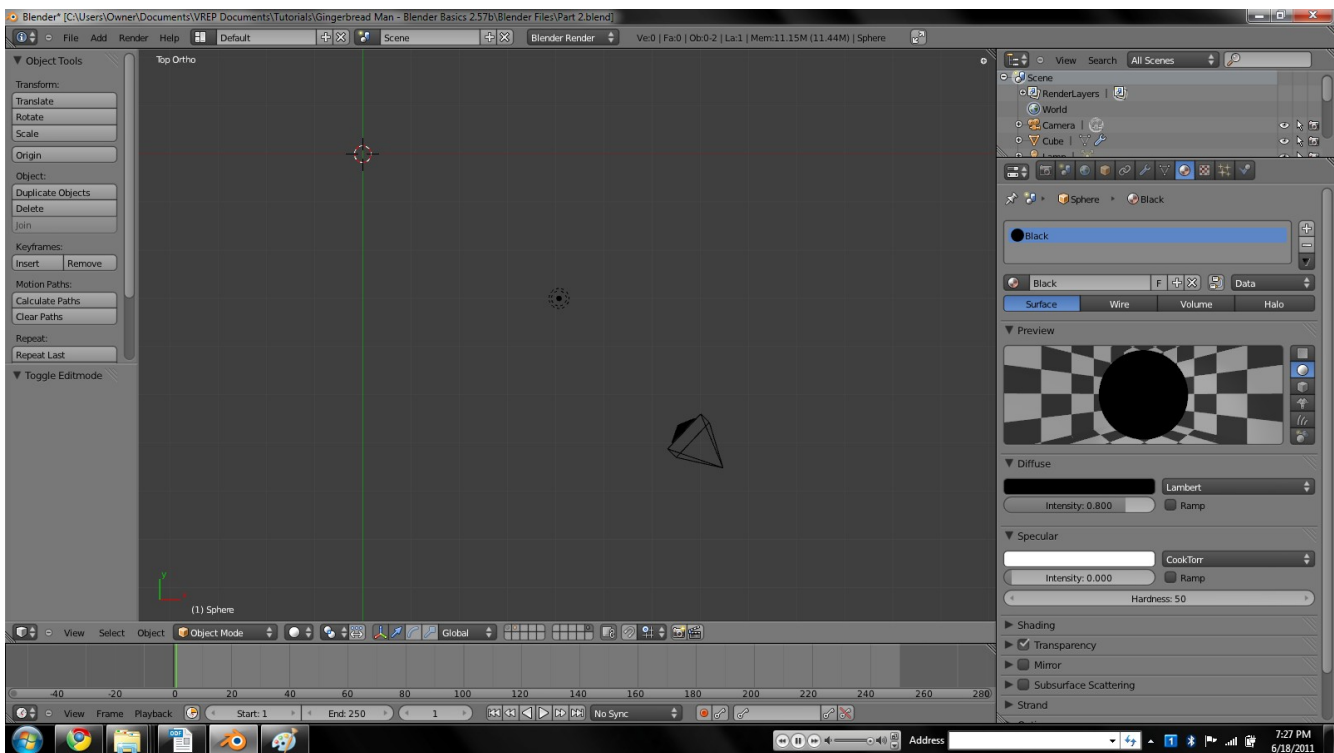


Your First Blender Project – Part 3: Rendering VREP (Virtual Reality Educational Pathfinders) Blender 2.57b

You're almost finished with your gingerbread man. There are only a couple more things that we are going to do before you get to see him in 3D on the screen. One very important step in getting to where you can put it on your computer is setting up a stereo rig and adding lights to your scene. You will cover the basics with the stereo rig and scene setup, along with your rendering options.

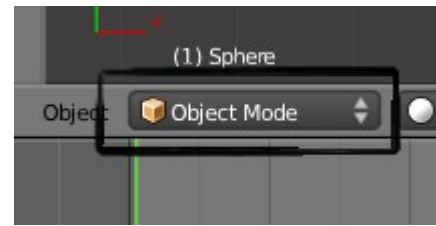
Before you begin this part of the tutorial you should have some experience navigating Blender, and you have completed and saved your projects from Parts 1 and 2.

- To start off you should be in the top view. (NUM-7 or you can go to view and select top view.) You are going to want to start off in the layer that has your lamp, and camera. (This should be the top box, farthest to the right.) You should end up with a 3D view that looks like the below picture. ***DON'T MOVE ON IF YOUR VIEW HAS ANYTHING MORE**

