

Instruction Manual for the Construction of a Lock Box

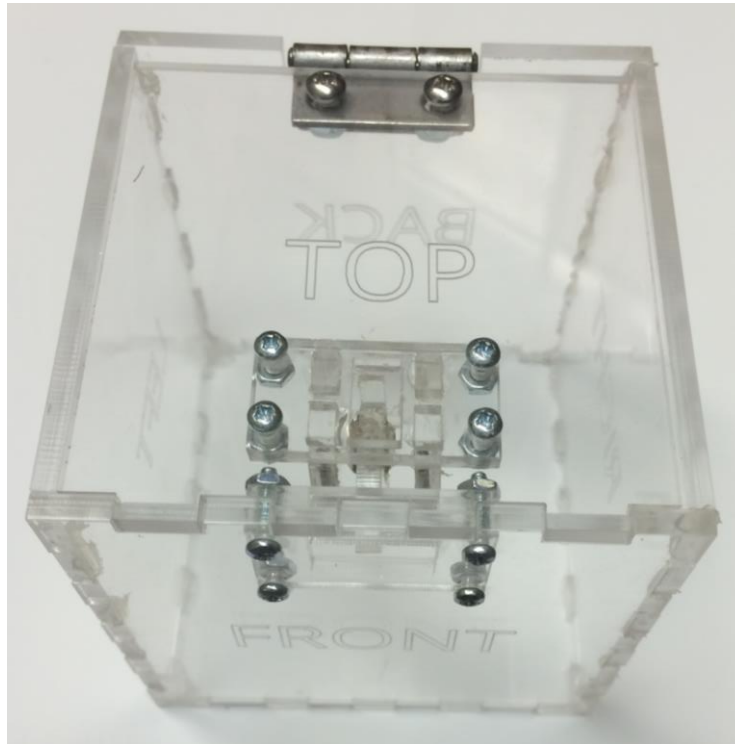
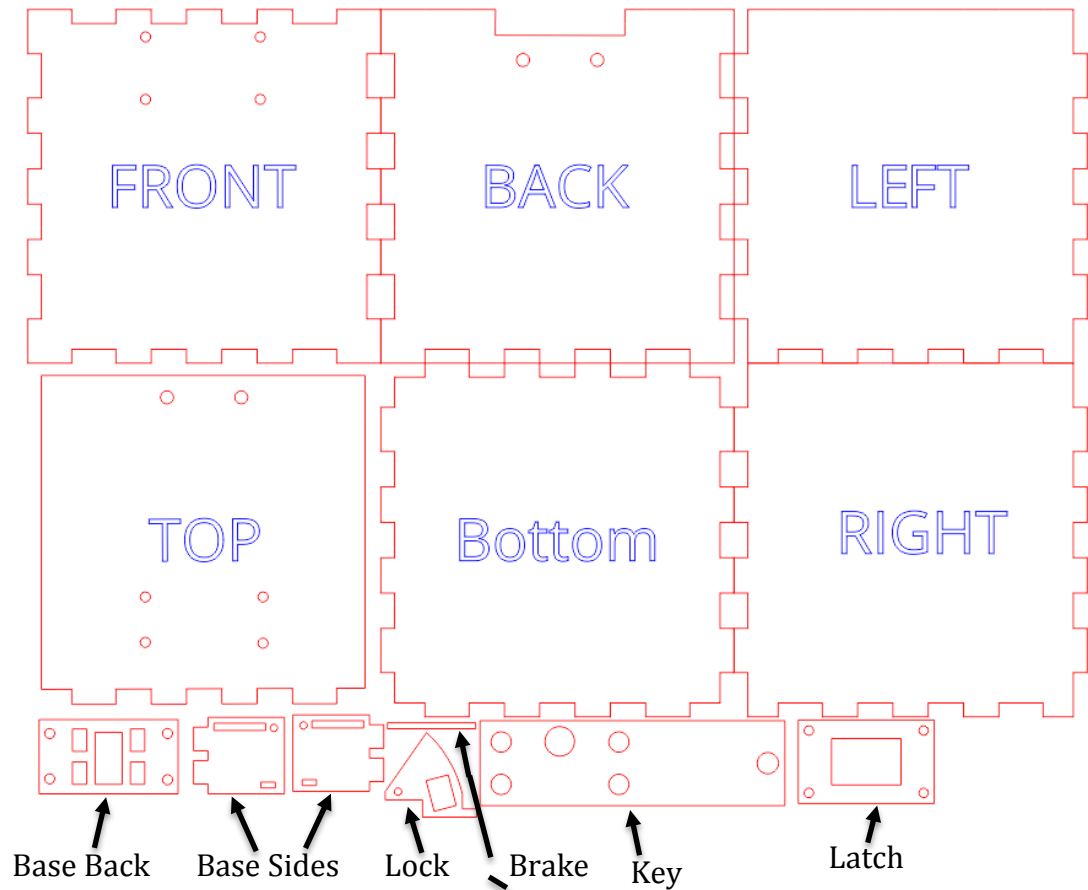


