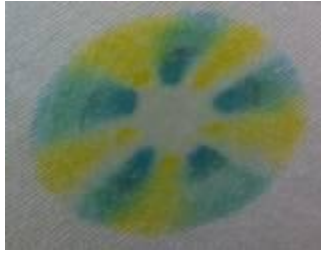


# Sharpie Pen Tie Dye



You can use colored Sharpie pens on a t-shirt to produce a tie-dye effect.

Normal tie dye can be messy and time-consuming. You can get a really cool tie dye effect using colored Sharpie pens on a t-shirt. This is a fun project that even young kids can try. You'll get wearable art and may learn something about diffusion and solvents. Let's get started!

## Sharpie Pen Tie Dye Materials

- colored Sharpie pens (permanent ink pens)
- rubbing alcohol (e.g., 70% or 90% [isopropyl alcohol](#))
- white or light-colored cotton t-shirt
- plastic cup

## Let's Do Tie Dye!

... except you don't have to tie anything.

1. Smooth a section of the shirt over your plastic cup. You can secure it with a rubber band if you want.
2. Dot a Sharpie to form a circle in the center of the area formed by the cup. You are aiming for a dotted ring about 1" in diameter. You can use more than one color.
3. Drip rubbing alcohol on the blank center of the circle. I used the extremely low-tech method of dipping a pencil in the alcohol and dotting it on the shirt. After a few drops, you will see the alcohol spread outward from the center of the ring, taking the Sharpie ink with it.
4. Continue adding drops of alcohol until you are satisfied with the size of the pattern.
5. Allow a couple of minutes for the alcohol to evaporate before moving on to a clean section of the shirt.
6. It doesn't have to be a circle. You can make stars, triangles, squares, lines... be creative!
7. After your shirt is completely dry (alcohol is flammable, so don't use heat on a damp shirt), set the colors by tumbling the shirt in a hot clothes dryer for ~15 minutes.
8. You can wear and wash your new shirt like other clothes now.

## How It Works

The ink in a Sharpie pen dissolves in alcohol but not in water. As the shirt absorbs the alcohol, the alcohol picks up the ink. You can get new colors when different colors of ink mix together. The wet ink will diffuse, or move from areas of higher concentration to lower concentration. When the alcohol evaporates, the ink dries. Sharpie pen ink doesn't dissolve in water, so the shirt can be washed.