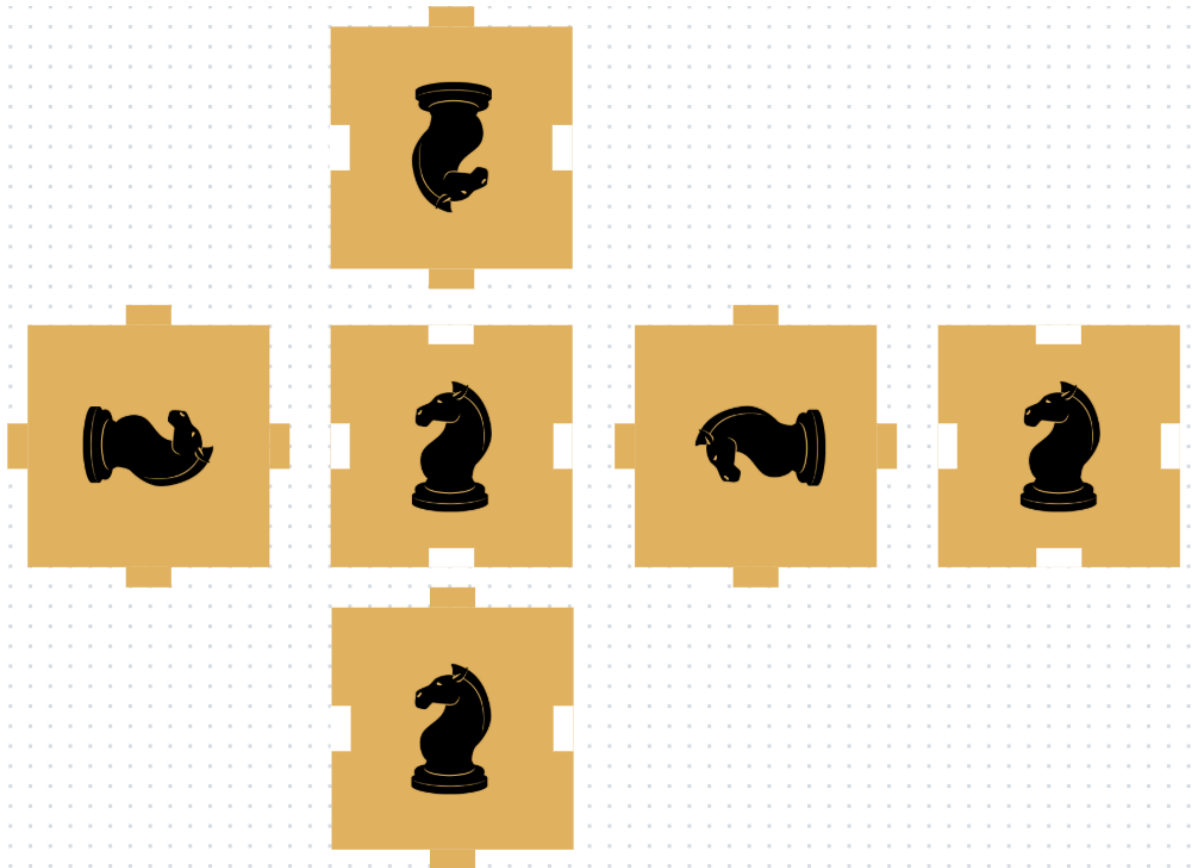


In the second version of my building block, I came to the understanding that the block should actually be buildable and that the term 'building block' was also relatively literal. So, I decided to continue with a block that fits 'me'. In my first iteration I created different designs for a chess knights. I decided to leave this for now but wanted to continue with a chess related building block. My idea was to have some form of stackable chess block. First of all, I started with some initial plan. This can both be seen as a very first prototype as well as a backup plan. I created the image below which was supposed to be printed and pasted to a piece of cardboard folded as a box.