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Cutting the Parts:

1. Open the "TOTAL" file in Corel. Parts the parts will be cut out of 1/8" acrylic.

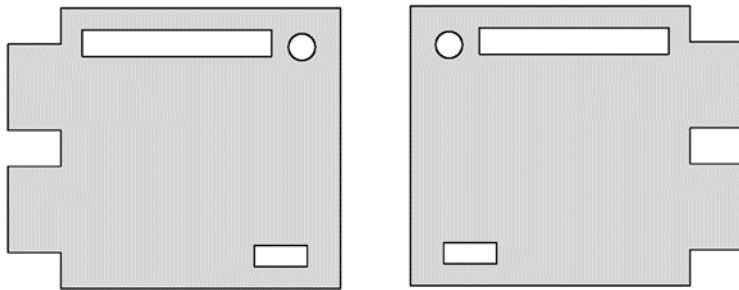


2. Open the Corel Print Dialogue.
3. Hit "Print"
4. Open the Laser Cutter program. **(use cast acrylic 0.125 thickness)**
5. Position your piece, focus the laser, and turn on the fan.
6. Press the Play Icon – watch for fires but do not stare into the bright white light.
7. When the part has been cut, remove the part.

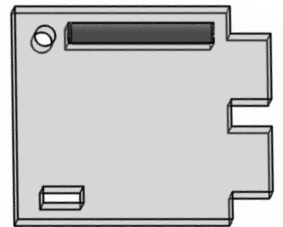
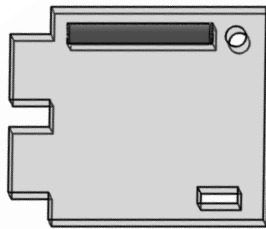
Assembly

The Lock

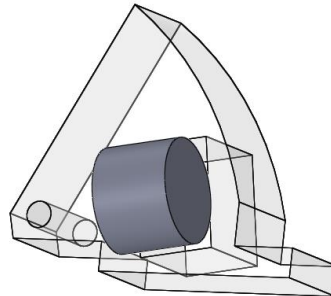
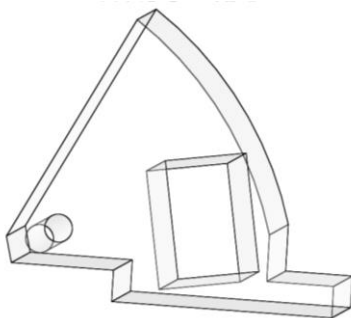
1. Obtain permission from your professor to turn on the hot glue gun. This gets very hot. Be careful and make sure there is something under the gun to collect dripping glue. Wait for the gun to fully heat up before using.
2. You will start with the base sides shown below.



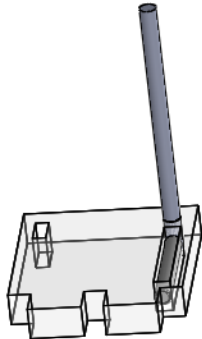
3. Take the 7/16" dowels and glue them into the slots at the top of the sides.



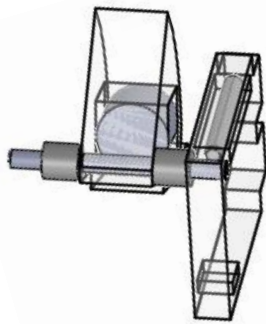
4. Next take the lock and glue the magnet into the hole.



