Course Name: Virtual Reality Technology Lab

Course Number and Section: **16:332:571:01**

Experiment: Lab 2 – Intro to Blender

Lab Instructor: Mingju Liu

Date Performed: 3/4/21

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REQUIREMENTS

For the lab, I had to use Blender to create a scene of a room using models that I created from scratch. The room needed at least two walls, at least one window, and at least 10 distinct pieces of furniture. Everything must have a material/texture. For the graduate requirements, I needed at least 3 non armature-controlled animations and one basic armature-controlled animation. I got all of my textures, materials, and meshes from Blender and BlenderKit. All animations were timed to happen every 96s. I created a 1970's theme room.

1. **The Chair**

I created the chair seat from the table I made in the tutorial as well as adding 4 separate cube meshes that I scaled to make rectangular wooden posts for the back of the chair. I textured the back and the legs of the chair with material Wood.003. The seat of the chair is a fabric called Fabric 01. This is one of my distinct furniture pieces.

2. **The Book**

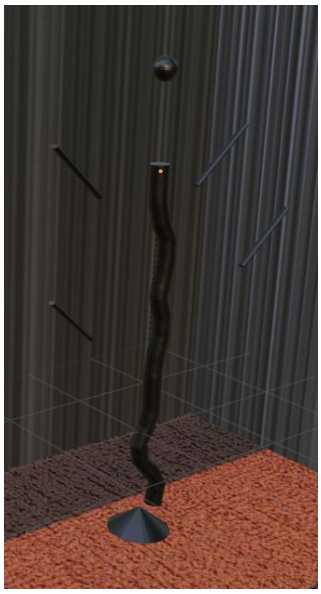
I created the book from a cube mesh that I scaled to make it rectangular. I used a Paper old material on the top surface of the cube to make the paper in the book. I used a Brown Cracked Leather material on the other faces of the cube to make the book binder/cover. My other books' bindings were created with materials such as Purple wall painting, pewdiepie pattern, Blue wave, and Green Leaf 01. This is one of my distinct furniture pieces.

3. **The Clock**

I created the clock frame from a toroid mesh that I scaled down and used a Brushed Gold with Imperfections material on it. The clock face is a circle mesh filled Ngon that is the same size as the inside of the toroid. The vertex in the clock is an even smaller circle mesh with material Metal04 PBR. The two clock hands are scaled down rectangular planes of the same material. This is one of my distinct furniture pieces.

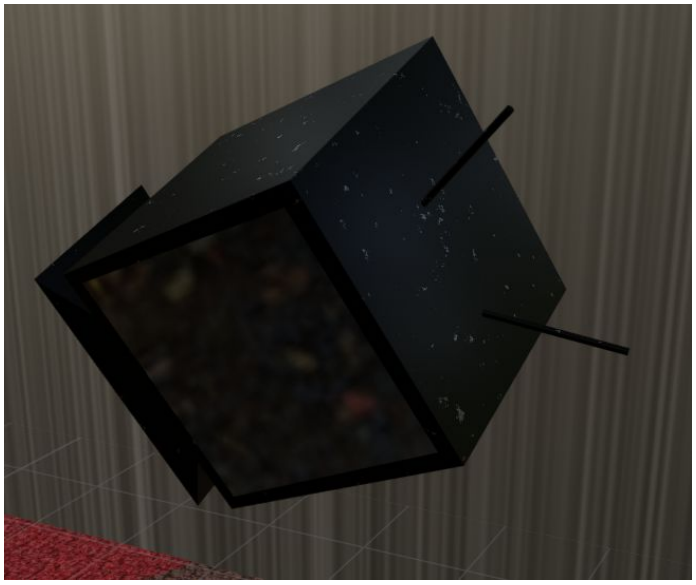
4. **The Coat rack**

I stood vertical a scaled down cylinder with armature inside and a “steel dark used” material to create the main coat rack body. The other smaller cylinders are inserted diagonally from the main cylinder to make the coat rack arms. They use the same material. The base of the coat rack is a scaled down cone with the same material. The main body is inserted into the cone base. The scaled down sphere at the top is for decoration. It uses the same steel material. This is one of my distinct furniture pieces. I used armature animation to make the main coat rack cylinder get wavy like a snake and move away from its base for about 40s before going back to its static position at 96s. Each arm of the coat rack also flies away in a diagonal direction and return to position in those times frames, making another non-armature controlled animation. The sphere at the top of the coat rack translates up before returning to position which is another non-armature controlled animation.