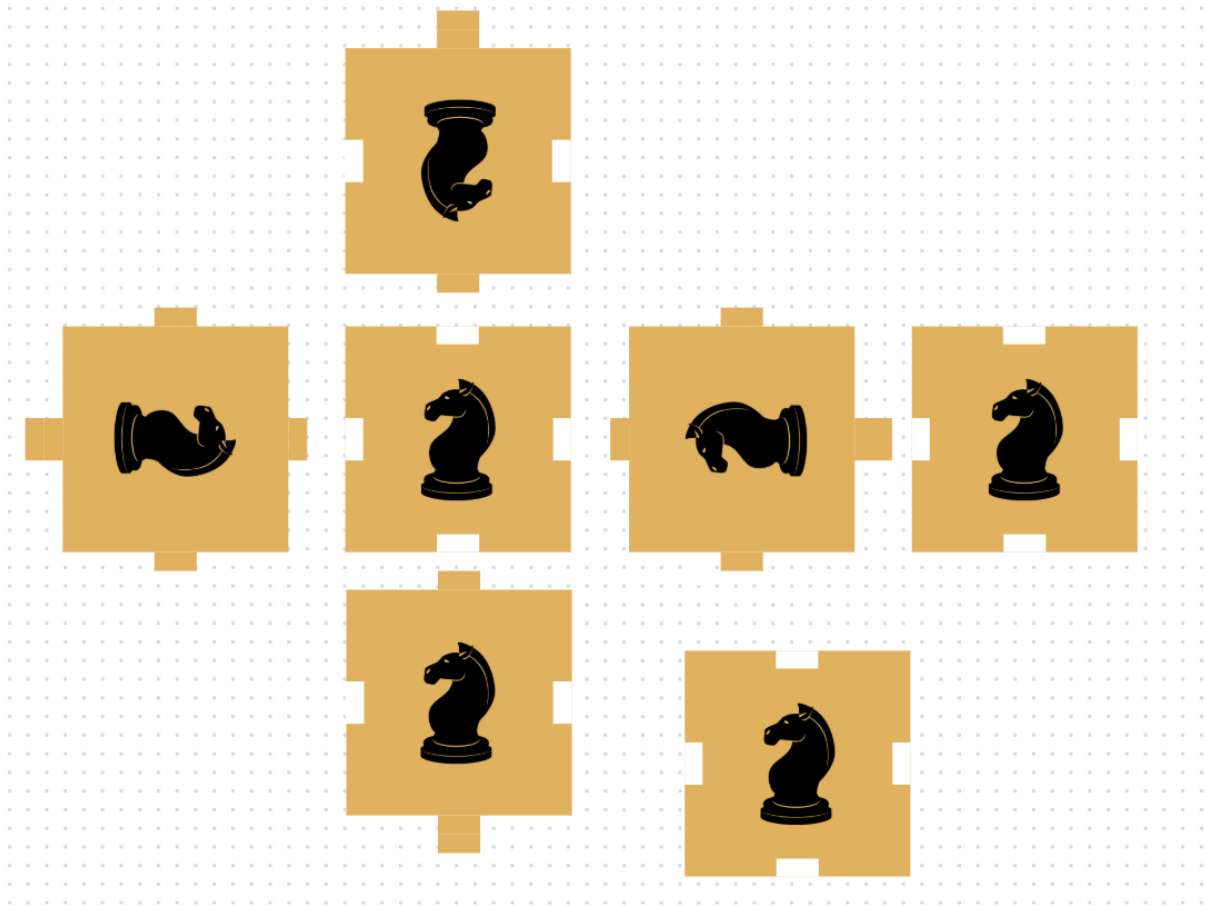


Quickly afterwards, I decided to make a better design, so I decided to try out the template maker Canva [1] for the first time.

Using Canva I created the following design for a box.