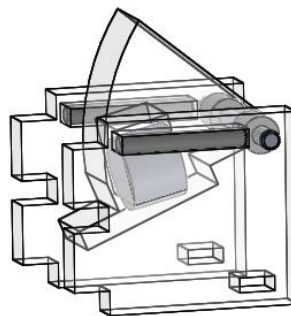
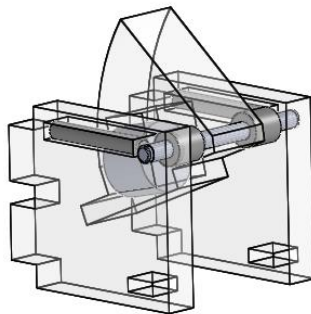
5. Take the $\frac{3}{4}$ " dowel and glue it into one of the sides so it sits flush with one of the edges. Make sure it is dry before continuing.



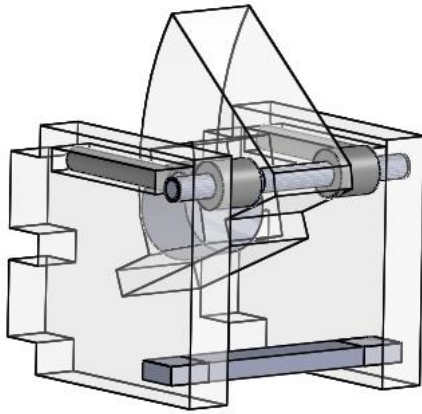
6. On the long dowel stack a spacer the lock then another spacer. Make sure that the lock has its tail facing the not flat side of the base side while the flat side of the lock faces the top of the base side.



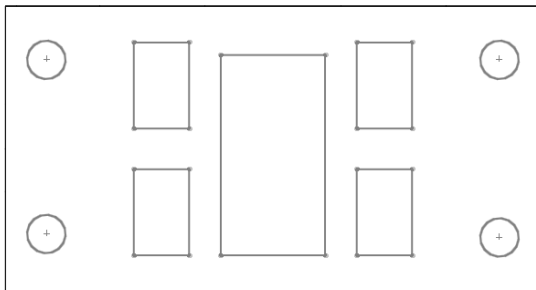
7. Place the other side on top of the last washer such that it faces the same way as the other side.



