

# Project Proposal

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For this milestone, I'm diving into the world of 3D modeling by creating a scene based on 2D images of objects on a desk. A desk setup is a great starting point because it allows me to explore basic 3D shapes in a simple but dynamic environment. To start, I'll be selecting images of common desk objects like a lamp, laptop (or iMac monitor), pen holder, coffee cup, and potentially a plant. If I go the route of taking my own photo, I'll make sure to capture the scene from various angles to help me replicate the objects accurately in 3D.

I picked these items to replicate for both the simplistic and complex approach that it will require. For instance, the lamp is a solid choice for the scene, as I can use a cone for the lampshade and a cylinder for the stem and base which will give the lamp both structure and realism. For the laptop or iMac monitor, I'll rely on boxes for the screen and keyboard, with a plane to represent the flat surface of the screen. I can also incorporate smaller cylinders for buttons or ports. The pen holder will be modeled using a cylinder to represent the main holder, with smaller cylinders for the pens inside. For the coffee cup, I'll use a cylinder for the body and a torus for the rim, along with a small cylinder for the handle. If I add a plant to the scene, I'll use a sphere for the leaves and a cylinder for the pot.

To further explain, the cone for the lampshade works well because it mirrors the common tapered shape of many desk lamps. The cylinder for the stem and base ensures both stability and balance. The box shape is perfect for the laptop (or iMac monitor) to reflect its rectangular form, while the plane captures the flat surface of the screen. The cylinder for the pen holder is a natural fit, as it mimics the shape of a cup. The coffee cup's cylinder body and torus rim are a perfect

match, with the small cylinder serving as the handle. For the plant, I'll use the sphere for the leaves, adding organic detail, and the cylinder for the pot will keep it grounded.

It is my hope that this proposal serves as both an example of thoughtful planning and an exploration of the fundamental principles of 3D modeling. By breaking down each object into basic geometric shapes, I'm not only simplifying the process of replication but also honing my skills in translating real-world visuals into digital representations. Let's get to work!