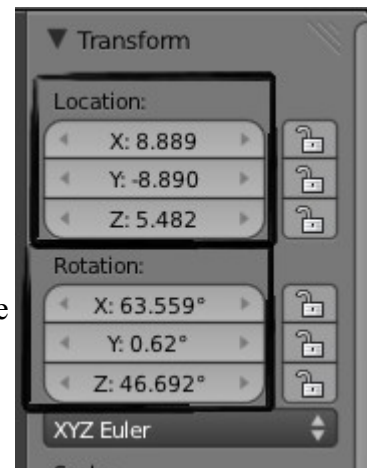


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- The first thing that we want to do is select everything (A) and delete it (X). Then press (SHIFT + C) to center your cursor. You should now have a blank screen. Next you are going to need to add a cube. (SPACE) (-Then you need to type “Add Cube” in the search box) Now for a quick and easy hint: go ahead and move your view into wire frame. (You can do this by pressing Z, or you can find your “Viewpoint Shading” menu.) Now add in a camera. (SPACE) (-Then you need to type “Add Camera” in the search box) You should move the camera to the right a little bit. To do this you are going to want to open the “Transform Properties” by pressing (N) with your cursor in the 3D view point. You need to set the Loc X to .333. Okay, now you need to add in another camera and move it to the left. You'll go through the same process only now you need to set the Loc X to -.333.

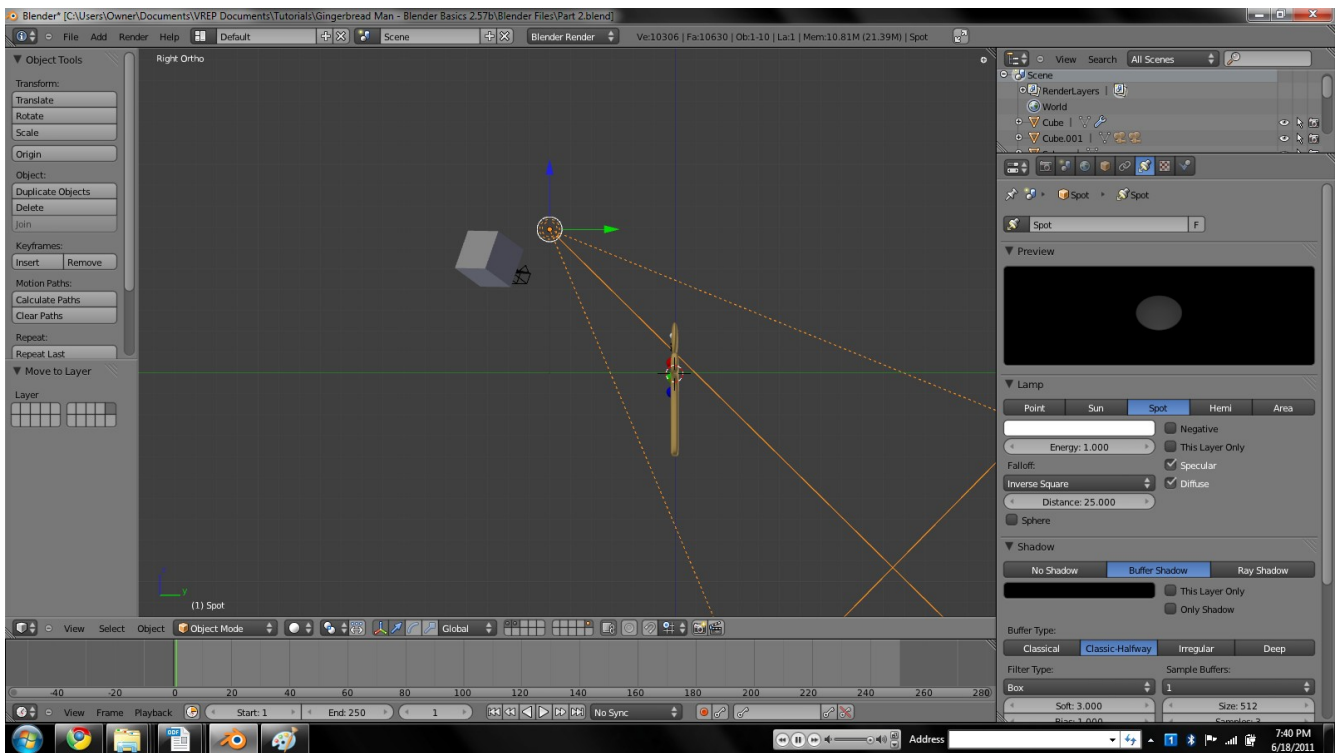


- The only problem is the cameras are inside the cube. What you need to do is turn to the front view. (NUM-1, or go to view and select front.) Then grab the cube and move it on the z-axis 1.0. (Select the cube and press G then Z, and type in 1.0 and press ENTER)
- Now we need to set it up so when you move the cube you can move both cameras with it at the same time. To do this you need to select one camera and while holding (SHIFT) select the cube. (The order in which you select the objects is important.) Then all you have to do is “Parent” the two objects. (All you need to do once you have the camera and cube selected is hit CTRL + P and press make parent.) You should now be able to move the camera with the cube when you grab the cube. Do the same thing for the other camera. In the end you should be able to grab the cube and the cameras will follow.
- Now, to make things go a little quicker, I'm going to give you the settings for your camera position. Select the cube and copy over the same transform properties that I have in the photo to the right. (You can move the camera around your 3D space just by grabbing the cube, but this will just make things move a little faster.)



