2-5 Milestone: Project Proposal

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A video game console and a game controller

Description automatically generated

2D Image to Recreate as a 3D Scene.

**Objects that will be created in 3D**.

I plan to use the scene above for the 2D to 3D conversion. I will recreate the TV, "D" light, Xbox, and Xbox controller from 2D to 3D in the image presented above. As a beginner, choosing to recreate a TV, "D" light, Xbox, and Xbox controller in 3D using OpenGL is an excellent decision for several reasons. Firstly, these objects are already familiar in their 2D representations, making it easier for me to grasp their 3D versions. Working with objects I am already familiar with helps me understand concepts such as depth, perspective, and spatial arrangement more effectively. Secondly, these objects offer a variety of shapes to work with, including cubes, cylinders, planes, spheres, and potentially torus shapes. This variety allows me to practice working with different geometry types and understand how to create complex 3D structures by combining simpler shapes. It provides me with various shapes to experiment with and learn from.

Additionally, these objects are part of our everyday lives, making them relatable and realistic subjects for my 3D work. Recreating them in 3D enables me to see my creations come to life and have a visual impact. It will be exciting to witness the transformation from 2D to 3D. Furthermore, starting with simpler objects like TVs and gradually progressing to more complex objects like Xbox consoles and controllers allows me to build my skills incrementally. I can begin with basic shapes and gradually add more details and complexity to my models as I gain confidence and experience. This progressive approach helps me to learn and grow as a 3D artist.

**Primitive Shapes that will be used to Create 3D Representations of the 2D Objects.**

To create 3D representations of the 2D objects TV, "D" with circular lights, Xbox, and Xbox controller using the given primitive shapes, I will utilize the following shapes for each object:

1. **TV:**
   * Screen Panel: A Plane shape will be used as the TV screen panel.
   * Frame: A Cube will form the main body and frame of the TV.
   * Buttons and Ports: Small Cylinders will represent the control buttons and small Cubes will represent the connectivity ports on the TV.

Using Cubes, Cylinders, and Planes to create a TV enables me to capture its basic form and features. Cubes will be used for the main body and frame of the TV. Planes are suitable for the screen panel. This selection allows me to create a recognizable 3D representation of a TV by focusing on the key components.

1. **"D" with Circular Lights:**
   * Letter "D": A combination of Cubes, Planes, and Cylinders will be used to construct the letter "D" in a three-dimensional form.
   * Lights: The circular lights will be represented by Spheres positioned accordingly.

Using a combination of Cubes, Planes, and Cylinders, I can create a 3D representation of the "D" light. Cubes and Planes will be employed to construct the letter "D" in a three-dimensional form, capturing its shape and proportions. Spheres will represent circular lights, enhancing the visual appeal. This choice enables me, as a beginner, to explore the transformation of a 2D shape into a 3D object and experiment with arranging multiple components.

1. **Xbox Console:**
   * Console: Cubes will create the main body and structure of the Xbox console.
   * Power/Pairing Button: A small Sphere will represent the power button on the front of the console.
   * Connectivity Ports: Cubes will be positioned on the back and front of the console to represent the various connectivity ports.

The choice of using Cubes to create the main body of the Xbox is based on their versatility and simplicity. Cubes will represent the rectangular sections of the console, while Cylinders will be used for curved elements. This choice allows me, as a beginner, to create the basic structure of the Xbox, capturing its overall shape and proportions. I can gradually add more details and refine the model by starting with the main body structure, such as the power button and connectivity ports.

1. **Xbox Controller:**
   * Body Structure: Cubes will be used to create the main body structure of the remote. Adjust the size and position of the cubes to match the overall shape of the remote.
   * Buttons: Small cylinders will be used to represent the buttons.
   * Handle Grips: Cylinders will be used to represent the handle grips of the remote. The Cylinders will be scaled and positioned accordingly to match the proportions of the remote.
   * Triggers: Cubes will be used to represent the trigger buttons on the back of the remote. They will be positioned appropriately on the backside of the remote's body.
   * Analog Sticks: Cylinders will be used to create the analog sticks of the remote. They will be scaled and positions to match the size and placement of the analog sticks on the actual remote.
   * Thumb sticks: Flattened Cylinders will be used to create the thumb sticks. The cylinders will be scaled and positioned to fit on top of the analog sticks.
   * Directional Pad: A flattened Cylinder will be used to create the direction pad and cubes will represent the up, down, left, and right directions on the pad.

Using Cubes to construct the main body of the Xbox controller and directional pad buttons offers a straightforward approach. Cylinders will represent the buttons, base of the directional pad, handle grips, and analog sticks and will be used for the thumb sticks. This choice allows me, as a beginner, to focus on capturing the essential features and ergonomics of the controller. Starting with the main body structure, I can add details like triggers and analog sticks using additional Cubes and Cylinders. This incremental approach ensures achievable results while maintaining excitement and engagement.

**Plane**

I will utilize the following Planes for grounding each object:

1. **Wall:**
   * Wall: A Plane will be used to represent the wall that will ground the TV.
2. **TV Stand:**
   * Top: A Plane will be used as the top of the TV stand that will be used to ground the rest of the objects (other than the TV).