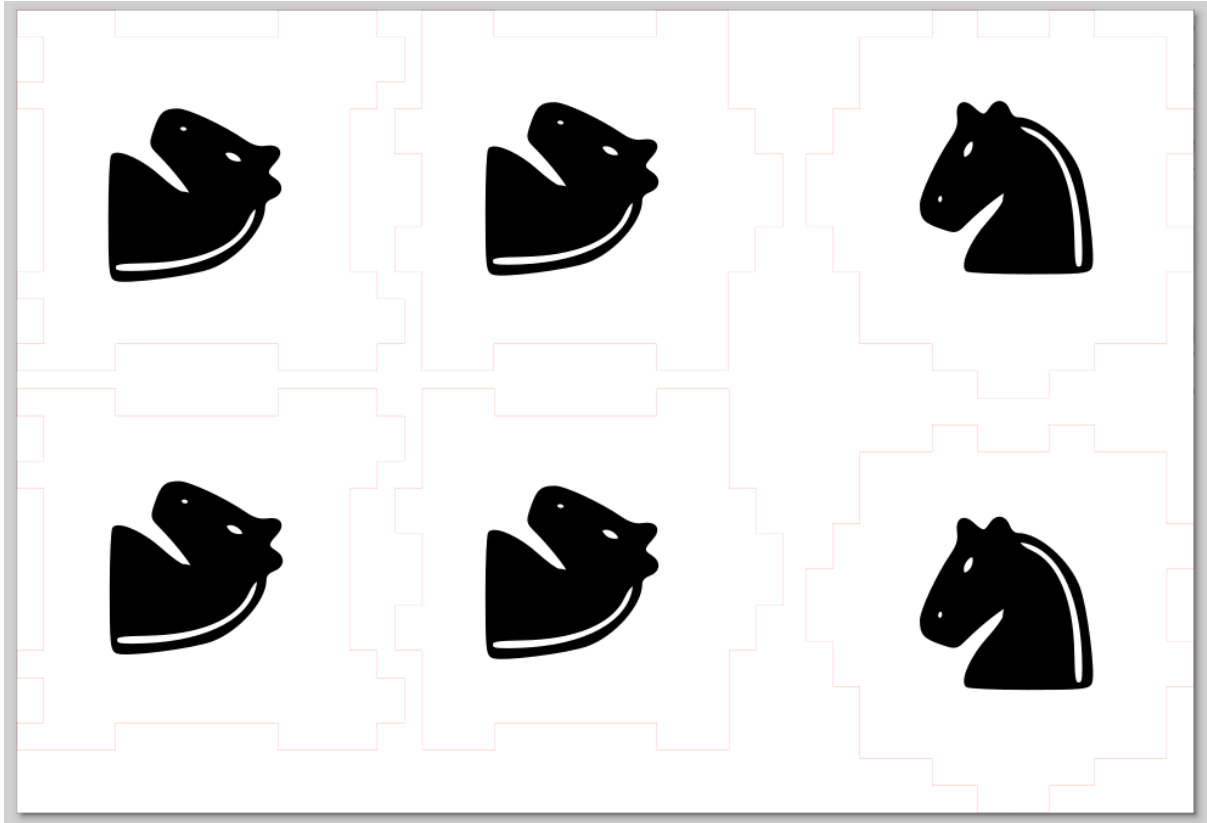


I deemed this design for a box a little bit too easy for this assignment, so I continued thinking how I could extend on this design. I came up with the idea to make easily stackable chess boxes. This would make a chess variant possible that I thought of. My idea for this chessvariant (as to be expected) was not unique. After a bit of research I found the name ‘absorption chess’. In this variant a piece gains (absorbs) the movement of the piece it captures. With normal chess pieces it would be impossible to keep track of which piece took which one. With these box shaped pieces, you can place them on top of each other to easily keep track of which piece took which one. The current box however is stackable, but I wanted a design that slides into each other with pegs. This resulted in the following version.