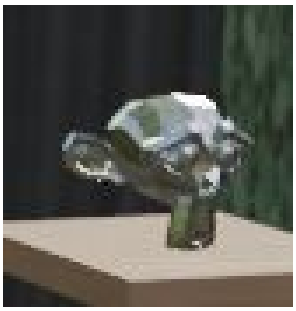
5. **The TV**

I created the TV body from a large cube mesh with material “stee”. I inserted a face into the front face of the cube mesh and then extruded it inwards slightly to create the TV screen. It has a material Black-Cristallo. The two cylinders, which are a part of the main object and have the same material properties as the body, were inserted diagonally into the top of the TV to create the antennas. There is a cone base at the bottom of the TV in the same “stee” that was sculpted down so that the top is flat. The TV is inserted into it. This is one of my distinct furniture pieces. This has non-armature controlled animation as the entire TV hovers above the ground and swings back and forth before returning to its original position within a timeframe of 96s.



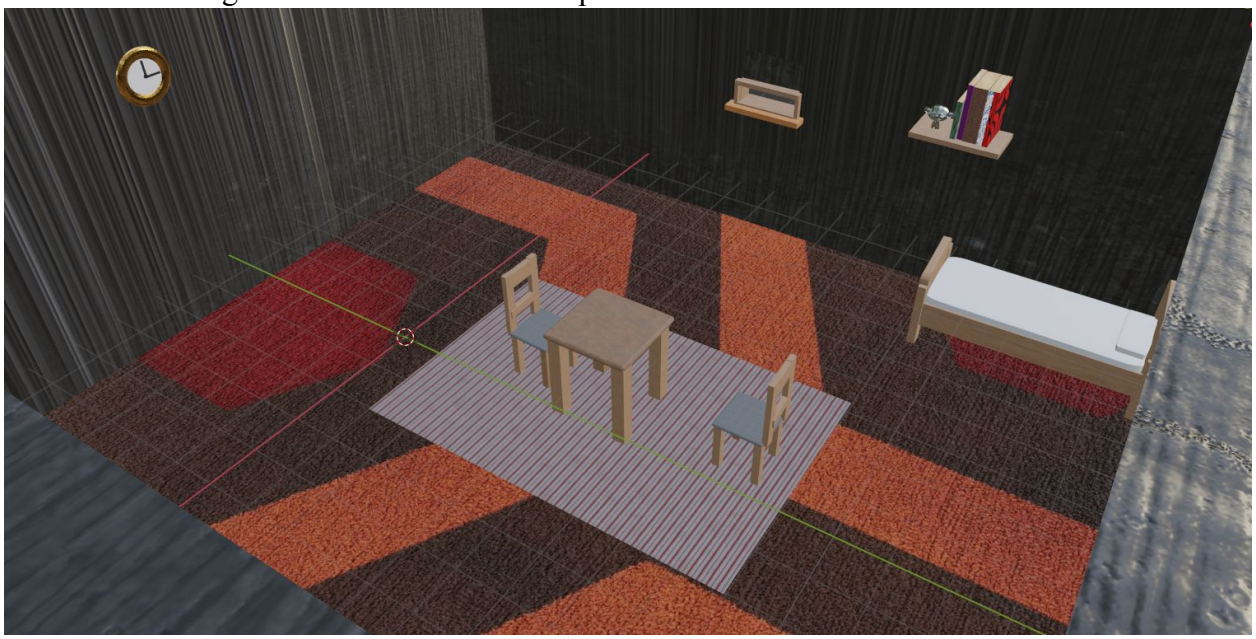
6. **The Monkey Statue**

I created the Monkey Statue on the bookcase from a monkey mesh that I scaled down and textured Metal04 PBR. This is one of my distinct furniture pieces. This has non-armature controlled animation as the monkey does a 360 degree flip in the air before returning to its original position within a timeframe of 96s.



