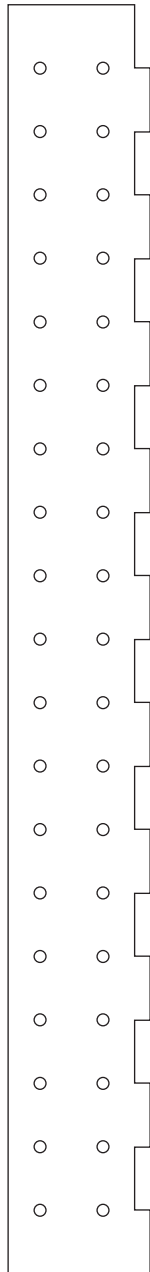


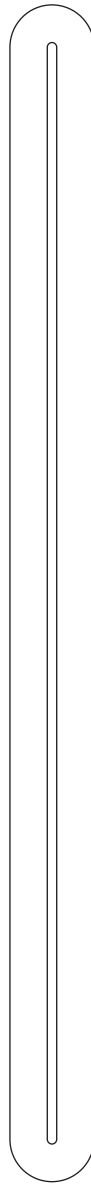
BLACK BOX INSTRUCTION MANUAL

By: Augusta Lutynski
2024

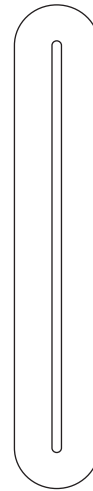
CORNERS (X10)



LARGE TRACKS (X20)



SMALL TRACKS (X6)



WASHERS (X28)

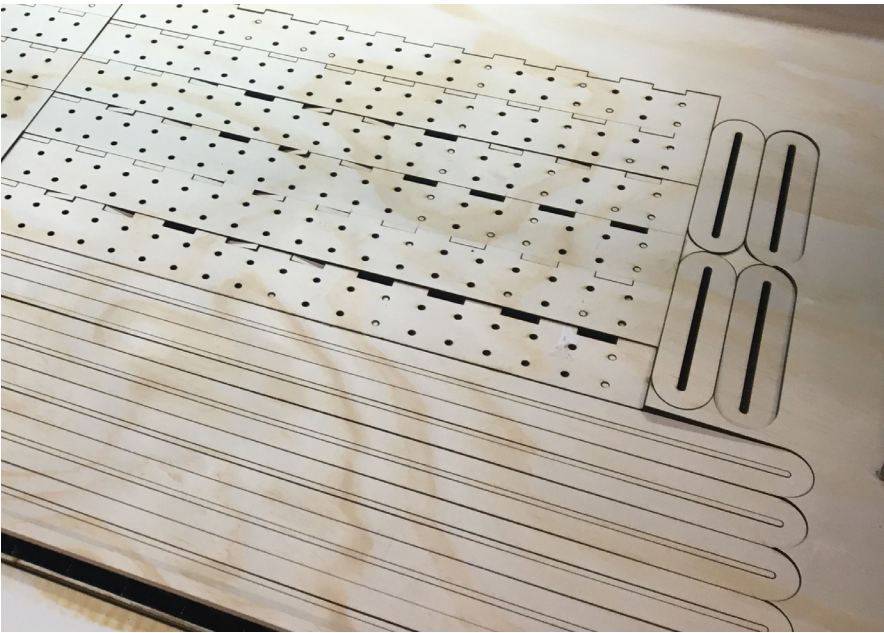


TO PURCHASE:

- machine Screws: 8-32 x 1"
- wing nuts: 8-32
- wood glue
- black Stain: Saman black/noir #108 (water based)
- sponge
- 'C' clamps

LASER CUT THE BLACK BOX

LASER CUTTING



The plywood for the Black Box needs to be $\frac{1}{4}$ " thick with a surface area of 10' squared. The Ai file attached is fit to a bed of 2' x 5'.

Using a laser cutter, cut the Ai file into the $\frac{1}{4}$ " thick sheet of plywood. You may need to reorganize the Ai file depending on the size of your laser cutter/plywood sheet. Depending on the laser cutter you may also need to adjust the stroke weight and stroke colour for the machine to register a cut line.



STAIN THE WOOD

PRE ASSEMBLY



Apply black Stain to your pieces with a sponge. I recommend Saman black (108) water based stain, it is important that the stain is matte.



Lay all pieces flat and stain one side, wiping away any excess stain that the wood does not absorb. staining the edges of the pieces is not necessary.



