



## LIGHTSABER ON THE FLIP SIDE INSTRUCTABLE

My son gave me a challenge of making a General Grievous cosplay for him. I try to keep true to craftsmanship and maintain at least a 75% fabrication so I decided to construct the lightsabers. So after multiple visits to the dollar stores and hardware stores I came up with the following instructable. Enjoy.

### TOOLS AND MATERIALS

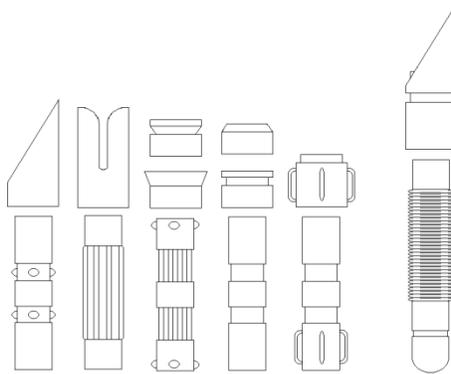


#### Tools

- Dremel
- Drill
- Utility knife
- Utility scissors or shears
- Measuring tape or ruler
- PVC pipe cutter

## Materials

The materials for this instructable depends on your design for each light saber you are building, so it all actually starts from your design and finding materials that would fit your design. I drew a few basic designs before foraging for build materials. With is "map" in hand I found what I needed (these designs where for the top of the light saber [hilt] and the bottom part of the handle).



### Must haves:

- Different diameter PVC pipes (I used 1 inch and  $\frac{3}{4}$  primarily)
- Pipe fittings (end caps and connectors and reducers)
- Bubble wands (these will make up your blades; 3 for each light saber)
- Flash light (up to you what you want to spend I found some at a dollar store that worked perfectly)
- Spray paint (Black, Silver, Gold)
- Clear glaze spray for plastic
- E 6000 craft glue (you can use any clear craft glue but this is my favorite)
- Loctite super glue (I find this one works best with plastic)

### Miscellaneous items:

You can spend a lot of money to mock up your light saber but I tend to be a bit frugal and have actually called myself a junkyard craftsman. This list is what I found in dollar stores or that little section in Party City with the party bag stuffers that fit into my design specs.

- Yoyo
- Medicine cup
- Coffee stirrers
- Toothpicks
- Aluminum wire (a coat hanger would have worked)
- Whistle tube
- Dowel
- Zip ties

## PROCEDURE

### The Blade

1. Empty the bubble wands into any clean container/jar (so you can save it for the kids, why waste)
2. Wash out your bubble wands and set aside to dry

3. Once dry, cut off the top end off each wand



4. With a couple drops of super glue connect your bubble wands (remember 3 for each blade), and set them aside to cure, to make sure glue does not react with spray glaze



5. I waited an hour (you can work on your handles during that time) then spray painted the blades with the clear glaze with a couple coats. This step ensures the bond of your three bubble wands and you don't have to rely on just the couple drops of super glue to keep your blade together.

## The Handles

1. The handle build all revolves around the flashlight. The flashlight I bought from the dollar store allowed me to use a 1 3/4 and a 3/4 PVC pipe connector to start as my base. I had to widen the diameter of the 3/4 PVC pipe connector and I used the Dremel to achieve this, so that the end cap of the flashlight fit snugly. I also took this time to sand a couple of PVC reducers that had a lip to make them uniformly cylindrical.



2. The rest of the handle build depends on your individual design and imagination. Things to remember: 1) the end diameter of the top of your hilt need to be able to accept the base of your bubble wand (the ones I had fit perfectly into a  $\frac{3}{4}$  PVC pipe connector; 2) cut all your pieces and glue together what you need to as individual pieces with the E 6000 craft glue. Then do a mock up to see if it is the way you pictured it to be. You then take it apart and paint to your liking (I put about 3 coats). After dry then glue it all together. The way I constructed the handle, I am able to remove the end cap and replace the batteries and the top so I can change the bulbs if necessary. The following pictures are the pieces and end product.



## Pulling it Together

1. Now is the easiest part, insert the base of the blade into the top of the hilt. You can glue it into place but I chose not to so I can take it apart for ease of transport/travel. These are **not battle ready** light sabers but you can swing them around and provide a pretty good show.