7. **The Room**

I created the room using a cube mesh that I enlarged to be 5m x 5m x 5m and then inserted a face into the top face and extruded downwards to create the hollow 4-walled look. I textured the walls with Painted Rough Wall and the floor is Carpet 02.

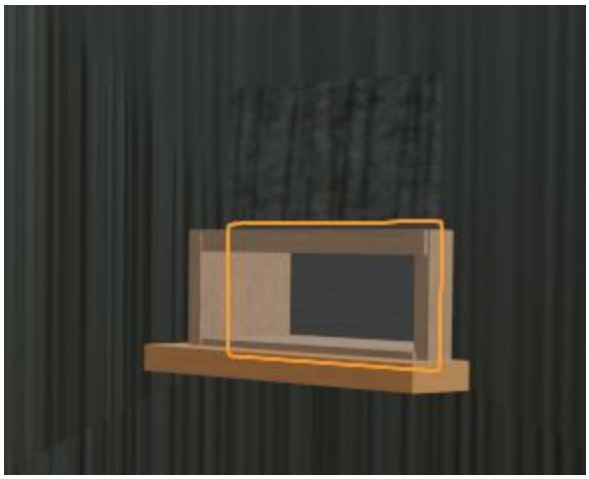


8. **The Table**

I created the table using the tutorial. It has the four elongated and scaled cubes for legs with a beveled cube table top. They are textured as Wood.003. This is one of my distinct furniture pieces.

9. **The Window**

I created the window using the tutorial. It has the five elongated and scaled cubes for a frame that are textured as Wood.003. The window sill is textured with a darker wood material. You can see through the wired cube mesh. This is one of my distinct furniture pieces.

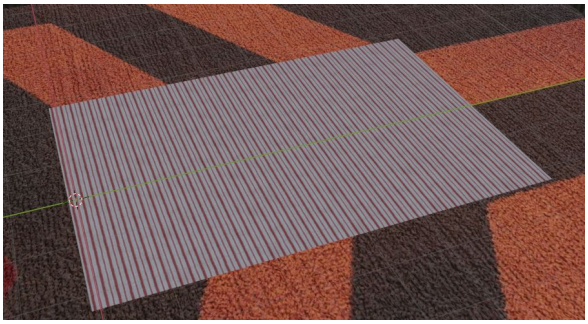


10. **The Shelf**

I created the shelf with an elongated and scaled cube mesh that is inserted into the wall. They are textured as Wood.003. This is one of my distinct furniture pieces.

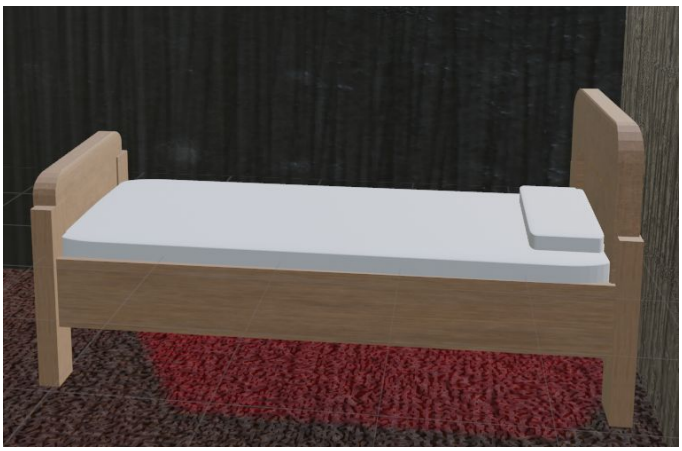
11. **The Rug**

I created the rug using a plane mesh that I elongated and then textured with Fabric Striped. This is one of my distinct furniture pieces.



12. **The Bed**

I created the sides of the bed frame and the legs from elongated and scaled cube meshes that are textured with Wood.003. The headboard and footboard have the same textures, and are beveled to be round and more realistic. The headboard also has an inserted face in its front face that as been extruded inwards slightly to create a design. That inner face is also beveled and has a darker color for decoration. The mattress, mattress pad, and pillow are also elongated and scaled cube meshes with solid white material colors. This is one of my distinct furniture pieces.



LINKS

YouTube Video: https://youtu.be/0kqmve309qI

Blender Files (Google Drive): VR Lab 2.zip