

Baby Bass Tootophone -- a reed instrument

by **Thinkenstein** on September 29, 2010

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Intro: Baby Bass Tootophone -- a reed instrument

This is a small reed instrument with a mighty deep voice for its size. It belongs to the Tootophone family, of which I am the father (see: <http://www.instructables.com/id/pvc-TOOTOPHONE-a-musical-reed-instrument/>). You might call this one Baby Bass.

The rubber reed is a new variation, one that gives it the deep voice. It is not as springy as stiffer plastic reeds, and is probably a little heavier. That makes it vibrate more slowly and create lower pitches. The reed is made with a new clay-like rubbery product called Sugru.

The silicone rubber cartridge body adds resonance and volume.

It is intuitively easy to play, with no fingering. Be sure to click on the .mp3 file in the last step to hear how it sounds.



Image Notes

1. The mouthpiece is made of plastic tubing from a discarded ballpoint pen. The Sugru rubber reed is taped in place with electrical tape.

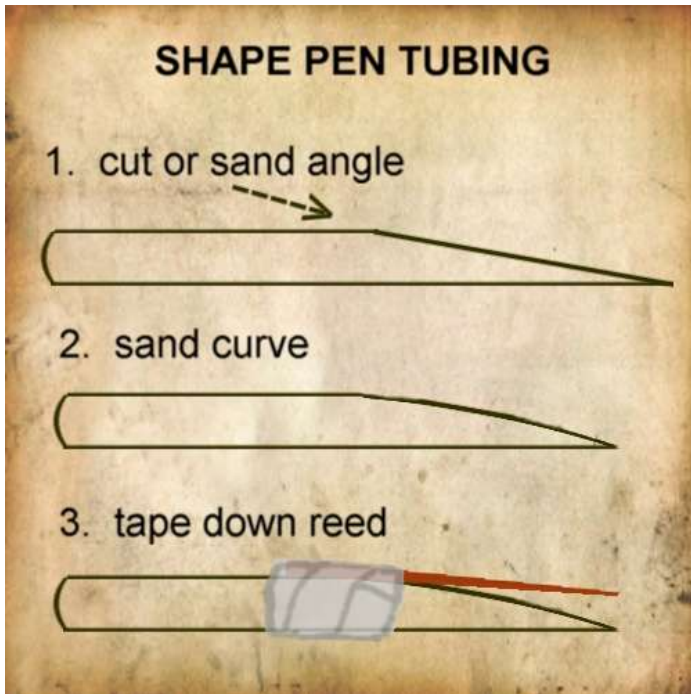


step 1: Forming the Mouthpiece

The mouthpiece is made from the plastic tubing of a discarded ballpoint pen. The original angle cut can be made with a saw, or just sanded down with heavy sandpaper.

The most important part of the shaping is the curve in step 2 of the diagram. By having a continual curve, instead of a straight cut, the reed will always form a tangent line when the player's lip presses it to the body of the mouthpiece. The reed must have room to vibrate in order to make sound. Shorter vibrating sections will vibrate more rapidly and make higher pitches.

Shape the curve by pressing the tubing down on sandpaper, pushing it forward and back in a rocking motion.



step 2: Making the Reed Material

Put some Sugru on a non-stick work surface. (I used polyethylene plastic.) Spread it around with your finger, or a spreading tool such as a palette knife. I tapered the thickness so that the reed would be thinner at the vibrating end of it.

Reeds can be thicker or thinner, depending on personal preference. Any variation will make it perform differently. If at first you don't succeed, try making another one.