8. Slide the brake through the slots at the bottom of the back of the sides and glue it into place.

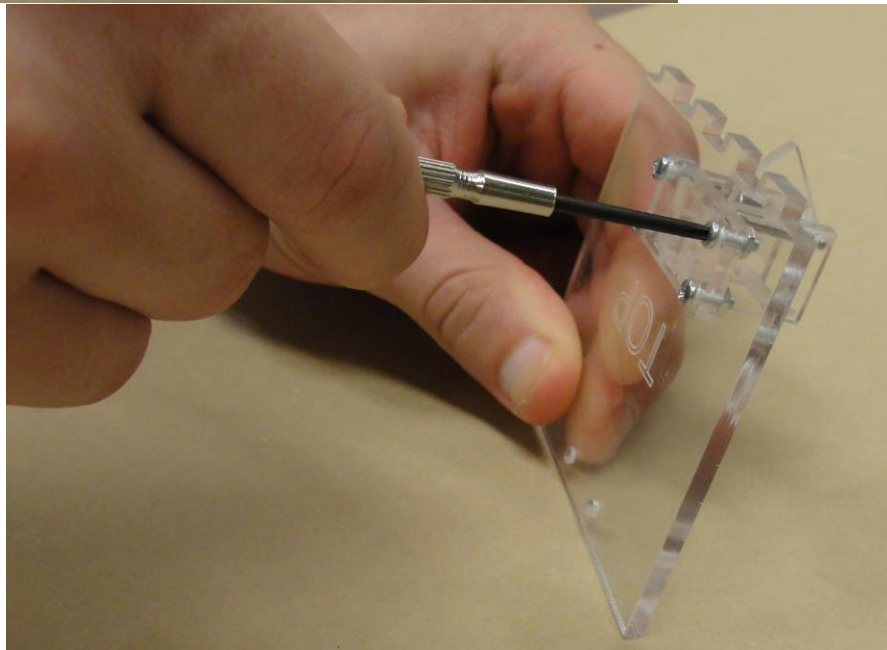


9. Take the base back and put glue in the

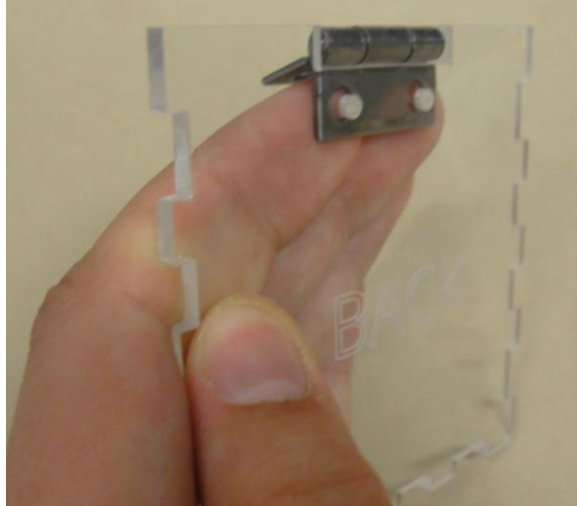


The Hardware

1. Attach the lock to the top plate with four 2-56 screws and hex nuts. Make sure the lock is on the back of the top plate and is facing the edge. Have the screw heads on the front of the top plate. Make sure to tighten down the screws once they are all in.



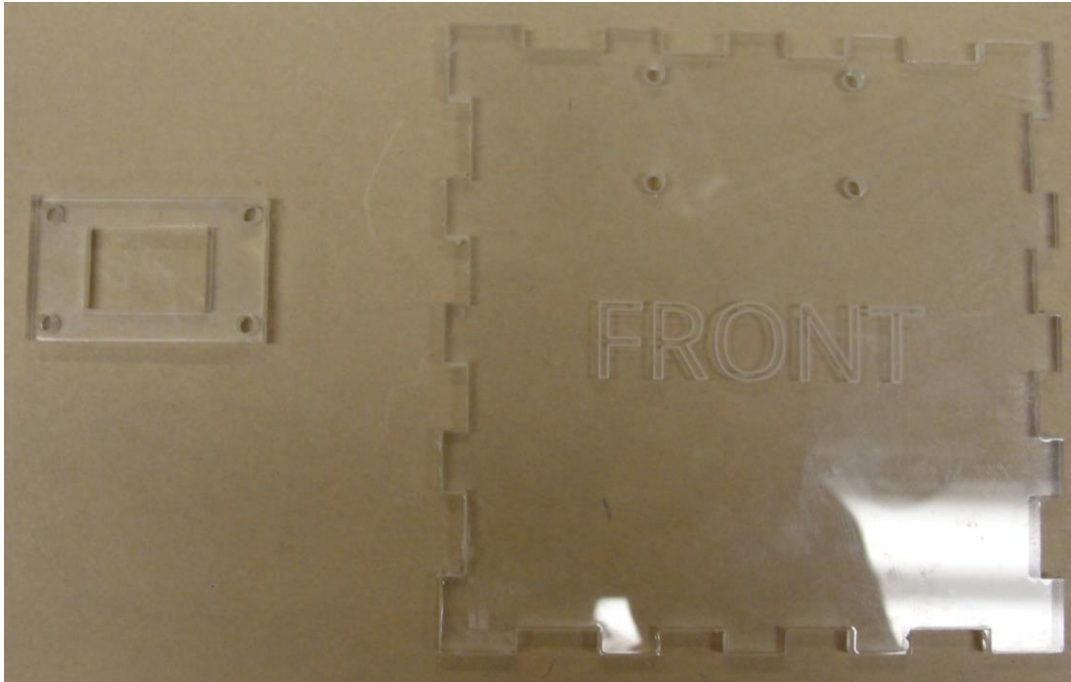
2. Attach the hinge to the back plate with two 4-40 screws and hex nuts. Make sure the hinge plate is on the back of the back plate and the protrusion rests in the gap. The screw heads should be on the front of the plate.



3. Attach the latch to the back of the front plate with four 2-56 screws and hex nuts. Make sure the screw heads are



on the front of the front.



