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1-4 Final Project Review: Shapes and Image Selection

From those four images, several objects can be broken down into basic 3D shapes and they involve the monitor, keyboard/mouse, pencil cup, notebooks, and a mug. A monitor can be represented by one box for the screen and tapered cylinders for the stand. However, the box would form the main display area while tapered cylinders stimulate narrowing stands that support the monitor. On the other hand, both the keyboard and mouse can be modeled through the use of boxes. Keyboards are essentially rectangular boxes and the mouse is slightly more rounded like a circle. They can be simplified into boxes for basic 3D modeling purposes. A pencil cup is mostly represented by cylinders for the main body. Although the pencils that are fitting inside the cup can also be modeled as tinier, elongated cylinders. For notebooks, one of them can be modeled as a thin box. Stacking notebooks on top of one another will just include aligning these boxes vertically in slightly offset positions to imitate how they appear in images. Mugs can be modeled through the use of a cylinder for its body and a torus for the handle, looping out from the mug’s main body.

A mug can be considered at least one object that would need multiple shapes to replicate. The cylinder is the mug’s main body, but the handle is a torus. Combining those two shapes with proper accuracy represents the mug’s overall structure.

There are some areas where the image of a mug could be simplified in a 3D replication. This represents the details on objects such as text on the keyboards or specific designs of a mouse being omitted to make the modeling process easier. Those details don’t significantly alter the object’s perceived shapes and later, it can be included as textures if it is necessary to gain more detailed visualization.