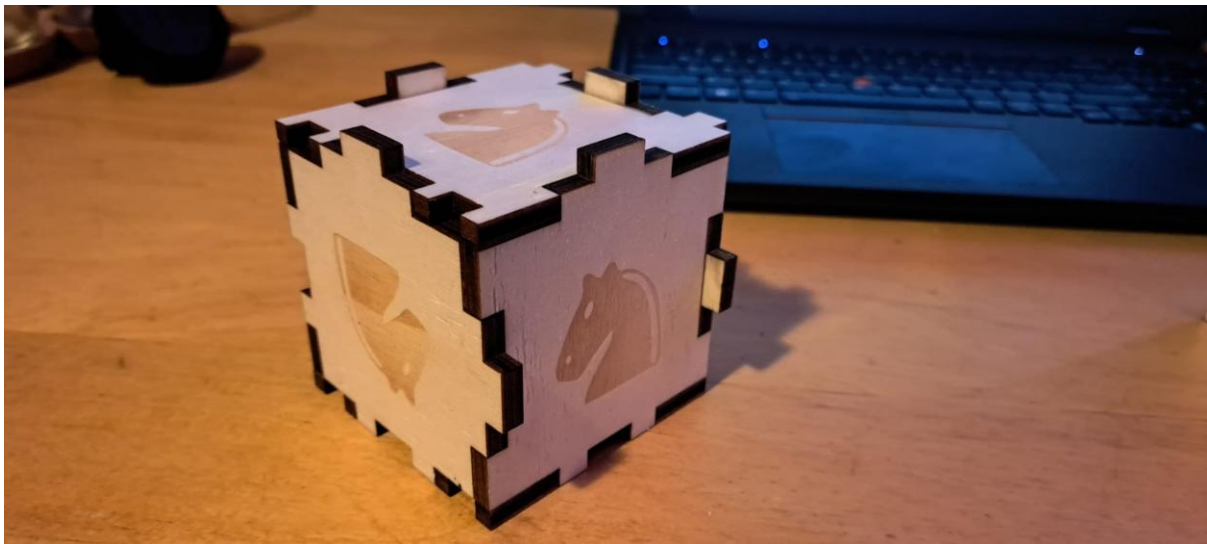


In this design, four pegs have been made longer. There also is an extra bottom piece. This bottom piece would be glued on top of the other bottom piece in order to make it possible to vertically stack pieces. I was still not fully satisfied with this idea. I wanted to be able to stack pieces in all directions. This is not needed for the variant, but it seemed cool to me and it would also make it somewhat possible to lock all pieces together in a big box shaped figure. I wasn't sure how to implement this. I could add an extra piece to all sides, but the pegs don't easily fit together, and the box would be twice as thick. I did not like this added thickness and opted for a smoother design.