Box

Assembly

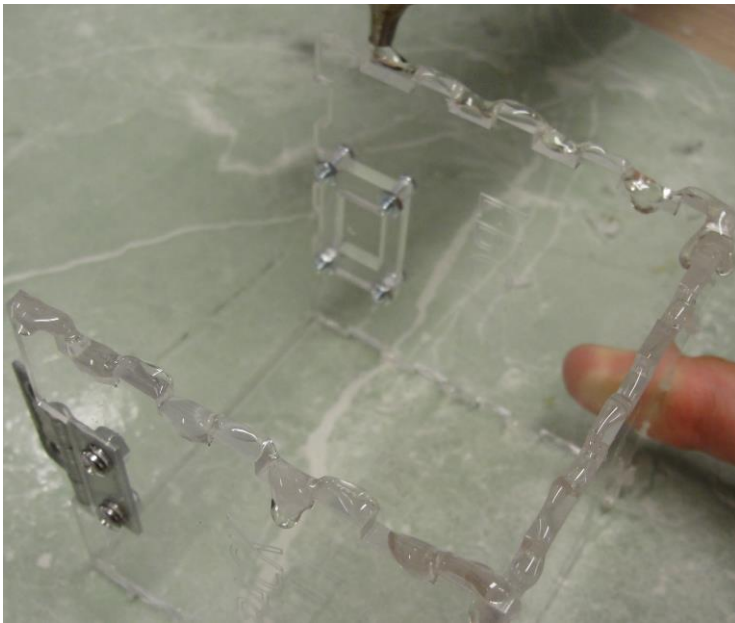
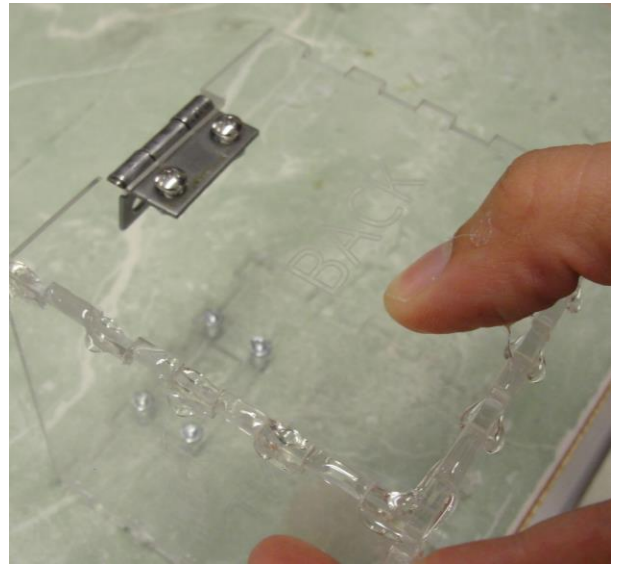
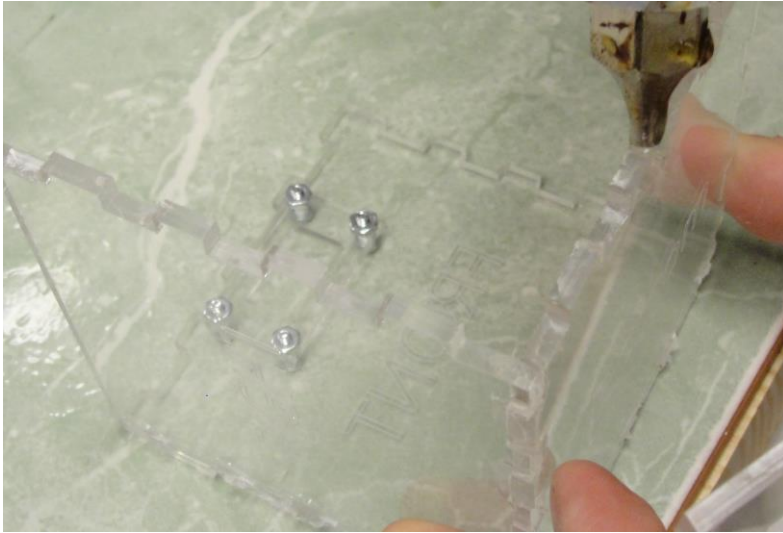
1. Place a line of glue on the edge of the bottom that attaches to the right side. Snap the right side into place and hold it there until the glue dries. You may want to use the edge of the table as a guide to get a right angle.



