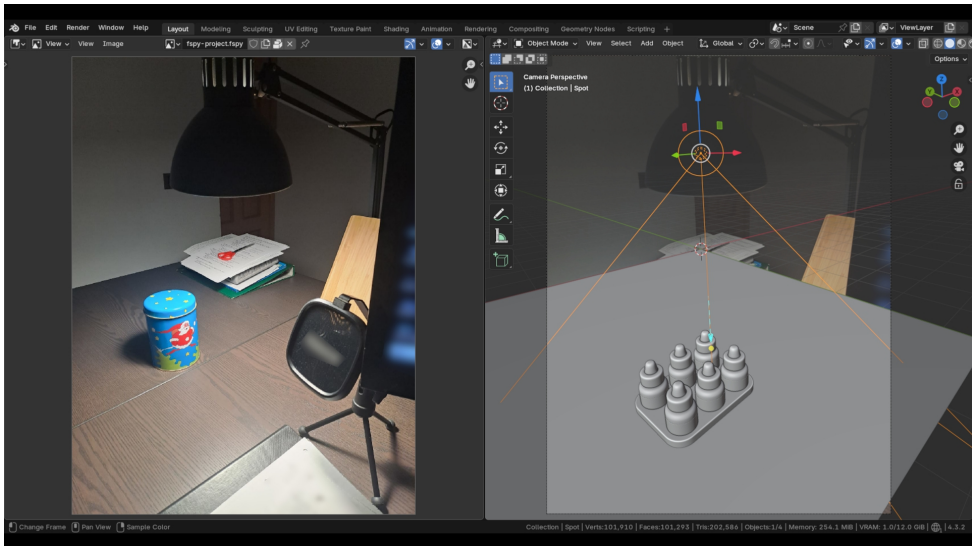


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Hello everyone! In this tutorial, we'll see how I set up the initial scene for the Shadow Catcher tutorial, which I'll publish next week.

In that tutorial, we'll learn how to insert a 3D model into a photograph by recreating the shadows to be cast onto the original photo, as well as how to process the Shadow Catcher information separately in Compositing.

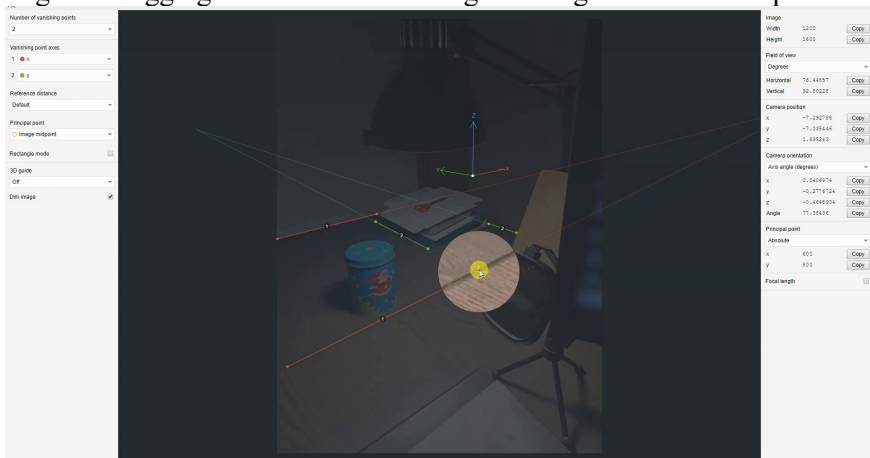
In this tutorial, however, we'll focus on setting up the rest of the scene in preparation for the upcoming tutorial.

As with many of my other video tutorials, the PDF version of this tutorial is available for free download at the link in the description. This is also a great time to subscribe to the channel and enable notifications so you won't miss the next video tutorials!

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To recreate the orientation of the real camera in Blender, making it easier to position objects within the scene, I'll use the fSpy program along with its Blender add-on. I've already dedicated a tutorial to both, previously published on my channel, but I'll cover the key concepts again here.

I'll start with fSpy, where I need to load the original photograph and place the segments to identify the vanishing point or vanishing points in the image. I'll adjust the two pairs of segments on the photo, using the SHIFT key while clicking and dragging to zoom in on the original image as I move the points.



Finally, I'll set the Origin of the virtual environment, positioning it approximately where one of the table's corners is located. This way, new objects will be inserted into the scene at that point, as if they were placed on the table's surface.

