

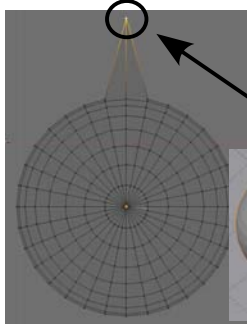
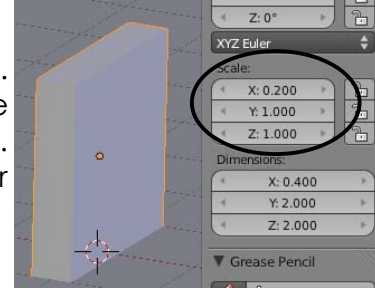
## Chapter 21- Game Engine Basics

### Using Logic Blocks

We have talked about using the physics for animation, but now it's time to look at using Blender for *Real-Time* animation like an architectural walk-through and yes, games.

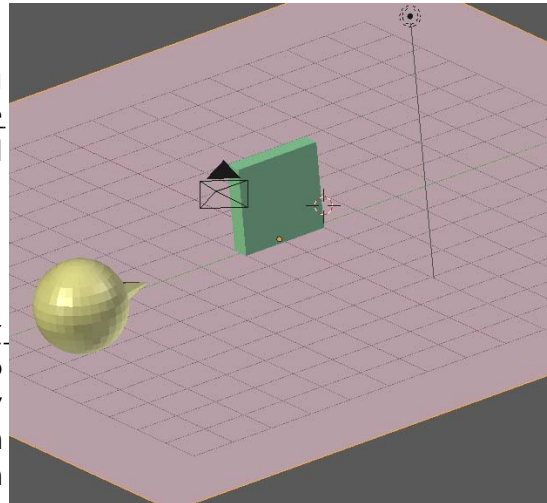
#### Scene Set Up:

Start a new scene and make a Cube resting on a plane. Using the “N” key to open the *Transform* bar, change the scale X of the Cube to 0.200. We'll use this as a wall block. For the Plane, scale the X and Y to 10.000. This will be our floor.



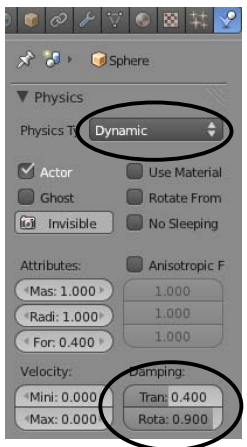
Now add a UV Sphere, enter *Edit Mode* and select a single vertex from the top view as shown. Use the “G” key to pull it out from the sphere. This will indicate the forward direction when we turn this into an actor and move it around with the arrow keys. Make sure that it is above and not touching the plane. This could cause it not to work when we turn it into an actor.

We now have a basic scene to work with. Add a Material to each object and change the Diffuse color for each so they stand out. You should have something like this scene.



#### Setting the Actor:

It's now time to turn the Sphere into a *Dynamic Actor*. Start by setting the Engine from Blender Renderer to Blender Game (page 21-1). Go to the Physics panel and select “Dynamic” for they type. To keep the actor from sliding or spinning too much in the game, we'll set Translation



Dampening up to 0.400 and Rotational Dampening up to 0.900. You may need to experiment with these later, but these settings should be good. If these settings are too low, you will notice that your actor “coasts” a lot after you take your finger off the key. This is also controllable in the materials settings with friction.

We shouldn't need to change the radius size since we didn't scale the sphere, but if you did, adjust the radius size to match, then hit “Ctrl-A” to reset scale and rotation settings.

It's now time to switch to the “Game Logic” screen layout so we can add some controllers.