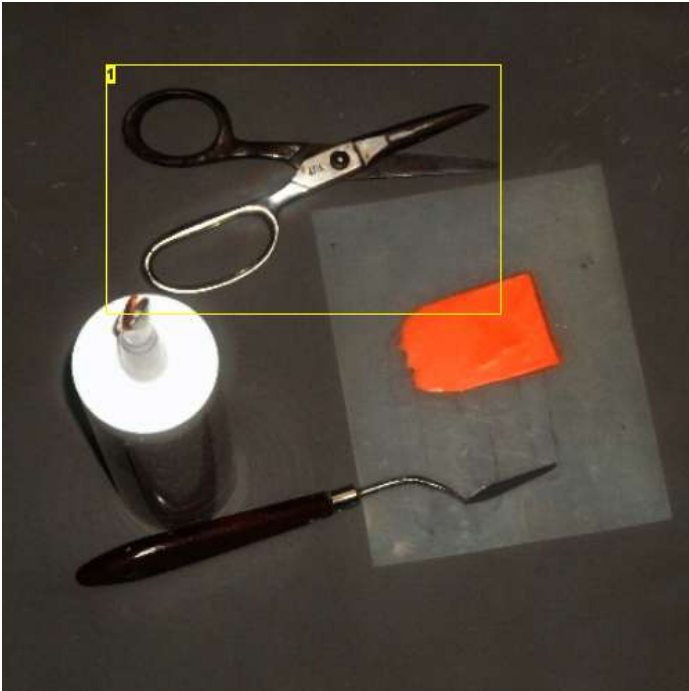


Image Notes

1. Scissors easily cut the sugru strips, and trim them to fit the plastic tubing of the mouthpieces.

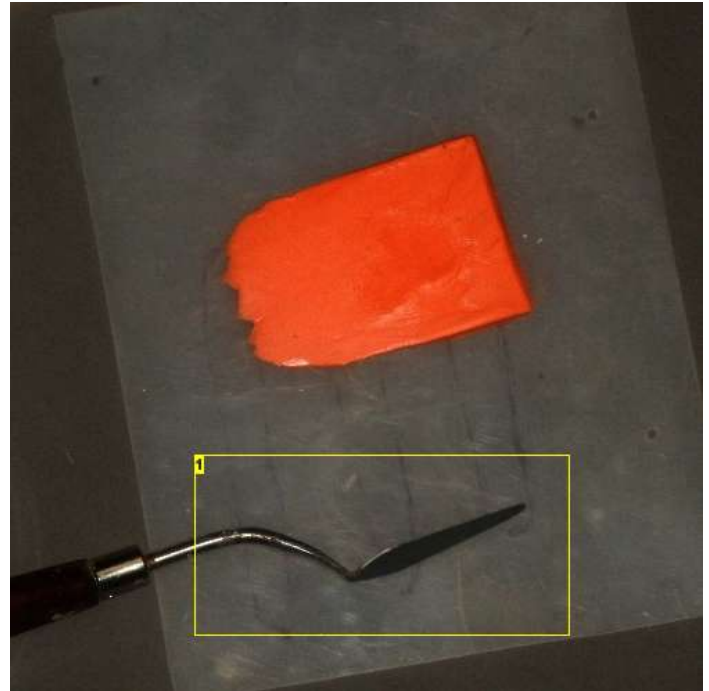


Image Notes

1. Sugru can be shaped by hand, but I used a painter's palette knife, like a small trowel.

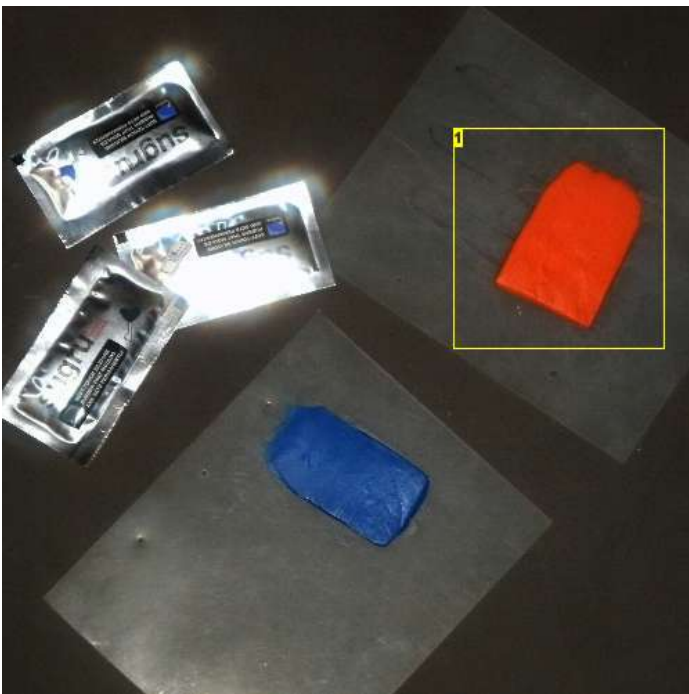


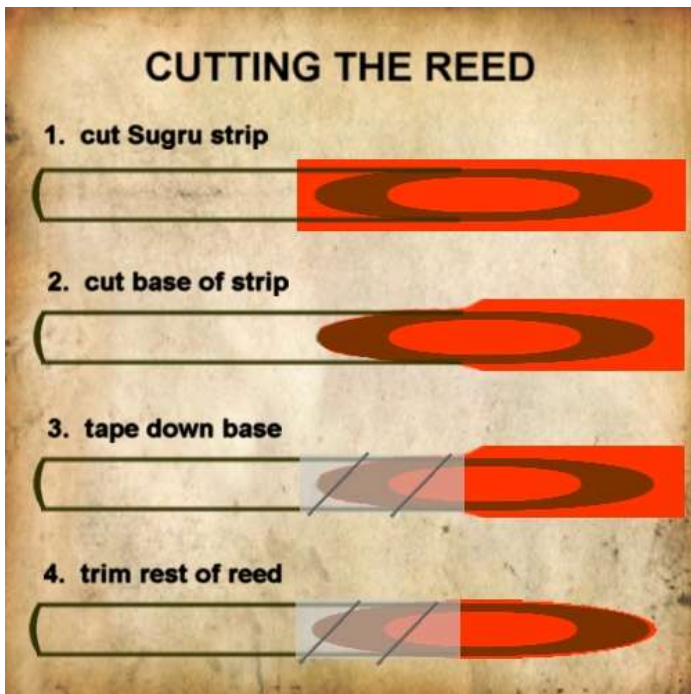
Image Notes

1. Sugru comes in a variety of colors.

step 3: Shaping the Reed

Peel the Sugru off the non-stick work surface and cut a strip of it a little wider and longer than you need to make the reed.

Trim the base of the reed first and tape it to the plastic tubing of the mouthpiece. That holds the Sugru steady as you trim around the mouthpiece, using scissors, to make the final contour of the reed.

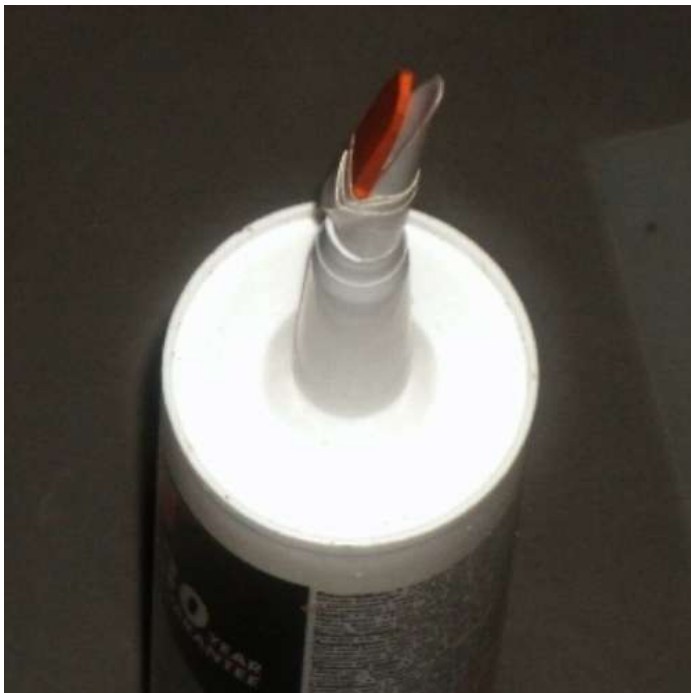


step 4: The Silicone Rubber Cartridge

When I empty a cartridge of silicone rubber, I always clean out and save the cartridge. The Baby Bass Tootophone is one of many good uses for the empty containers. Always think of recycling.

Since the nozzle on the cartridge tapers, it is a simple matter to trim it with a knife to make a tight fit for the plastic tubing of the mouthpiece. I cut mine even tighter and then used a drill to ream it out to the right diameter.

The mouthpiece can just push in with a friction fit, but if it fits loosely, you can always use a little electrical tape to hold it in place.



step 5: Playing the Baby Bass Tootophone

Playing a tootophone is a lot like singing, only without using the vocal cords.

Curl your lower lip into your mouth some, to avoid slobbering all over the reed and making it sticky with saliva. Position your lip up and down the reed, depending on the sounds you are after. Press hard, or softly with your lip.

Breath control is important. Practice. Practice.

There is no fingering with the Baby Bass. Use both of your hands to cup the end of the body, opening and closing the air escape to modify the notes you make. It's kind of like doing a wa-waa with the mute on a trumpet.

step 6: Hear the Baby Bass Tootophone

You should be able to click on the file icon below to open an .mp3 audio file and hear what the Baby Bass sounds like.

New instruments open up opportunities for new music. It will be interesting to see what this new instrument leads to.

File Downloads



SUGRU TOOT (26).mp3 (914 KB)

[NOTE: When saving, if you see .tmp as the file ext, rename it to 'SUGRU TOOT (26).mp3']

Related Instructables



**pvc
"TOOTOPHONE"**
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**SUGRU Slide
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Alto Saxophone**
(could be
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tenner,
baritone, ect.)
Guide by
waverider894



saxophone tips
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