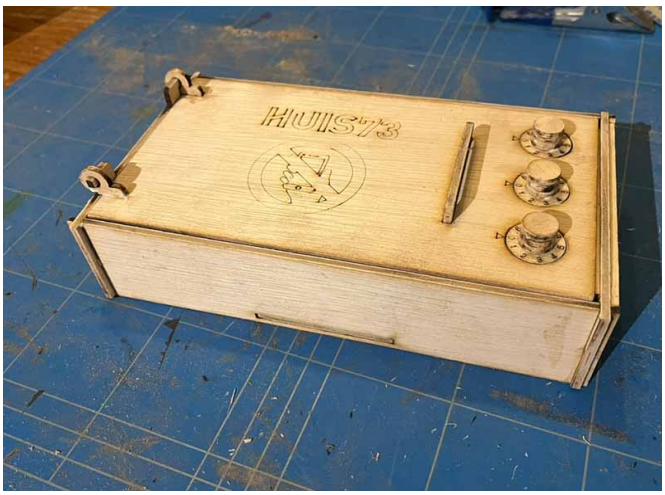
Phone vault



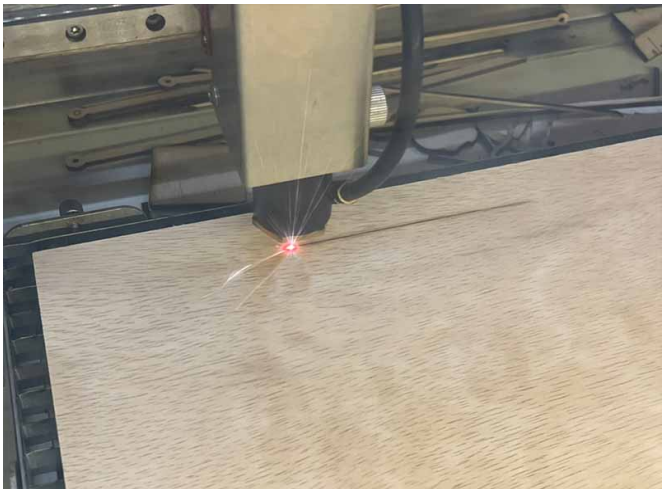
duration: 30 - 60 minutes
age: from 7 years

Make a phone vault and go offline.

undefined

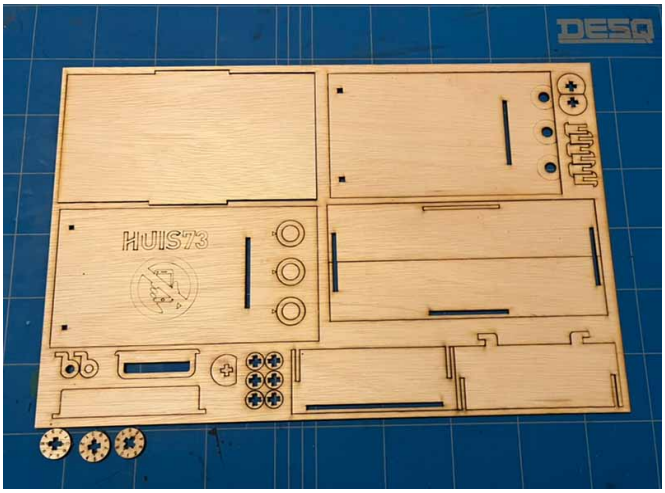
tools
- ☐ Laser cutter
- ☐ Sandpaper
- ☐ glue brush
- ☐ clamps

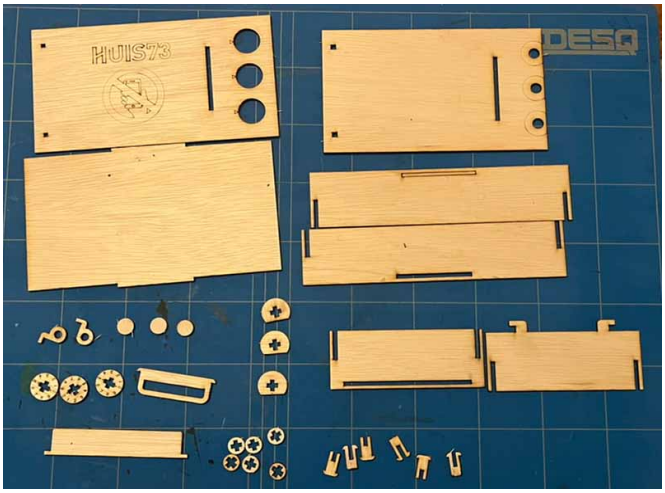
materials
- ☐ 3mm plywood
- ☐ Wood glue
- ☐ wax or candle wax