Allow for the stain to dry for at least two hours and flip the pieces over to continue staining the other side. Don't forget to stain the washers!

GLUE CORNERS

PRE ASSEMBLY



Using wood glue, glue the interlocking corners together to make a set of five (there is one extra one in the set). Lightly brush the wood glue along the edges of both pieces.



Press the pieces together at a 90 degree angle.



GLUE CORNERS

PRE ASSEMBLY



Use 'C' clamps to hold the pieces together as they dry.

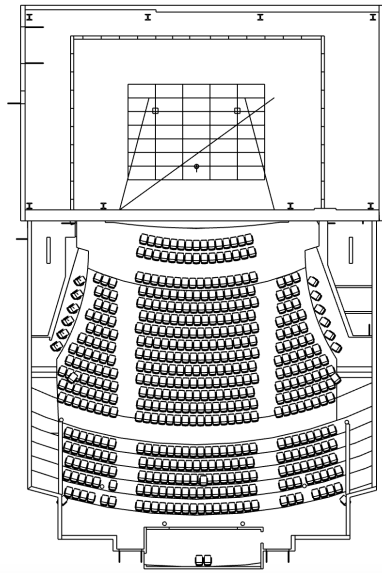


Wipe any access glue away, whatever is left on the piece will dry and stay visible.



Allow to dry over night.

1



Measure the theatre space from a CAD drawing or Tech Drawing and convert the measurements to ($\frac{1}{8}$ ", $\frac{1}{4}$ ", $\frac{1}{2}$ " scale).

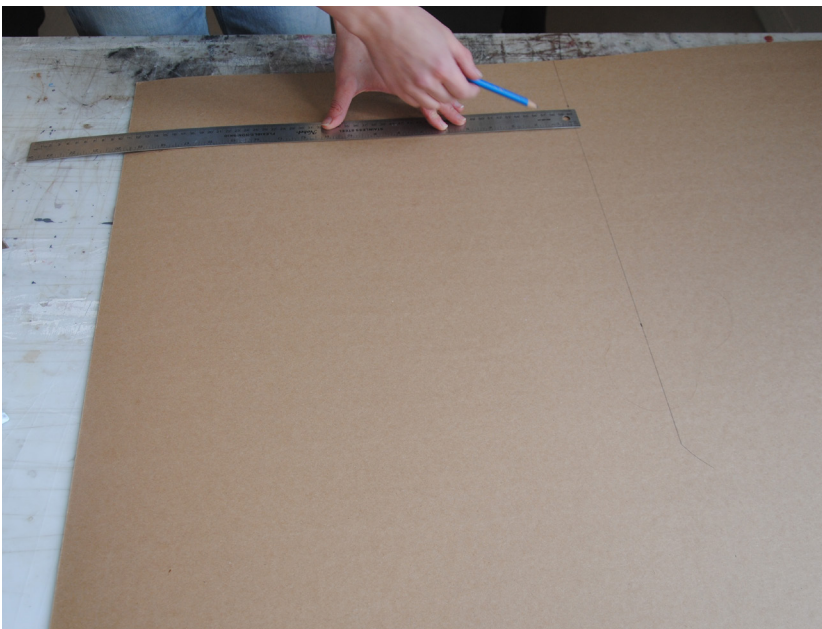
2



Draw your scaled ground floor out with a pencil on your cardstock. Measure twice cut once.

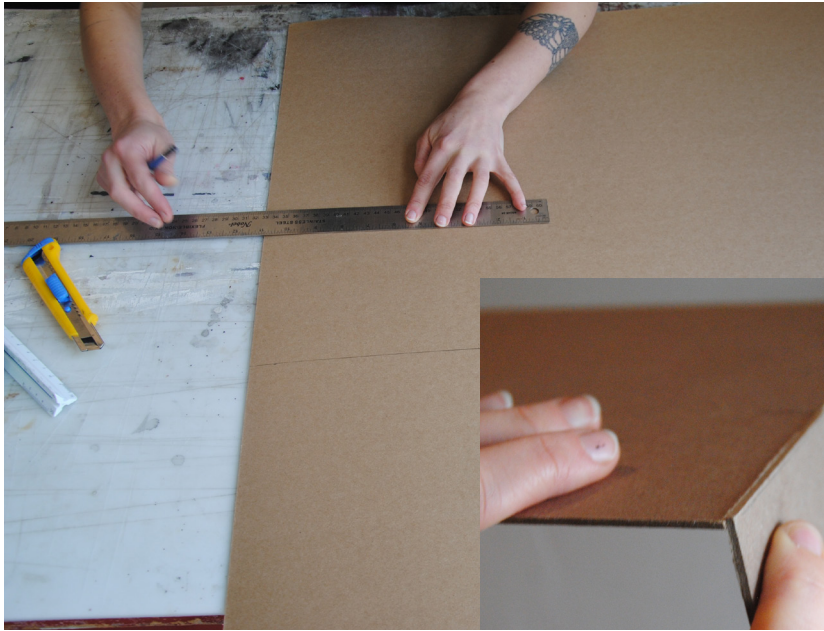
Cut cardstock with a cork backed metal ruler and blade. Do multiple firm passes rather than trying to cut in one hard go.

3



Draw the scaled front and back walls of your theatre space. Make sure you consider the desired height of your floor and add that to your wall height [ref: "tips for raised floors and traps"] below.

4



Remember to compensate for the thickness of your material when measuring and cutting your side walls.

For example, If your cardstock is 1/8" you would need to add an additional 1/4" per side wall. This ensures that the front and back walls overlap at the corners [ref: close-up image]. Draw your walls out with a pencil on your material. The walls should fit around your floor. Measure twice cut once.

5



If you have a proscenium arch, cut the arch out of your front wall piece.



6



If you want your theatre space black, stain the cardstock with india ink using a sponge. Work quickly, one coat is enough. Let the pieces dry and flip to repeat on the other side if you want both interior and exterior black.

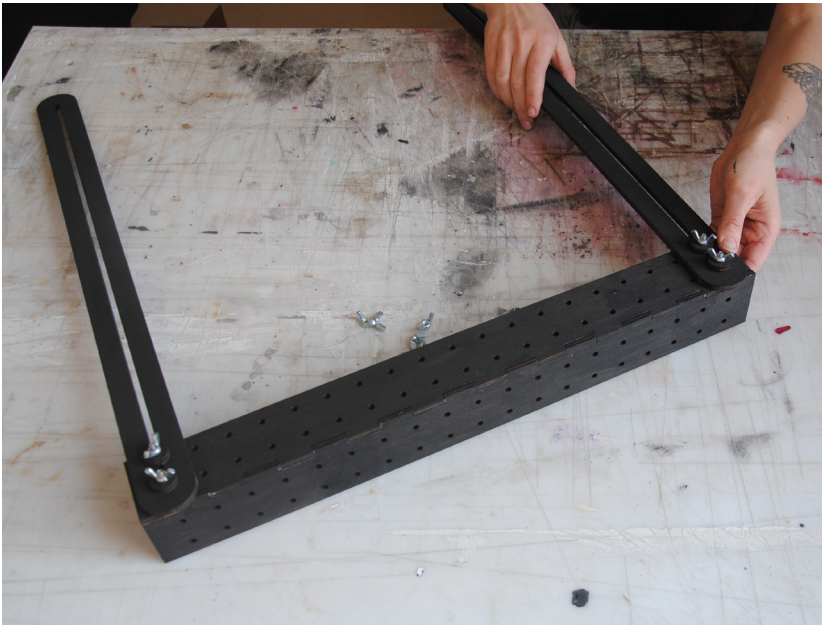


7



Attach one end of the sliders firmly to each corner. Use machine screws (8-32 x 1"), wood washers, and wing nuts (8-32) to attach the pieces together.

8



For a sturdier box, place two sets of sliders on each side.