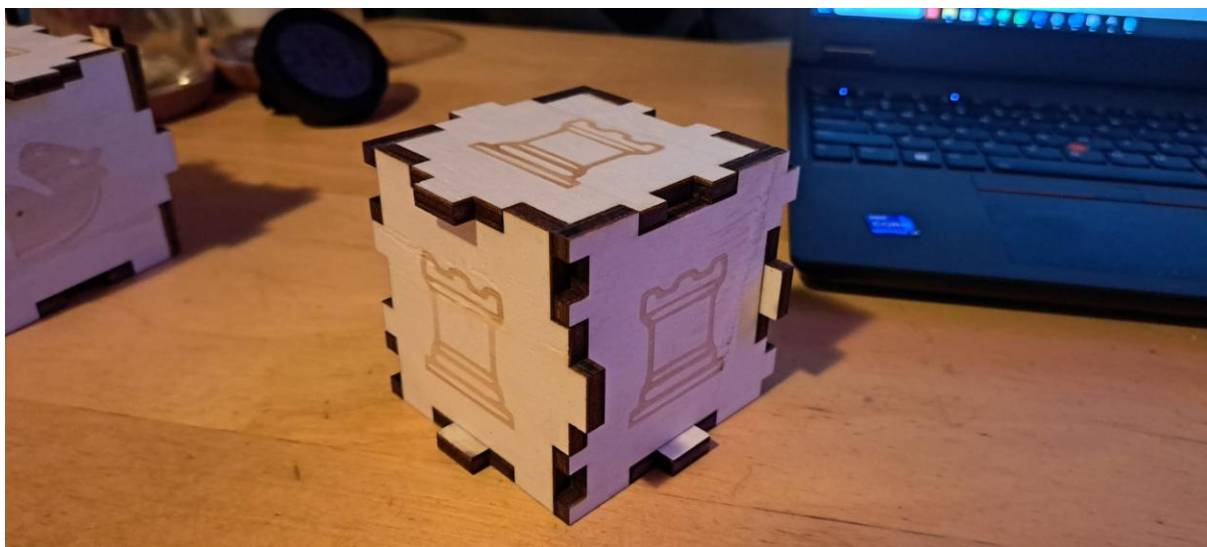
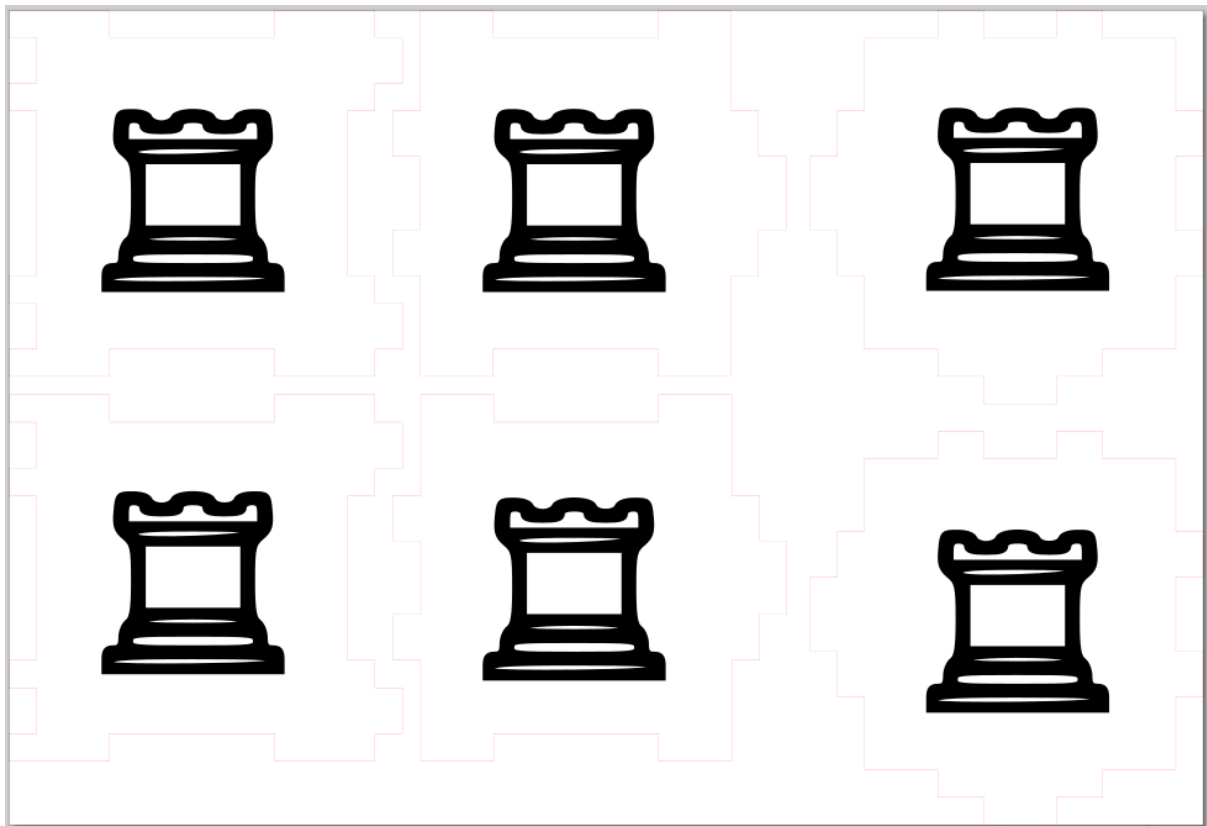
With full courage I opened Inkspace for the first time and went on to design a woodcut compatible file. It took quite some time to get used to the program, but I managed to create the following a svg file was can be seen in the image below.



