



Thunder-Gourd Tutorial

A Tutorial by Ron Swank, RisingSunflowerFlutes.com

What is a Thunder-Gourd? Essentially, it is a drum made out of a gourd using animal skin or a synthetic drumhead with a spring attached to the bottom of the membrane. When the gourd is shaken, the spring will begin to vibrate and the vibrations are absorbed by the drumhead, and then amplified inside the hollow drum. The sounds are that of a thunder storm; it is impressive! Even your non-gourder spouse will be impressed!

Pictured above: Examples of Thunder Gourds with art work and resonator holes incorporated into the design.

To start off with, this is a fun and easy project for everyone. Whatever techniques you use on gourds, you can use on a Thunder-Gourd with just a couple more steps. In other words, if you love pyrography, carving, knotless netting on gourds, you can combine your preferred techniques with those needed to make a thunder drum. The tools and supplies you already

have for working on gourds will come in handy to finish or decorate your personal Thunder-Gourd.

The following list of supplies is essential for making your basic Thunder-Gourd:

- Clean gourd (for obvious reasons)
- “Thick” or “Gel” type **super glue/ CA Instant Adhesive** (Stick Fast, Titebond brands)
- Accelerator (NCF QUICK, green label, white can)—**optional** but comes in handy
- Spring
- Synthetic drumhead membrane (rawhide works well if you know how to work with it)
- Heat gun
- “Krylon” or any other type of sealant or finish
- 8” adhesive sanding disc (optional) Lowes or Home Depot
- Utility knife/ razor blade

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Thunder Drum continued



Photo showing the supplies needed to make the Thunder Gourd

Process:

1. **Choose the right gourd.** To begin, select a gourd that feels firm and solid. It can be any type as long as it is approximately 3/16 of an inch thick or thicker, and at least 4 inches in diameter, but you can experiment with any size and shape.

2. **Cut the bottom.** The bottom opening should be at least 3 inches in diameter; 4-6 inches is preferable.

3. **Clean out the inside of the gourd.** A thoroughly cleaned inside not only contributes to a clear sound (not muffled), looks professionally finished inside and out, and most importantly to prevent gourd debris from falling onto the membrane.



Gourds that have been cut and cleaned to make a Thunder Gourds

4. **Sand the bottom evenly.** Place the cut bottom of the gourd down on a level/flat surface to determine if it is perfectly flat so that once you glue on the drumhead, the glue will stick on evenly all around.

a. Initially you may want to use a belt-sander if there are high and low spots

b. Finish sanding by hand on a flat surface. The “adhesive sanding disc” comes in handy. Place the sanding disk on an even surface (such as a cutting-board) that can be clamped down so you can use it for this project or any other projects where it may come in handy. Hold the gourd firmly with both hands and rotate both clockwise and counter-clockwise until it is evenly flat.

• *A quick and helpful tip to make sure the bottom is completely flat:* Use a leveling guide to mark a line around the bottom where you are sanding. As you sand away, the entire line should disappear. Once it does, then it is perfectly flat!!

5. **Artwork.** Now that the gourd is ready, we can move onto the next step; the artistic you. You can wood-burn a design, carve whatever you want, paint it, stain it or simply varnish it; it’s all up to you.

a. It is important to have some sort of cut-out or opening on the gourd for a couple of reasons. It allows for the sound to be louder as opposed to keeping it enclosed and muffled. Keep in mind, there is no perfect formula to get the perfect sound. However, the type of gourd, the size, thickness and craftsmanship will play a role as to what sound you will get. The amount or size of the cutouts will make a difference in sound. The other reason is the opening allows heat to escape when shrinking the synthetic membrane.

b. You may choose to incorporate the opening into your design or simply place it on the back.

c. Drill the holes near the top for inserting a cord for hanging.

6. **Seal the gourd – Inside and out.** After your artwork is finished use the sealer of your choice to both the inside and outside of the gourd. While it won’t make a noticeable difference in the sound, sealing the inside will help prevent gourd dust from appearing on the membrane later on.

a. When the finish is dry, gently sand the bottom one more time to remove any varnish or sealant that may keep the glue from sticking to the bottom of the gourd.

7. **Attach synthetic membrane*.** Using a thick or gel type super glue allows you more time to apply it all the way around the gourd, and place the drumhead membrane before it starts to dry or set. Make sure you have a paper placemat or other disposable table covering to keep the glue from getting onto your table or workspace.



Membrane has been glued, but not trimmed yet

a. Once you have applied the glue, take a piece of the drumhead membrane and place it on the gourd. Run your finger carefully over the membrane to press it to the gourd without sliding the membrane (which can move before the glue sets), then flip the gourd over onto a flat surface like a table and gently press down to allow the glue to spread evenly and stick uniformly onto the drumhead and gourd. Hold it, pressing down, for about 15 seconds, and then let it dry on its own the rest of the way.

b. To speed up the process, spray along the edge with the accelerator which will cure the super glue instantly. **Word of caution:** not all accelerators are compatible with the synthetic drumhead, and may cause it to crack.

8. **Trim the excess membrane.** After the glue has dried completely, use a razor blade or utility knife and carefully trim off the excess material along the edges of the gourd.

9. **Heat-shrink the synthetic membrane.**** Make sure the glue is completely dry before proceeding and that you have indeed cut an opening of some sort for the heat to escape. Use the heat tool to heat-shrink the membrane. (Be very careful if you are using an industrial heat gun as it may melt the membrane.) If you're using a 2 temp heat gun, use the low setting.

a. Pre-heat your tool for 20 seconds. Keeping the heat gun about 2 inches away from the membrane and starting at the outer edges, work in a slow circular motion toward the center.

b. You will notice the membrane will take on a "wrinkling" or "wavy" effect, which is normal. This is actually pushing the drumhead as it heats and creating the drum effect. The membrane will begin to stretch and turn from a matte finish to a more clean finish.

c. Take your time and be patient with the heat gun working slowly but steadily without too much heat in the same area. You can tap on the tightened membrane to see there is no "give" and that you have a taught feeling. Should you accidentally burn the membrane or it pushes inward, you'll need to remove it and do it again with a new membrane.

10. **Attach the spring.** Using a pin or needle, prick a hole in the center of the drumhead where you will insert the spring. Then twist or screw in a couple of coils; enough to hold the spring in. Try spreading the first 2 coils of the spring very slightly with a pair of scissors. This can help you twist the spring into place.

11. **Test the sound.** Without touching the spring, shake the gourd to hear the thunder sound. If you are pleased with the sound, you can place a tiny drop of super glue where you attached the spring to keep it in place, and your Thunder-Gourd is done.

* Goat skin drum materials work well too, but are applied to the gourd wet and in the same manner as for other drums.

** Some people like the way it sounds omitting the heat-shrinking step.

There is a video link on my website, RisingSunflowerFlutes.com, on the thunder gourd supplies page, at the very bottom where I demonstrate the process as well.



Examples of Thunder Gourds, showing the bottom

If you have any further questions, or would like to order any supplies such as springs or synthetic drumheads, feel free to email me anytime at sunflowerflutes@yahoo.com, or find me on face book at **Ron Swank: Rising Sunflower Flutes and Thundergourds**. You can also visit my website to view more Thunder-Gourd photos and other projects I'm working on at: RisingSunflowerFlutes.com

Another source of supplies is Lyn Brown, 520-204-0480
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