**Press Fit Box**

Create a 3 inch by 4 inch press fit box that includes design and holes for light to shine through.

The steps were as follows:

* Phase 1
  + Make the design of the box sides to fit the dimensions of the wood
    - Outside dimension of 3x3x4 inches
  + Design lazer ready
  + Make lid into a clearance fit
  + All other sides of box are press fit, and fit snugly
  + Cut test joint
    - Edit the box from there
  + Save file and label
* Phase 2
  + Sketch engineering drawing for box design and topper
    - Include cut for light to pass through
  + Score, raster, and cut design onto box
  + Assemble box
  + Put lightsource in box
  + present

**The process:**

After creating the basic shape of the box I started to draw the engineering drawing. I already had a vague idea of what I wanted my design to look like, I wanted it to be calming, an abandoned building, and have aspects of asian culture represented respectfully and contain 3-dimensional aspects. I also wanted it to demonstrate how much detail could be put into something. After the sketch was created I used noun project, google and Adobe illustrator to create the details. For the topper of the box I wanted to use the concept of an abandoned shrine on the roof of a building. I used the design of a Japanese Shinto shrine. These Shrines are not used mainly for praying but for housing a deity and protecting sacred objects. I thought it was interesting to have this sacred fixture for protection on a decaying building, almost as if the building was being protected from destruction. The building was also designed with lanterns, doors, windows, a fire escape, a person and more. These designs were fit to the project dimensions and then scored, etched, and cut onto wood. For the lanterns I cut them onto red painted wood to add a pop of color. After assembling the box I then glued on the elements that were supposed to be 3D. Then the box was finished.

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| *Box side design* | *Test joint* |

**Challenges, setbacks, and solutions:**

When creating the test joint I realized that the box side were too small to fit together and I would have to increase the sides. It was a very easy fix and only took 3 tries to finally get the correct size and snap the pieces together.

It was also just a lot of hard work to create all the features and design aspects in Ai and totaled to about 5 whole hours of computer work to get the design I wanted.

Lastly when scoring a small incense image on the topper it had come to my attention that there was a double vector that was a hazard. I stopped the machine deleted the extra vectors and continued printing the design.

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| *Engineering drawings* | *Ai complete box file* |

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| *Finished project* | |