I brought this design to the DesignLab and after some puzzling I had made this lovely cube

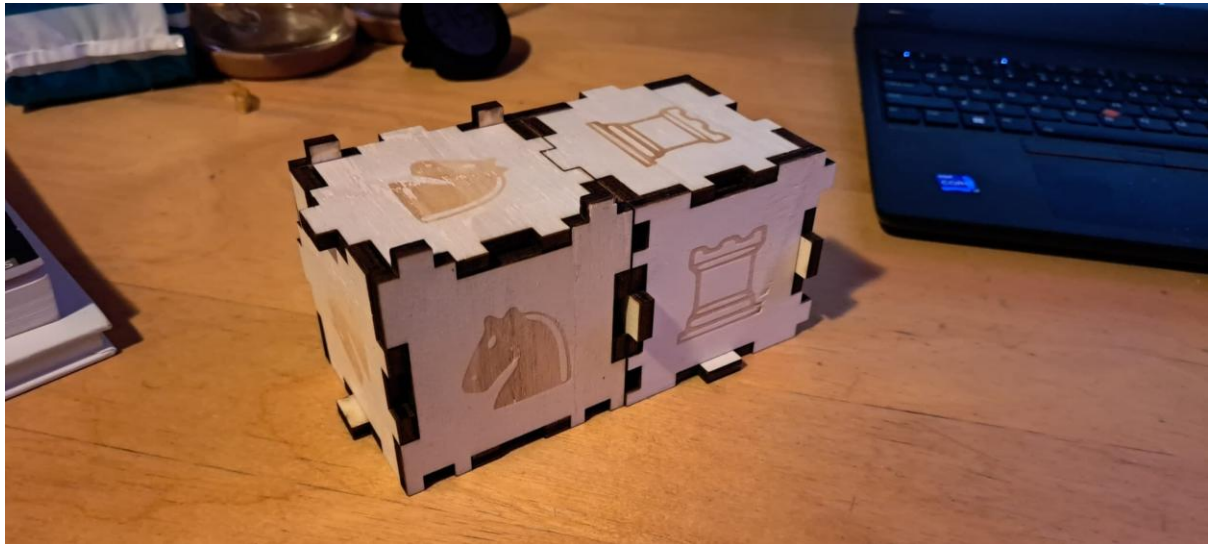


I'm really happy with how it turned out and was almost surprised that I did not make any mistakes in the program with my dimensions. After that I also made a version of a rook. I changed the orientation of the engraving such that they are all standing upright.



In this final design that I have there are two types of pegs. The pegs that are required to construct the block itself, and pegs that are there to connect with other blocks. I really like how the design turned out. As mentioned earlier, my other option would have been to create a double layer and solve the problem like that. In my opinion this design is

sleeker. With this design, there is at least one face that does not have a peg coming out. This is done such that the box can stand on the whole bottom surface. Depending on how you construct the faces of the block, it is possible to create 3 smooth faces and 3 faces with pegs. The blocks fit neatly together and I am really happy with how it turned out. I did not want to use up too much material from the DesignLab, but in the future I might downscale the boxes to a smaller version and create a whole chess set with these boxes.



To create some interfacing, it would be possible and cool to use magnets for the pegs instead of wood. Then the separate pieces would really stick together. It would then also be possible to play chess on your fridge (due to the magnets). It was not feasible to easily implement this idea with magnets in real life given the time available for this assignment. Another way in which the box can be used is by glueing all but one side together. In this way, the piece also serves as a hidden box in which something can be stored.

References

1. Gehred, A. P. (2020). Canva. *Journal of the Medical Library Association: JMLA*, 108(2), 338.