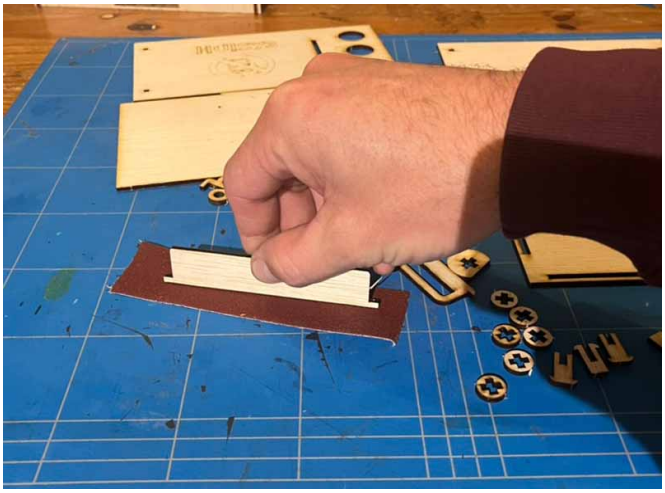


1 Cut out the parts

- Use a lasercutter to cut out the provided template.

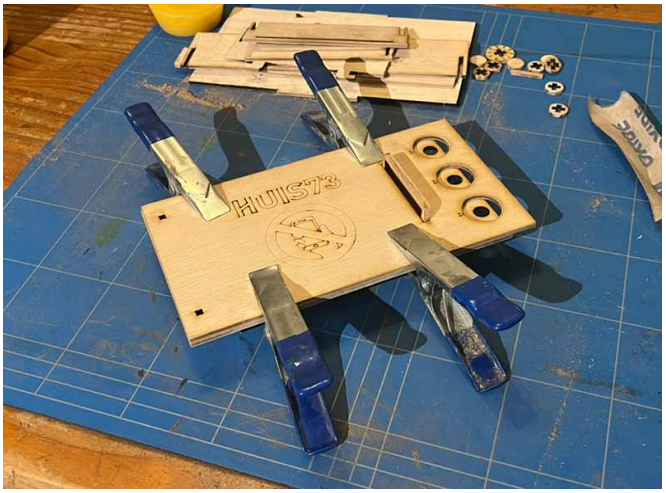






2 Sand the parts

- Punch the parts out of the sheet and sand the edges smooth with sandpaper. Be careful with the thin pieces.
- Once the dark layer from the laser cutting has disappeared you have sanded enough.
- Make sure the inside of the round holes and the outside of the number discs are sanded too.



3 The lid

- Put glue on the part with the small round holes with drawn circles around them. Make sure no glue gets inside the drawn circles.
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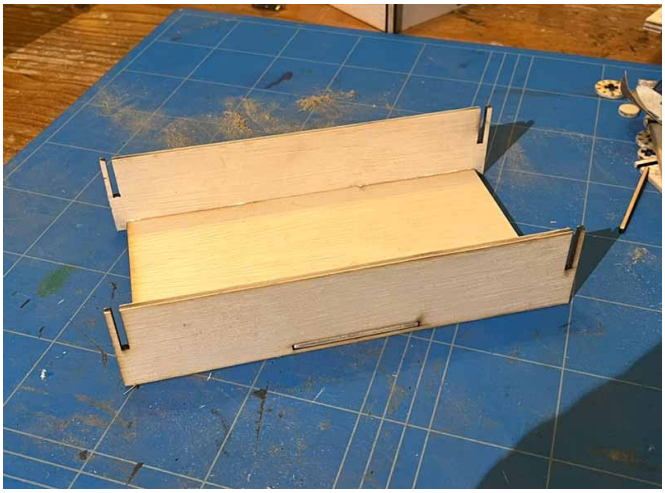
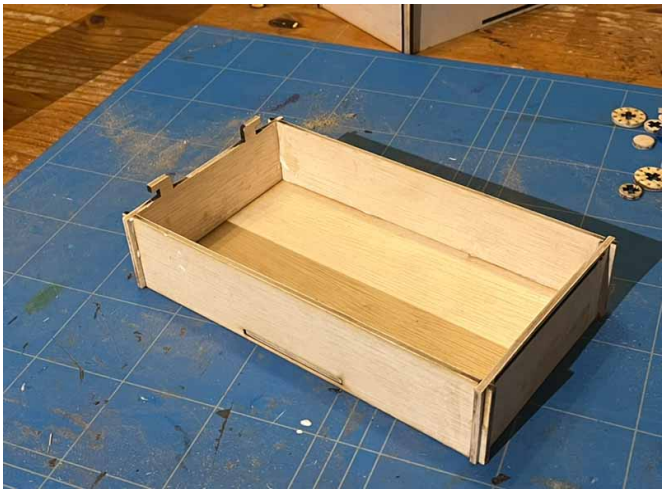
- Push the handle up from the bottom through the glued sheet. Use this to center the top sheet exactly.
- Clamp it with clamps.