9

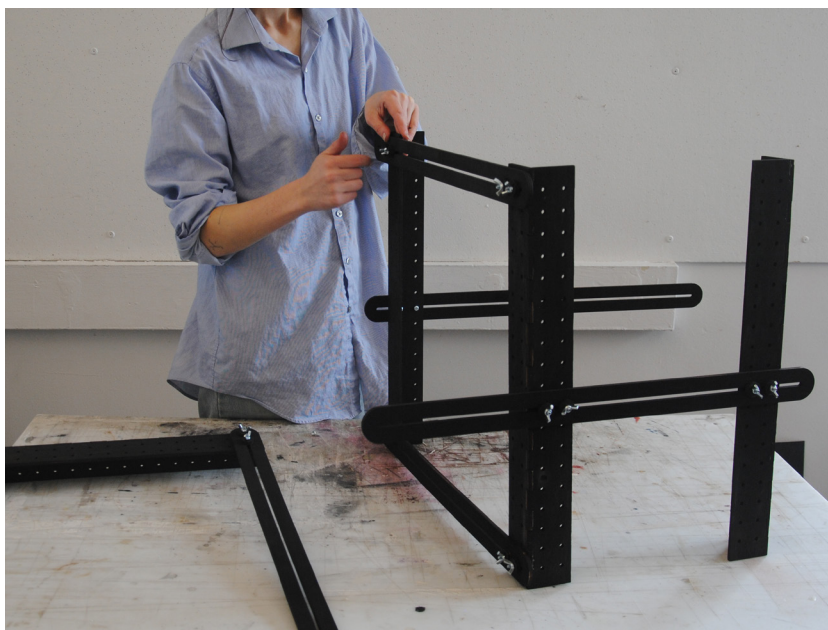


The sliders should run parallel to each other on each wall. Think about your design, and set the sliders where they won't interfere with viewing the maquette/ the proscenium arch.

10



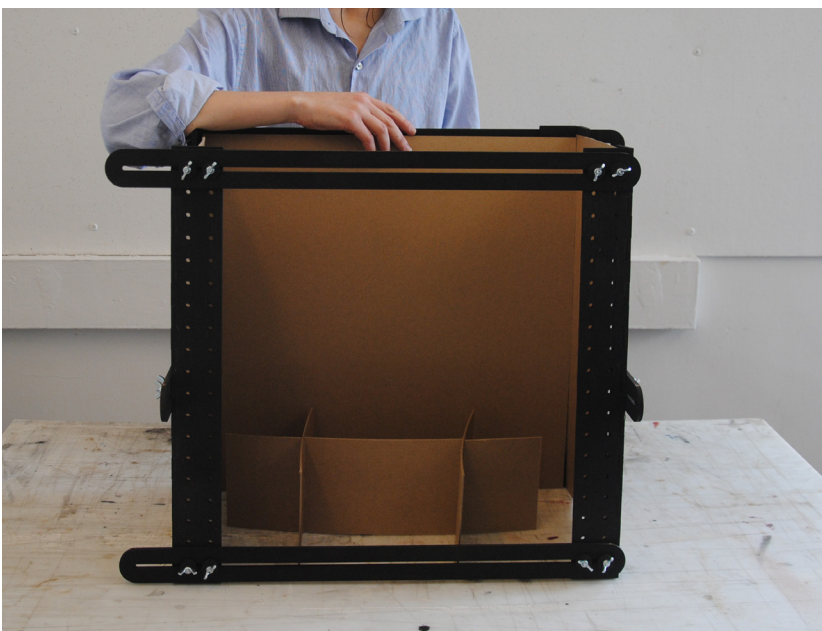
Attach the other ends of the sliders loosely to the remaining two corners to form the four sided box.



11



If you have a floor lift for traps, place that in your Black Box. Place your scaled walls into the Black Box.





12



Tighten the Black Box structure around the maquette to secure the pieces in place.

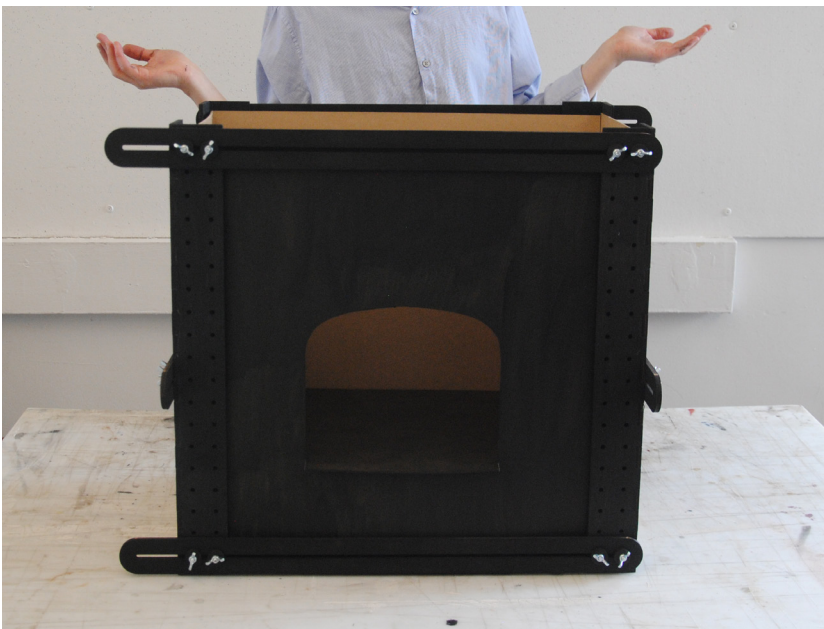
13



Slide the floor in.



