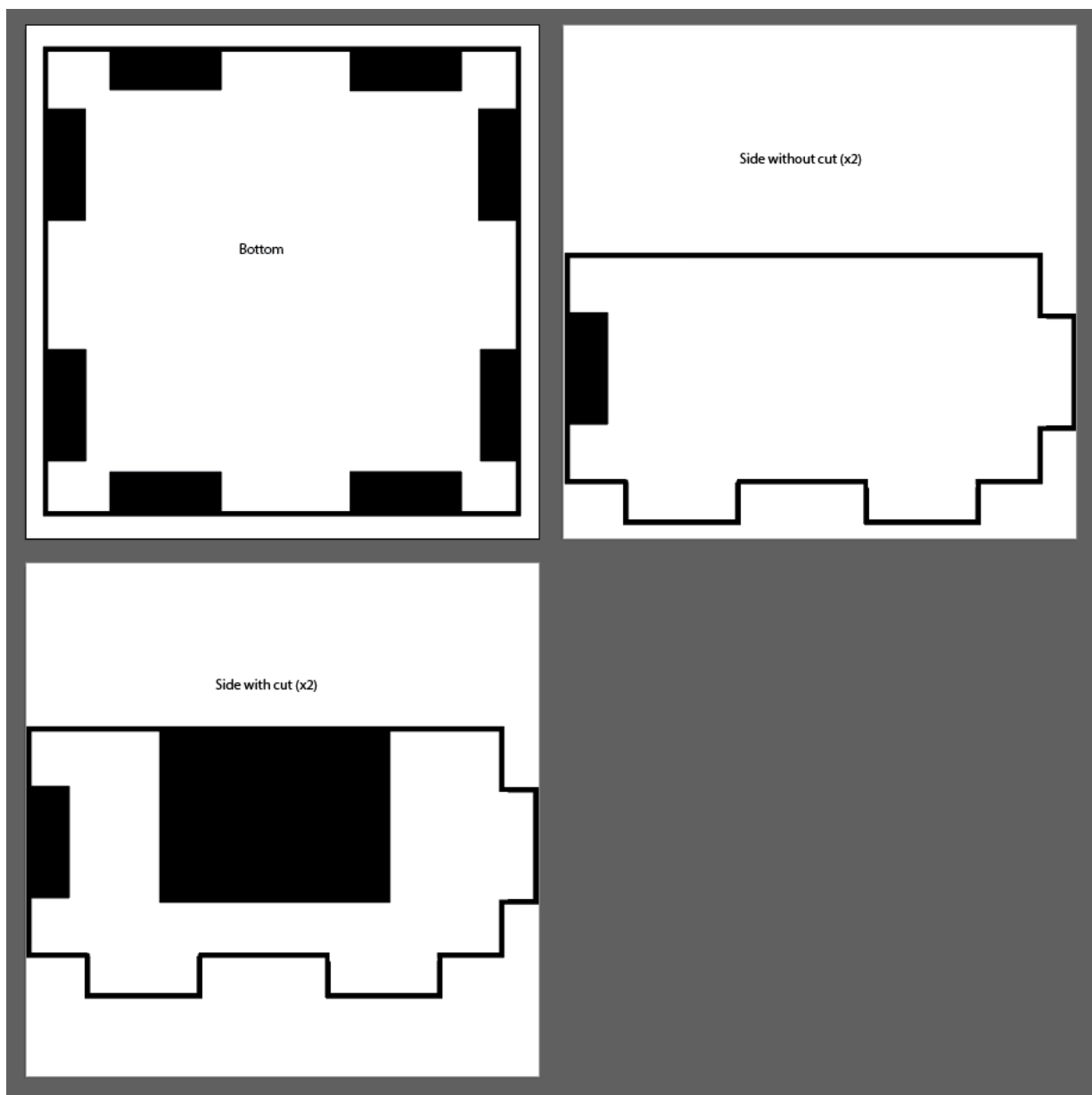# Lazer Cut Box & Coasters

Bottom

Side without cut (x2)

Side with cut (x2)

Background

For the laser cutting assignment I wanted to experiment with adobe illustrator. Because of this, I ventured to build a series of two-dimensional shapes that could be laser cut and assembled into a box for custom coasters. This box would be easily assembled by organizing the pieces cut out and applying glue to ensure they hold in position.

Design Process

The first stage was deciding how to best represent a box in 2D. It is very easy to build boxes in SOLIDWORKS because the software allows a user to quickly and easily extrude the shape. However, when building a 2D representation of a 3D object, one must get a bit more creative. At first, I planned to just make 4 rectangles and hot glue them together, but this felt structurally unsound and a little lackluster. Instead, I opted to create a series of interlinking shapes, each of which connects to the next component. This felt more creative and far more likely to hold itself together in the presence of daily stresses that a coaster holder may experience. I then opted to create three designs for the actual coasters that could be laser cut into. I will make two of each design for a total of 6 coasters. After the coasters are done being cut

Software

Right now the software I used was illustrator. If this proves to be too difficult, I will switch back to SOLIDWORKS. However, for this project I was interested in learning how to solve more engineering based problems in illustrator.

Overall

This was an engaging and challenging process that forced me to use a program less suited to 3D modeling. I have some experience with illustrator, but the program is better suited to the artistic component of this project. I believe that I see how illustrator can be used to great effect in component modeling and look forward to gaining more experience with

IMAGES

Bottom

Side without cut (x2)

Side with cut (x2)