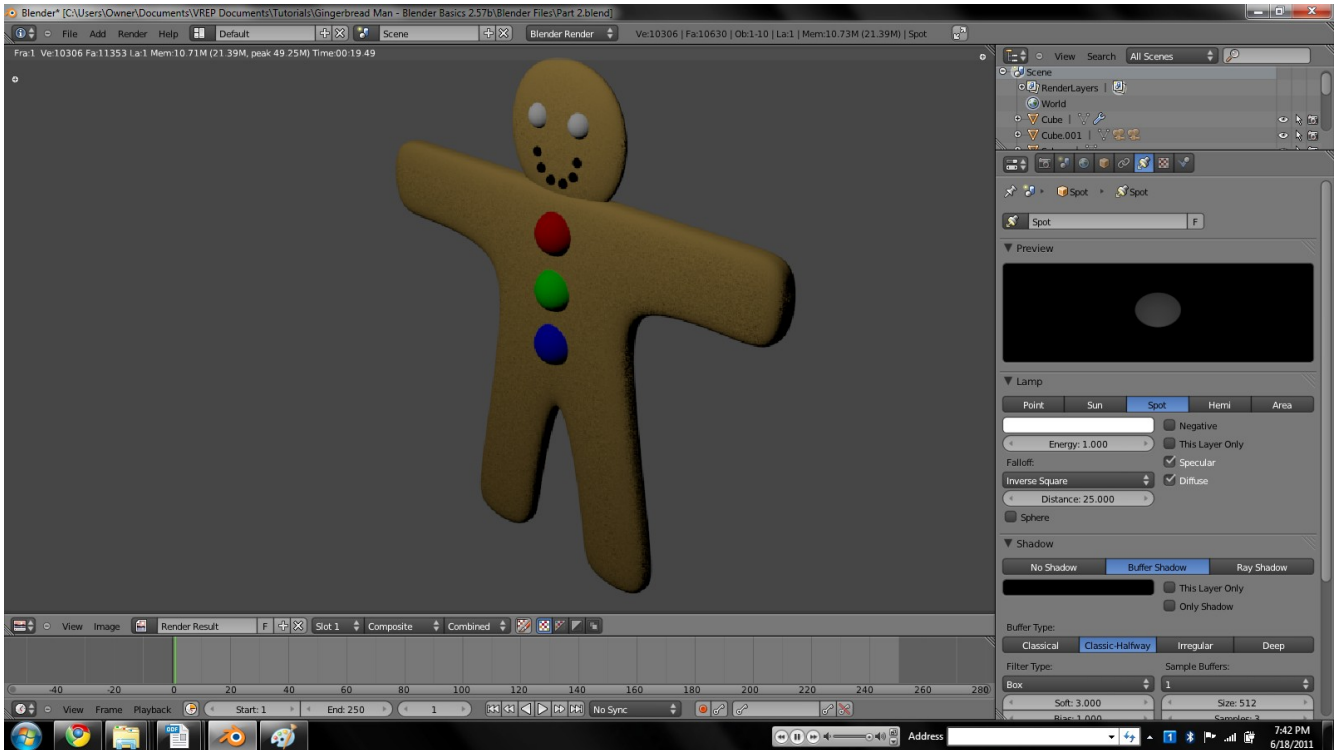
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- Before we start our next step go ahead and select the layers that you have your gingerbread man and your camera. (To select multiple layers you will need to hold **SHIFT**.) Now it's time to shed some light on your project. There are several different types of light that you can use, but the one that we are going to set up is a spotlight. To do this, use **(SPACE)** (-Then you need to type “Add Lamp” in the search box, then select spot). You should grab the spotlight and move it above the gingerbread man. The distance isn't very important, just don't get too crazy with your numbers. After the spotlight is above him go ahead and move to the side view. Move the light in front of him a little ways. Again distance doesn't matter, just don't get too crazy. Now for the last step, rotate the light so the dashed line is hitting the gingerbread man in the stomach. (Click **R** to rotate. You won't need to worry about an axis because you are in a side view.) You should end up with something that looks a little like this:



- You have endured a long and confusing process within Blender, but it's now finally time for you to actually see what you have in a render. Rendering is kind of like taking a photo. When you want to make a movie you will be rendering multiple images, and blender will compile them all into a file, usually this will be a .avi. You will also need to know that you'll have to render both cameras in Blender in order to set up stereo later on. Go ahead and press **(F12)**. This will bring up a new window that will render the image that you currently have. It should look something like this.

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- It's always nice to finally see what you have been working on within Blender. You can do this anytime that you want. The only thing that you need to keep in mind is that you'll always need a camera, and a lamp of some type. It's not just good enough to have them in your project, but the camera has to be pointed at what you want to render, and the light has to be directed at the object as well.