14

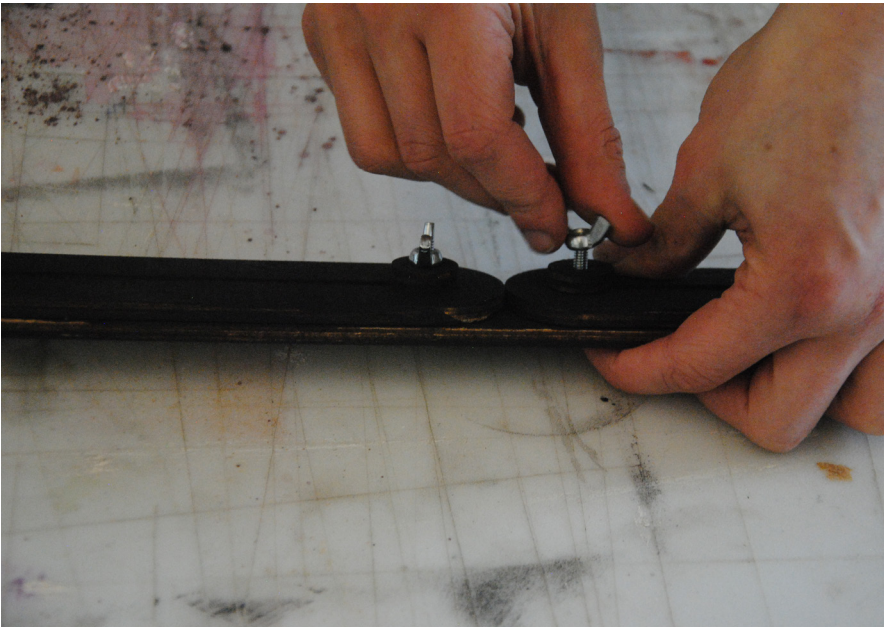


Done!

DIFFERENT SIZES:

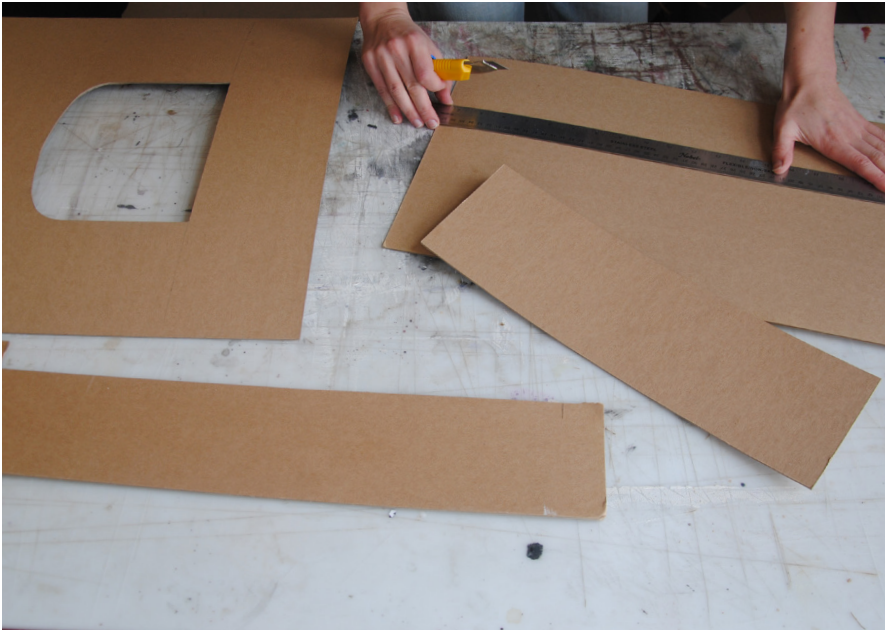
TIPS

- If your theatre space is large or your working $\frac{1}{2}$ " scale you may need to attach a third slider in the middle of two sliders to elongate the slider peice.