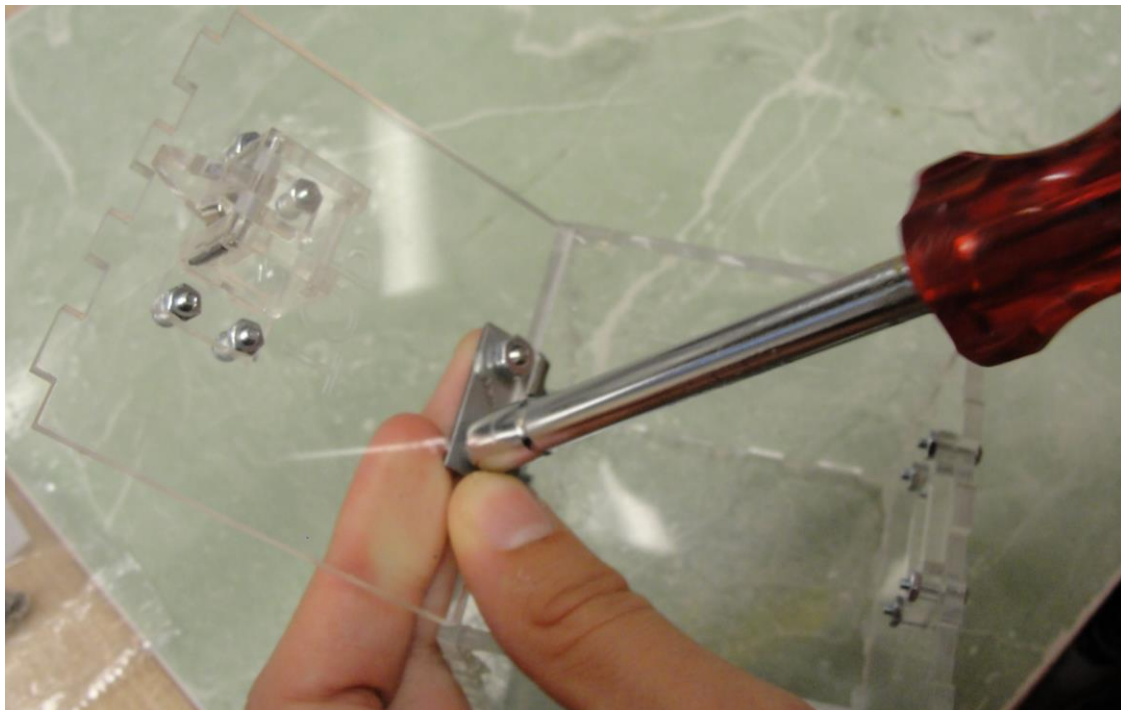
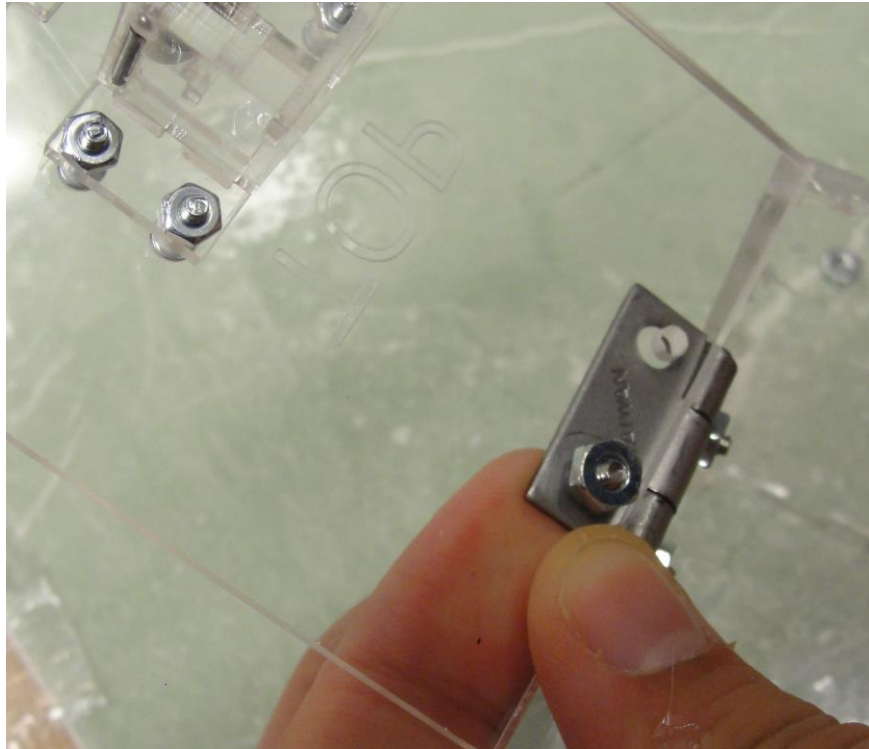
2. Place a line of glue along the edges that the front and right side share with the front. Snap the front into place and hold until glue has dried. Make sure the latch is on the inside of the box.



