



# **CRAFTING A YO-YO**

BY SCOT LANG

# A few things to know first...

The yo-yo we will make in this tutorial is crafted from wood. Without proper protection for your lungs and eyes, wood dust can be injurious. Wear a face mask appropriate to keep dust out of your lungs when sanding or filing on wood. Wood dust can also be highly flammable. Take precautions to minimize dust. The glue and varnish recommended in this tutorial can produce fumes that might cause irritation and be harmful. Make sure to use proper ventilation when using the glue indoors, and never spray varnish indoors. Also, sharp instruments will be used to carve on the wood. Always protect yourself when carving by wearing protective gloves and finger guards as well as eye protection.



# You will need a yo-yo kit and some other materials...

Your kit includes two pre-drilled 2 ½" wood disks, a one inch long ¼" wood dowel, two 1/8" plywood shims, a rubber band, a yo-yo string, and instructions. Other things you will need:

- A straight blade whittling knife of your choice.
- A ruler, 1/8" increments recommended.
- A sharp pencil
- Glue. I recommend using any kind of good wood glue
- 120 and 180 or 220 grit sanding paper and a sanding block
- Varnish or other clear finish of your choice.





# Begin by smoothing.

Temporarily assemble the two discs with the dowel, closing them together completely. Use sandpaper and block or file to smooth the circumference and edges. The sandpaper shown is a 120 grit sanding belt with a 1" board cut to fit loosely inside the belt.

Make sure to turn yo-yo discs and sand uneven spots to ensure uniformity.



# Mark the areas where wood is to be removed.

- With a pencil and a ruler, mark a circle  $\frac{1}{2}$ " from the outer edge on the outer face of each disc.
- Then mark a line around the circumference  $\frac{1}{4}$ " from outer edge on each disc.
- Turn the disc over and mark a circle  $\frac{1}{4}$ " from outer edge on the inner face of each disc.
- Now mark a line around the circumference  $\frac{1}{8}$ " from the inner edge of each disc.



# Remove the excess wood.

Some tips on carving the discs:

- Use a keen straight flat blade for best results.
- Carve with the grain. There are four directions in which to carve when carving on a disc.
- Try to make flat cuts without gouging deeply. Deep cuts like stop cuts are hard to smooth out or sand away.
- As always, wear protection!





# Sand to smooth and round edges.

- Use 120 grit sandpaper and a sanding block to smooth out all tool marks on all surfaces.
- Round corners and edges as well.
- Finish sand with 180 or 220 grit sand paper and a sanding block.

**Before...**



**... After**



# Decorate!

Here is the fun part! Carve, burn, paint or embellish your yo-yo discs to your heart's desire. A couple of hints:

- Keep carved designs shallow and symmetrical.
- If you add material, be sure to do so in a radially symmetrical fashion, and so that each disc is the same weight.
- Finish with your choice of varnish. My preference is a clear gloss urethane spray.





# Yo-yo assembly

- With a tooth pick, apply enough glue into the hole to snugly hold the dowel, but not so much that it oozes out of the hole when the dowel is inserted.
- Set the plywood shims in the space between the discs. Do not use glue on the shims! They will be removed later.
- Apply glue to the other disc and insert other end of dowel, trapping the shims between the discs.
- Wrap rubber the rubber band around the discs to clamp shims in place. Set aside to dry as recommended by the glue manufacturer.



# Attach string

- Find the packaged bright colored yo-yo string.
- Remove from package and find the looped end
- Open up the looped end and slip it over one disc. Be sure the string realigns itself uniformly and twists evenly without “cockling.”
- Make a loop for your finger and violá!