RAISED FLOOR AND TRAPS:

TIPS

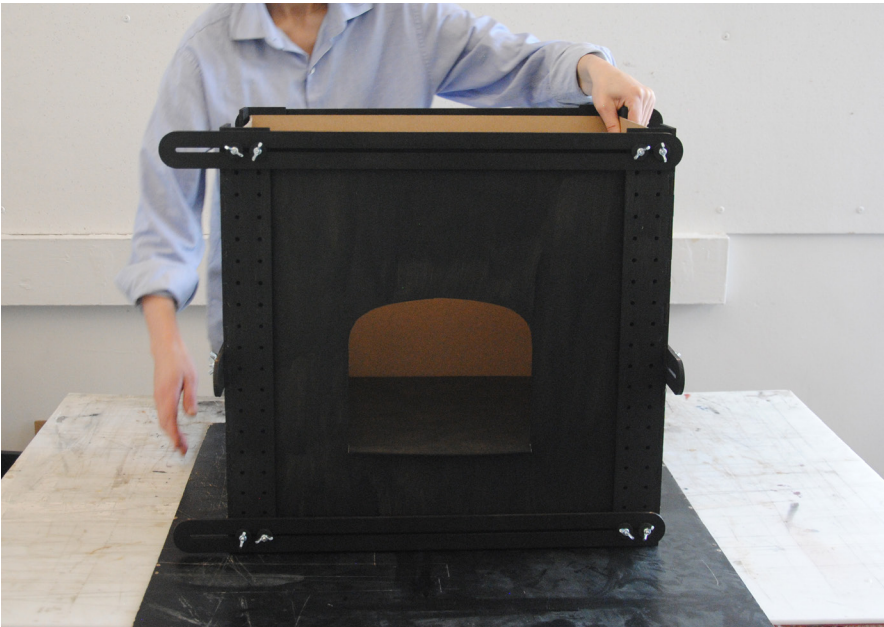


- If you want a raised platform, choose the height you want your floor sitting at and build a cross braced structure that you can rest your floor on. These structures can be disassembled and re-used for all your raised floors. Make sure you think about floor height when you cut out your walls.

TRANSPORTATION:

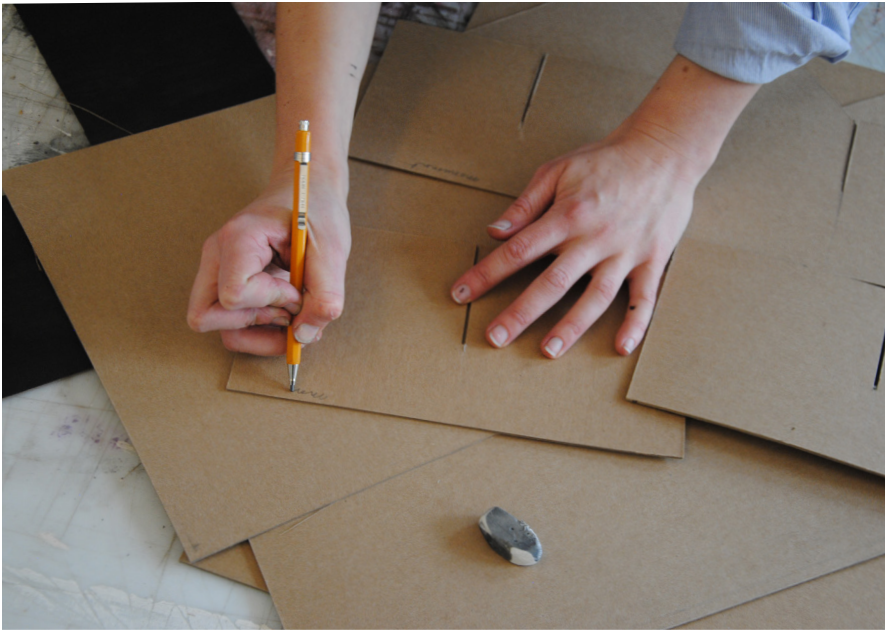
TIPS

- If you want to be able to move your maquette from one table to another it is easiest to build the black box ontop of a flat surface (like you would for a puzzle). That could be a piece of cardstock or ply that is slightly larger than the area of your space.



STORAGE :

TIPS



- When you are disassembling your maquette, keep your corners, sliders, machine screws, washers, and wing nuts together; this is the kit you will re-use for each project. The walls and floor can be disassembled and stored flat or recycled. If you want to keep the maquette for future projects, I recommend writing the name of the theatre in small type on each piece so you can start to keep track library of maquettes.

