3D Fab description

Jessica Shangcao Yuan

For this final project, I made a wood bag by laser cutter. At the beginning, I thought I would like to make a geometric shape for the bags, and use 3D print to make some jewelries, which made the bag look like a girl's bag. However, after that I got some inspiration from living hinge, and thanks Marty for inspiring me. I tried to challenge myself to made the wood can be folded. I found some patterns online and tested them to see if those worked. I tried couple of time while adjusted the space of patterns of each line. For my first design, I tried to make everything on one piece of wood, but when I did laser cut, the power is too high and my wood burned. I thought it was because of the laser setting, the power and the speed. I tried again, the wood burned again. I asked the tech person, and he said the laser cut was not focus because the wood was not flat. He suggested me to separate each part and cut them. However, the wood was not flat even on the small different parts. The tech person Ryan helped me to keep focusing on the wood. However, I could not bend the wood, and I broke it. Last time, I decided to separate the bag into several small pieces and glue them together because the small pieces always worked very well. I redesigned my bag and cut them again. Finally I made it! I found out

the best setting of cutting bending wood on the laser cutter is under AA vector testing with 80 power, and 2.25 speed. The wood did not look like burning underneath, and also it cut through. Finally I used fiber, hinge and magnetic button to make the bag functional.