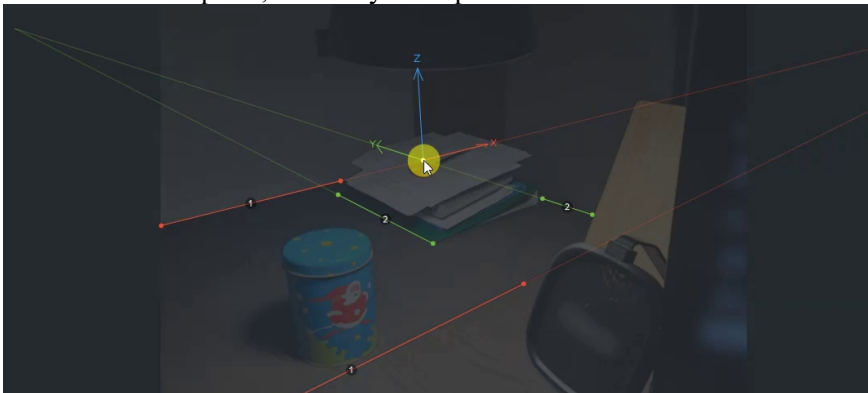
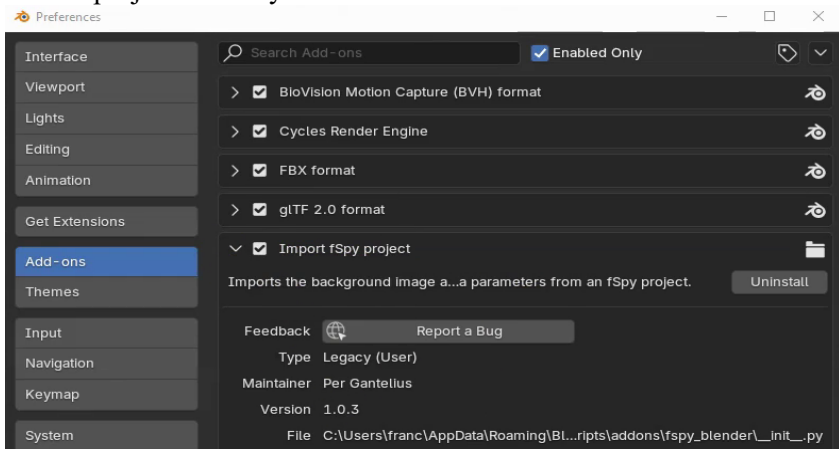


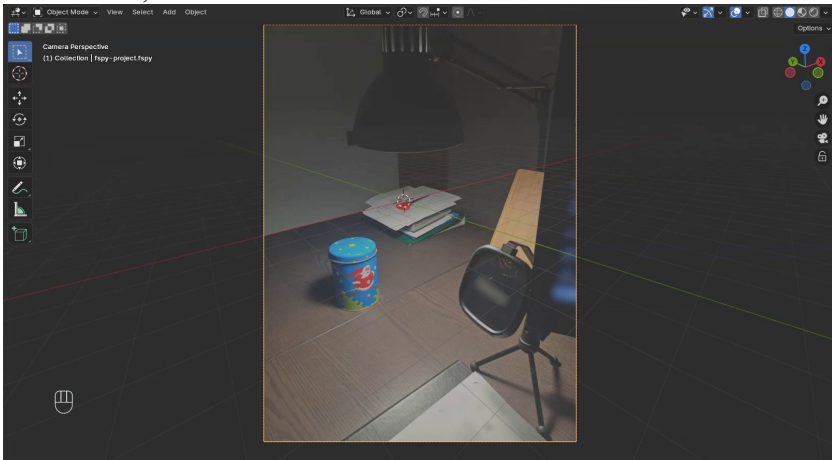
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Once the scene setup in fSpy is complete, I save this project as an fSpy file on my drive and switch to Blender.

I have already installed and enabled the fSpy add-on for Blender, allowing me to import these projects directly into Blender.



I then import the fSpy file into an empty Blender scene, resulting in a virtual camera configured with the same framing as the original photograph. The photograph also serves as the background for the virtual camera to help us position elements, but it won't be rendered.

