

# Paper Cup Bass



## HAVE YOU EVER WANTED TO PLAY AN INSTRUMENT? OR CREATE ONE OF YOUR OWN?

By following the instructions below, you'll be able to make a miniature version of a country music instrument called a washtub bass! Learn how to produce different notes and pitches with your new instrument and you'll be able to start a band in no time!

### WHAT YOU'LL NEED:

- Paper or Styrofoam cup
- 1 wooden chopstick
- 2 paper clips
- 1 rubber band
- Scissors
- Tape



### LET'S BUILD!

1. Use the scissors to cut the rubber band so that it is no longer a loop.
2. Tie one end of the rubber band to one of the paper clips. Tape the paper clip to one end of the chopstick, making sure not to tape the rubber band as well.
3. Flip the paper cup upside down and attach the chopstick to the paper cup with tape. The end of the chopstick which has the paper clip attached should be at the top.
4. Use another paper clip to poke a hole in the cup close to the edge of the cup on the side which is opposite the chopstick. Widen it enough to allow the rubber band to pass through.
5. Once the rubber band is passed through, stretch it out to the bottom of the cup. Make sure there is enough tension for the rubber band to make a sound when plucked. If this is not the case, cut the rubber band shorter.
6. Tie the other end to the second paper clip. Open it up so that one side of the paper clip is 'hooked' over the lip of the cup. Tape it to the cup so that it is secure.

### LET'S MAKE MUSIC!

Place the cup on a flat surface. Pluck the 'string' to make it vibrate and echo inside the cup. To produce different notes, hold the string against the chopstick at different points.

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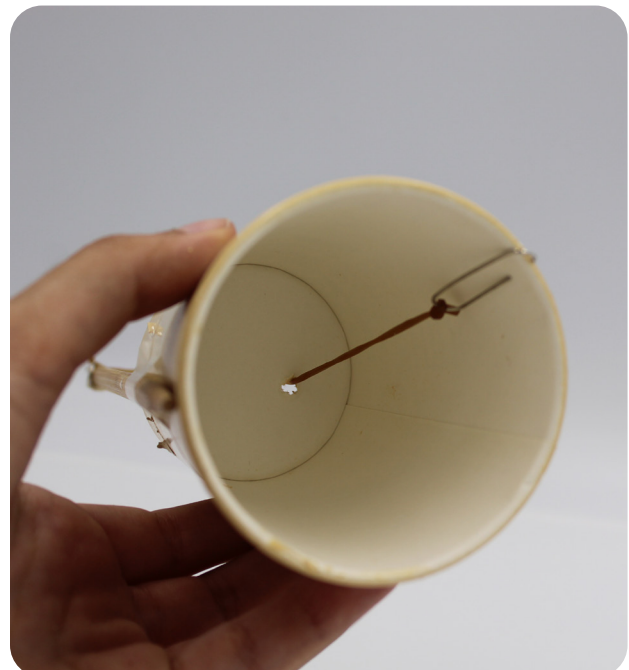
Attach the paper clip and rubber band to the chopstick



Attach the chopstick to the cup



Create a hole in the cup and pass the rubber band through it



Attach the rubber band to the cup using a second paper clip

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## THINGS TO NOTICE

Place your finger high up on the chopstick and press down on the string (longer length) and listen to the note produced.

Now press down on the string lower down on the chopstick, making the length of the string shorter and shorter. Does the pitch of the note get higher or lower? Why?

Keep this in mind when you visit Esplora and interact with these exhibits:

