# Building a Waldteufel



### The Drum



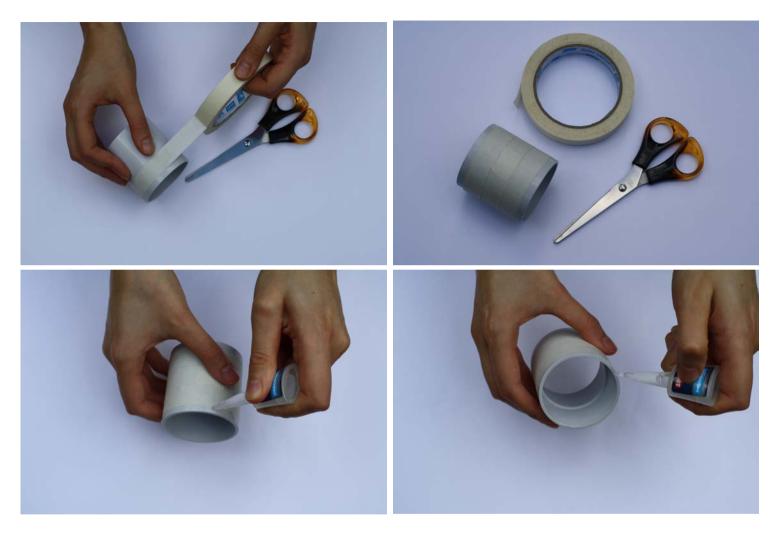
#### Materials you will need:

- Calf Skin (timpani head)
- 1 PVC pipe with approximate diameter
  40mm 75mm and length 50mm 80mm
- 1 cable tie

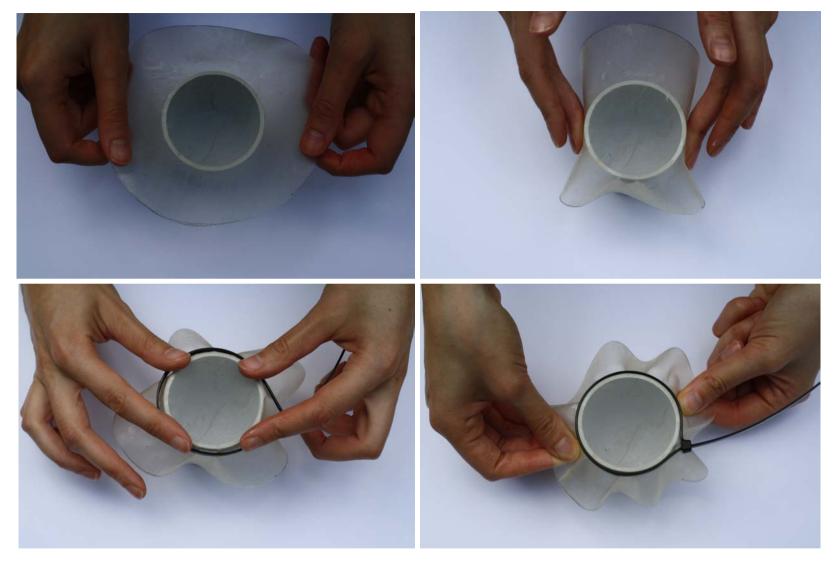
- Clear super glue
- Water bowl
- Scissors
- Painter's tape/ masking tape



- Draw a circle on the calf skin around the PVC cylinder (drum shell), adding three centimeters to the radius of the circle. As can be seen in the middle picture, the calf skin extends three centimeters around the shell.
- Cut out the calf skin circle and soak in tepid water for approximately 15 –
  20 minutes, until it becomes flexible and moldable.



- While the calf skin soaks, prepare the drum shell by wrapping a continuous line of painter's tape or masking tape around the cylinder, to protect the shell from super glue drops. Leave a half centimeter gap at the top.
- Once the calf skin feels flexible, leave it for a few more minutes while you promptly apply the super glue around the top and along the half centimeter edge of the drum shell, using the tape as a guide.



- Take the calf skin out of the water and shake to remove any excess droplets. Carefully place on top of the glued surface of the drum shell and slowly fold/press down the sides.
- Place the pre-looped cable tie around the edge and gradually tighten.
- Tighten the skin by gently pulling down on the sides until there is an even amount of pull across the surface and it appears smooth, then fasten the cable tie as tightly as possible.



- Set aside to dry overnight.
- Once dry, trim the excess calf skin around the edges of the drum and remove the cable tie. The painter's/masking tape can also be removed.

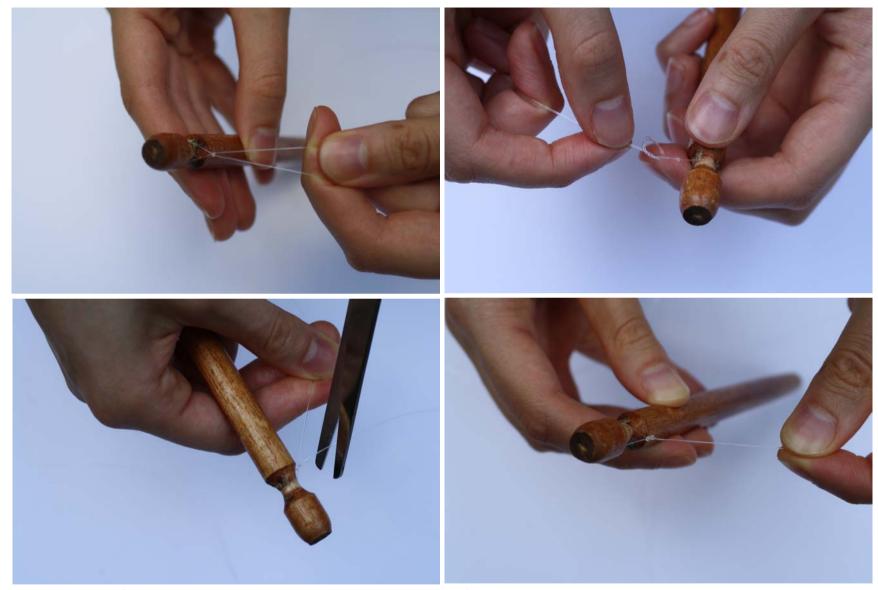
## From Drum to Waldteuful



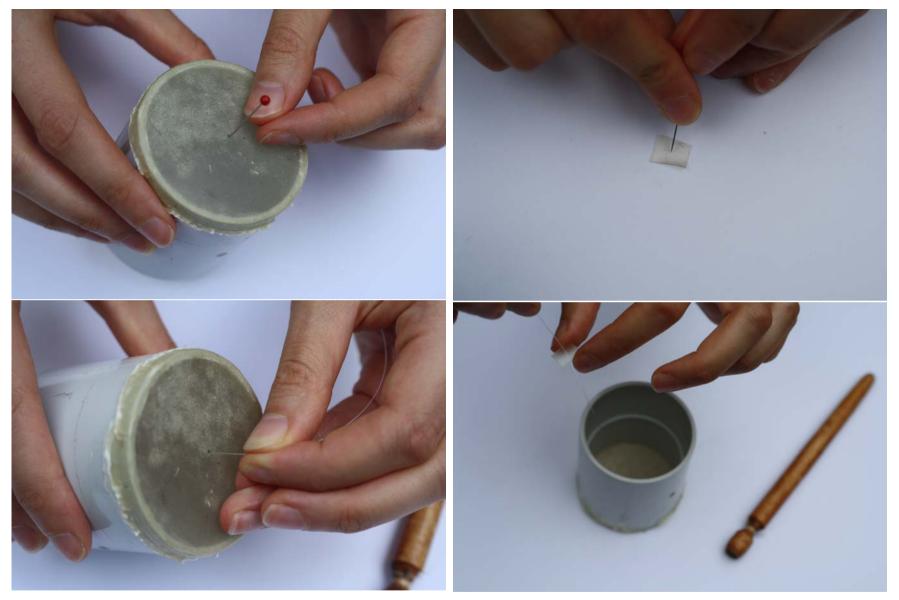
#### Materials you will need:

- Friction stick\*
- Fishing line

- Pin
- Scissors
- Rosin
- Calf skin square (offcut)



- Use the fishing line to tie a slip knot around the friction stick.
- Adjust the loop of the slipknot The loop must be tight enough to remain in the groove/ indent of the stick, while remaining loose enough to rotate freely.
- Once adjusted, secure the desired loop size with a regular knot and cut off one of the lengths.



- Use the pin to prick a small hole in the center of the drum, and another in the center of the small calf skin square.
- Thread the other end of the fishing line through the top of the drum, and then through the calf skin square.



- Secure approximately 15cm of fishing line between the drum head and the friction stick with a triple knot at the end of the fishing line (after the calf skin square), and then trim off the excess length.
- To finish, rub rosin in the groove of the friction stick to produce the friction required to activate the instrument. Over time, the rosin may need to be reapplied to maintain the required amount of friction.