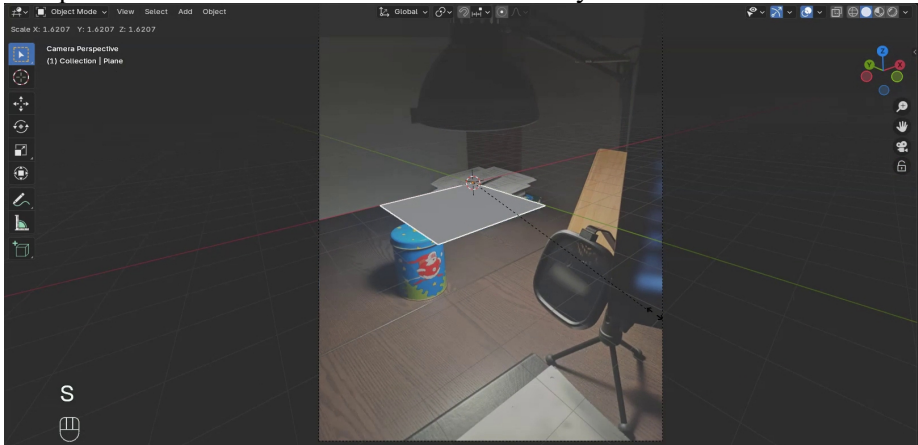


First, I add a Plane that will serve as the tabletop surface for rendering. In a new project, the Plane is inserted by default with its Origin centered at the middle of the virtual environment. To resize it more easily, I first move it so that its farthest

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vertex aligns with the origin of the virtual environment.

Once that's done, I apply the Location transformation to move the Plane's Origin to that point. Now I can resize the Plane more easily.



When I took the photograph, I placed a cylindrical jar on the table to have a reference for the shadow projection. So, I insert a cylinder, moving it upward to reposition its Origin at the bottom base. I reposition the Origin of this object using Apply Location, just as I did with the Plane. This way, the cylinder will remain grounded on the reference Plane when I move and resize it.

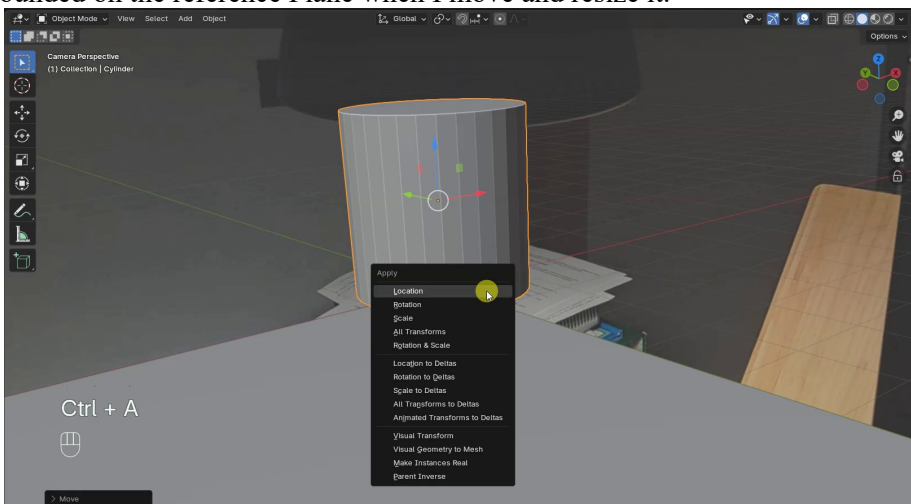
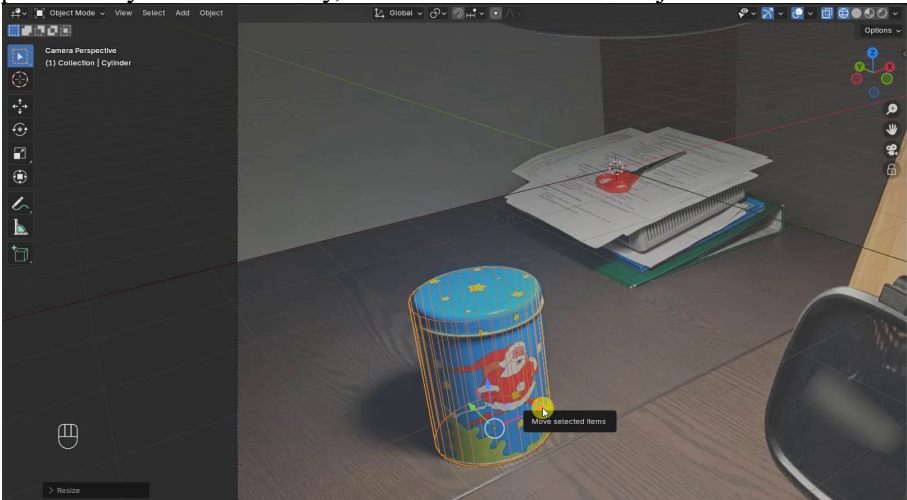


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I then move the cylinder onto the Plane, positioning it where the jar is located in the original photograph. In Wireframe view mode, I use Blender's XY grid lines to place the cylinder accurately, then resize it to match the jar's dimensions.