3. Repeat the last step with the back and left side. Make sure the hinge is on the inside of the box when you attach the back and that the sides are snapped snugly in place to avoid gaps.



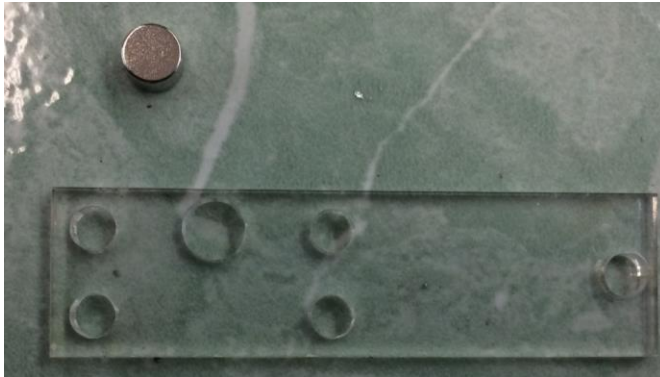
4. Now take the top and attach it to the hinge with two 4-40 screws and nuts. Make sure the hinge plate is on the back of the top plate and use a nutdriver to secure tightly.



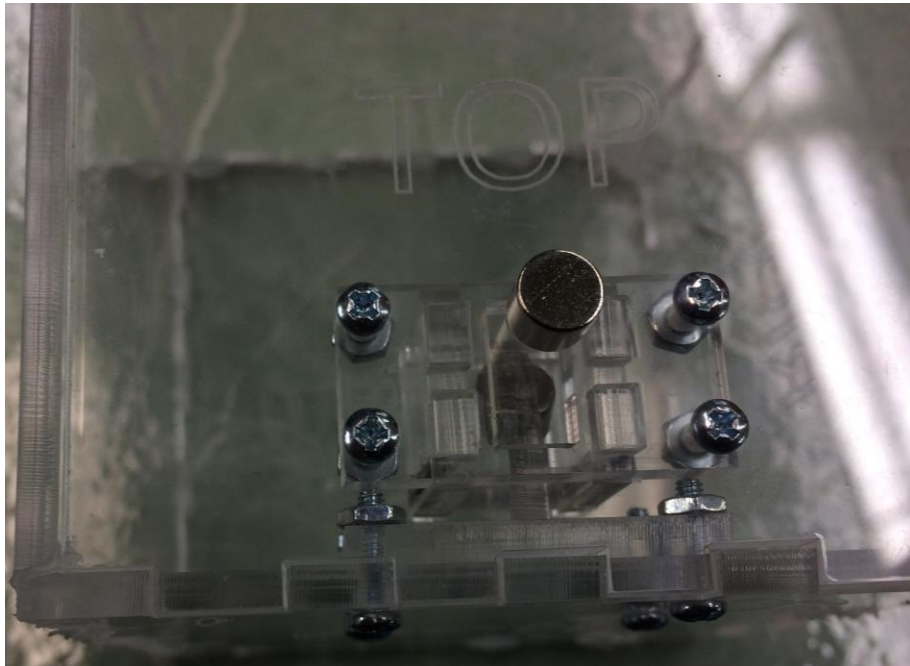
5. You can clear away excess glue with your fingers or with isopropyl alcohol.

The Key

1. Get the key and second magnet.



2. Find the side of the magnet that unlocks your box



3. Fill the magnet hole in the key with glue
 - * DO NOT place magnet near hot glue gun nozzle it will get stuck to it
 - * If you do get your magnet stuck it use pliers or tweezers to remove it, i.e. NOT your fingers



4. Then slide the magnet in trying to have the unlocking side of the magnet is flush with one of the faces



5. Huzza you have finished!