4 First hinge loop

- Glue only one loop here. The other loop will be added later.

- Glue one of the hinge loops in place.



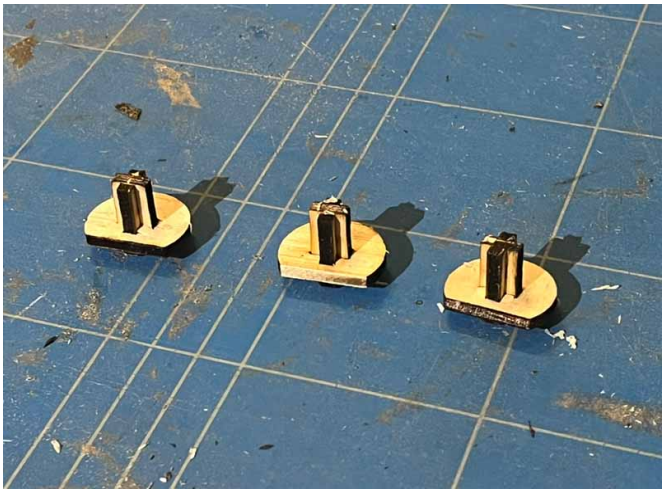


5 The box

- Attach the sides to the bottom. Use some glue to hold them in place.
- Put some glue in the slots for the short sides and slide the short sides into place.

6 Lock mechanism

- Sand a beveled edge on the small wood piece that goes into the side.
- Glue the small piece in place with the beveled edge facing down.



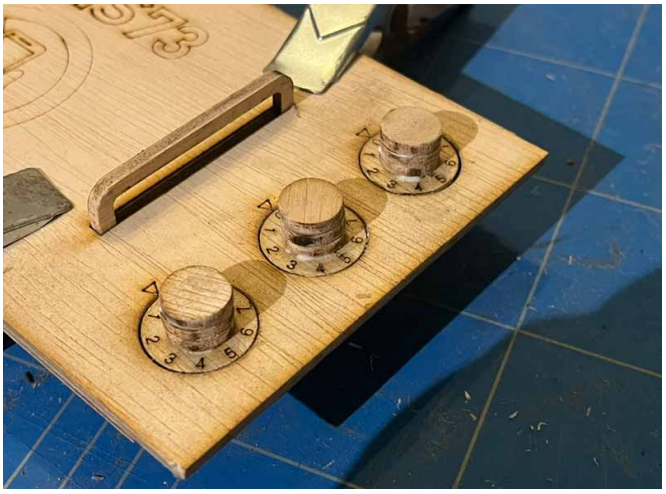
7 Lock mechanism

- Slide the pins together. No glue is needed for this.
- Put some wax on one side of the discs with a flat side.
- Slide the discs with the flat side onto the pins. The waxed side should face up.

8 Assemble lock mechanism

- The number rings have small triangular arrows. They point to the numbers you can use for your code.

- Insert the pins from bottom to top through the lid. Align the flat side with the bottom edge of the lid.
- Wax the bottom and side of the number rings.
- Slide the number rings onto the pins from the top. No glue is needed. Make sure the digit of your code lines up with the arrow on the lid.

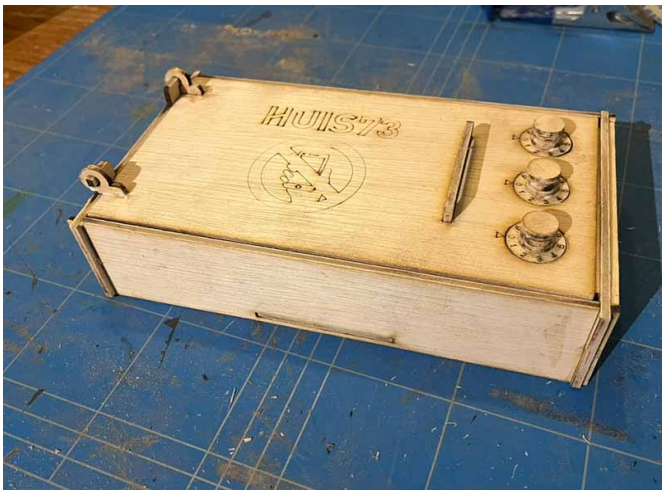


9 Turn knobs

- Put some glue on one of the pins that now stick out of the lid.
- Slide the discs with plus-shaped holes over the pin.
- Glue a small disc without a hole on top of the knob.
- Repeat for the other knobs.

10 Second hinge loop

- Slide the hinge loop that is already in the lid around the hinge pin of the box.
- Now glue the second hinge loop in place.



11 Done!

- Wait for the glue to dry and you're done!
- Put that phone away and play a board game with your family.