Now I add a light source of the Spot Light type, trying to position it approximately where the light bulb is located in the original photograph. Again, I can use Blender's XY grid lines as a reference to position this object.

To adjust the Spot Light's settings to replicate the shadows present in the original image, I first disable the background lighting in the World tab, allowing me to focus solely on the Spot Light's illumination in Rendered mode.

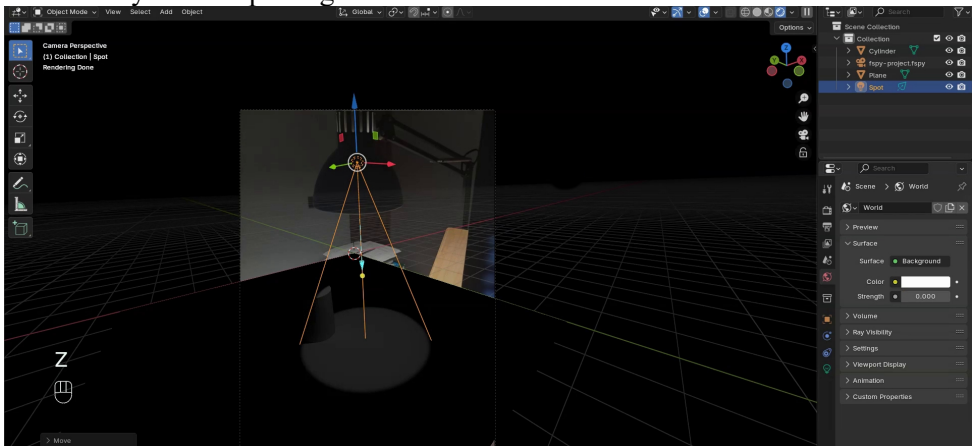
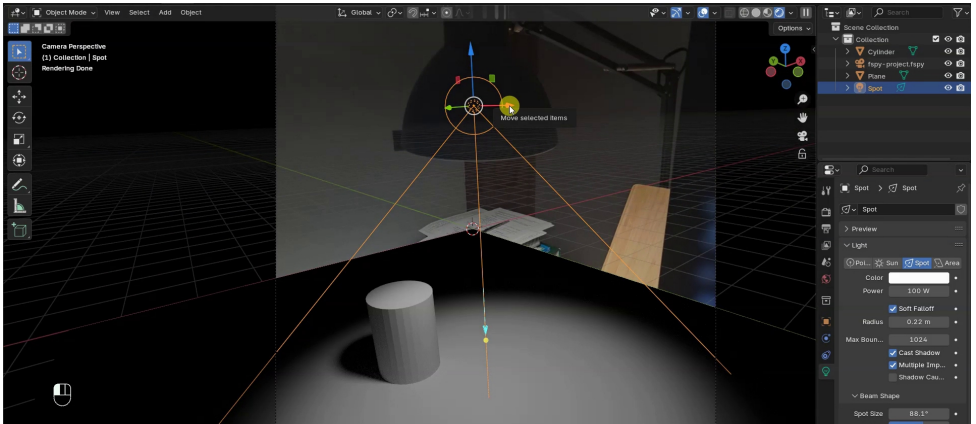


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What follows is a small process of trial and error, where I adjust various properties of the light source, such as its radius, cone angle, intensity, and position. Specifically, by increasing the light source's radius, we can simulate the size of the bulb, which will produce softer shadows because the light source is not a distant point in space but rather a hemispherical shape very close to the table. I'll switch back and forth between Rendered and Wireframe view modes to compare the shadows cast by the cylinder and the jar until I achieve a satisfactory result.



At the end of this process, I slightly increase the World lighting value to simulate the indirect lighting present in the real scene. In this case, I don't think it's necessary to use an HDRi image, so I'll simply use pure white as the background lighting color. However, I can adjust this value after inserting the object into the scene to achieve a more realistic result.

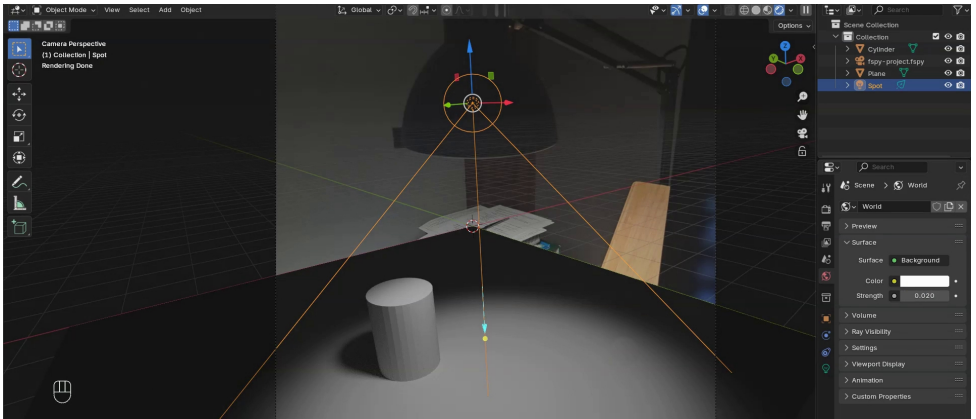
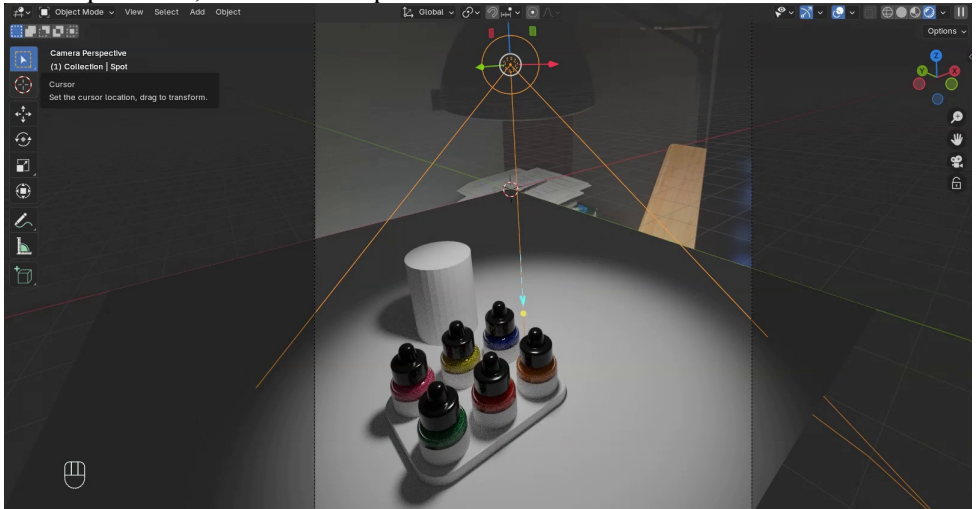


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At this point, all that's left is to import the object or objects we want to place in the photograph. Once again, it's helpful to reposition the object's Origin to its base, making it easier to position and transform while keeping it on the Plane. For these operations, Blender's Snap tools can also be useful if needed.



Now that the object is placed in the scene, we can delete the reference cylinder and temporarily hide the Plane to adjust the background and light source values if necessary.

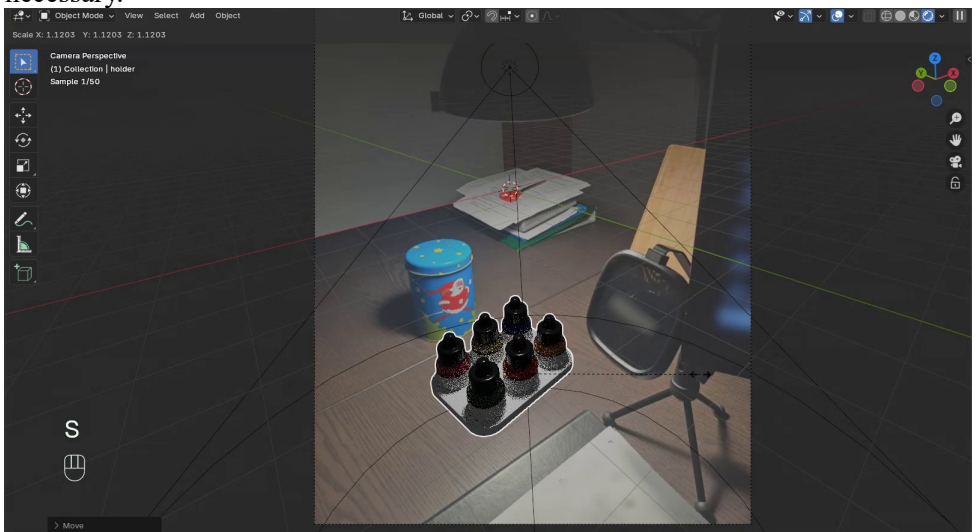


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Okay, let's make the Plane visible again, and that's it for this tutorial! In the tutorial I'll publish next week, we'll see how to use the Shadow Catcher to complete the integration of this object into the original photograph. See you soon!

